

Exhibit No.:
Issue: Class Cost of Study, Revenue Allocation, Rate Design
Witness: Kavita Maini
Type of Exhibit: Rebuttal Testimony
Sponsoring Parties: MECCG
Case No.: ER-2021-0312
Date Testimony Prepared: December 20, 2021

**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-2021-0312**
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Rebuttal Testimony of

Kavita Maini

On behalf of

MIDWEST ENERGY CONSUMERS GROUP

December 20, 2021



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-2021-0312
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 their behalf.
2. Attached hereto and made a part hereof for all purposes are my rebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2021-0312
3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

/s/ Kavita Maini
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

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File No. ER-2021-0312

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for Electric Service Provided to)
Customers in the Missouri Service Area of)
the Company)

Rebuttal 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 TESTIMONY IN THIS CASE?**

11 A. Yes, I filed direct testimony on behalf of the Midwest Energy Consumers Group
12 (“MECG”). My direct testimony provided recommendations regarding Empire
13 District Electric Company, A Liberty Utilities Company’s (“Empire” or “Company”)
14 class cost of service study (“COSS”), revenue allocation to classes and rate design for

1 the Large Power (“LP”), General Power (“GP”) and Transmission Service (“TS”) rate
2 schedules.

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

5 A. The purpose of my rebuttal testimony is to address Staff’s proposed revenue allocation
6 as well as the time of use (“TOU”) rate design recommendations made by Staff and
7 Empire for the LP class. The fact that I do not address any particular issue should not
8 be interpreted as my implicit approval of any position taken by the Company or Staff
9 on that issue.

10
11 **II. SUMMARY**

12 **Q. PLEASE SUMMARIZE YOUR TESTIMONY AND RECOMMENDATIONS.**

13 A. The following is a summary of my testimony and recommendations:

14 **Section III: Staff’s Revenue Allocation Proposal**

15
16 Staff’s equal percent increase proposal is not based on class cost of service related
17 responsibility, which is the appropriate basis for guiding class revenue requirement
18 changes. As such, Staff’s proposal ignores moving classes closer to cost thereby
19 failing to promote equity amongst classes. In order to promote equity, the
20 Commission should adopt my recommendation to make revenue neutral shifts
21 sufficient to eliminate 25% of the interclass subsidies based on the class cost of
22 service study results presented in my direct testimony. After making these
23 recommended revenue neutral adjustments at present rates, any overall change in
24 revenue requirements can be applied across the board to the classes on an equal
25 percentage basis.

26
27
28 **Section IV: TOU Rate Design Proposals**

29
30 Staff’s proposed TOU rate design proposal is problematic in that, aside from being
31 complicated and subject to volatility in the TOU periods from one rate case to another
32 because of its reliance on dynamic market price relationship, Staff proposes to make

1 the LP TOU rate mandatory. Such a proposal could have many unintended
2 consequences including increasing the potential for rate migration.

3
4 I recommend that any new rate must be (a) designed properly to send accurate pricing
5 signals, (b) based on embedded costs, (c) simple to understand and (d) offered on an
6 optional basis to LP customers as a starting point.

7
8 Compared to Staff's proposal, I prefer the Company's proposed approach of rolling
9 out its new TOU rate (called the LPT rate) because the Company has considered the
10 importance of customer acceptance and also proposes the new rate as an option.

11
12 The one recommended tweak regarding the LPT rate proposal is that the Company
13 establish an on-peak window for determining monthly billing demand as this will
14 provide an appropriate enhancement for a demand pricing signal in the time of use
15 rate.
16

17 **III. STAFF'S REVENUE ALLOCATION PROPOSAL**

18 **Q. WHAT IS STAFF'S REVENUE ALLOCATION PROPOSAL?**

19 A. Staff recommends that the non-pre-MEEIA revenue requirements of each existing rate
20 schedule be increased on an equal percentage basis to determine the revenue
21 responsibility of the classes.

22
23 **Q. DID STAFF RELY ON CLASS COST OF SERVICE STUDY RESULTS TO**
24 **RECOMMEND AN EQUAL PERCENT INCREASE?**

25 A. No. Staff did not conduct a class cost of study analysis.
26
27

28 **Q. DO YOU SUPPORT STAFF'S REVENUE ALLOCATION PROPOSAL?**

29
30 A. No. Staff's proposal is not based on class cost of service related responsibility, which
31 is the appropriate basis for guiding class revenue requirement changes, nor does Staff
32 provide any meaningful rationale for its equal percent recommendation. As such,
33 Staff's proposal ignores moving classes closer to cost thereby failing to promote
34 equity amongst classes. This is because under Staff's proposal, certain classes will

1 continue to be subsidized substantially whereas other classes will be unfairly asked to
2 continue paying more than their cost of service based responsibility. As shown in
3 Figure 8 of my direct testimony, and confirmed by Empire's class cost of service
4 study, many classes including GP, LP, TS, TEB and CB produce revenues under
5 current rates that significantly exceed their class cost responsibility. On the other
6 hand, the residential class continues to produce revenues under current rates that are
7 far below its cost responsibility and, therefore, continues to be heavily subsidized by
8 these classes. Thus, if Staff's proposal were implemented, the much needed progress
9 to get classes closer to costs would remain stalled, which is neither fair nor reasonable
10 for classes that will continue to pay more in rates and subsidize other classes.

11 In order to promote equity, the Commission should adopt my recommendation
12 to make revenue neutral shifts sufficient to eliminate 25% of the interclass subsidies
13 based on the class cost of service study results presented in my direct testimony. After
14 making these recommended revenue neutral adjustments at present rates, any overall
15 change in revenue requirements can be applied across the board to the classes on an
16 equal percentage basis.

17
18 **IV. TIME OF USE RATE DESIGN PROPOSALS**

19 **Q. WHAT IS STAFF'S RATE DESIGN PROPOSAL FOR THE LP CLASS?**

20 A. The major provisions of Staff's mandatory TOU proposal for the LP class consist of
21 the following:

- 1 • Staff proposes separate peak¹, intermediate and off-peak energy charges for weekdays
2 and weekends by summer, winter and shoulder seasons respectively. Staff identified
3 the time differentiated periods by analyzing LP load data and market pricing data for
4 the test year. In addition to the time and seasonally differentiated energy charges,
5 Staff proposes to retain the current facilities demand charges and modify the billing
6 demand charge to a coincident peak demand charge.²
- 7 • Staff proposes this new rate as a replacement and not an optional choice for the
8 customers being served on the LP rate. Thus, Staff’s TOU proposal is mandatory for
9 LP customers.
- 10 • Staff recommends that any increase in revenue requirement ordered in this case for the
11 LP class be applied only to the energy charges.

12
13

14 **Q. DO YOU SUPPORT STAFF’S PROPOSED CHANGES TO THE LP RATE**
15 **DESIGN?**

16 A. No. For a variety of reasons specified below, I do not support Staff mandatory
17 industrial TOU proposal:

18 First, using LP load and market price data for one year is not adequate to
19 develop time differentiated energy charges by season. These definitions may make
20 sense for the test year. However, given the dynamic nature of the market prices,
21 relying on test year pricing patterns could have the unintended consequence of
22 increasing volatility in the base rates. This is because the patterns that exist in the test

¹ Peak period is proposed for summer months only.

² A coincident peak demand charge would identify each customer’s demand at the time that the monthly system peak is established. This contrasts with a non-coincident peak demand charge which would consider the customer’s highest demand during the month regardless of whether that demand is set coincident with the system peak or at some other time during the month.

1 year may not be the same in the following years, which means that the time of use
2 definitions would be constantly subject to change. Setting up a rate design where the
3 potential for changing time of use definitions on a regular basis is high, will send
4 confusing pricing signals to customers and is not desirable.

5 Second, in order to encourage customers to adopt new rate options, those rate
6 options should be simple to understand. Further, customers should also be educated
7 on the impacts of these options compared to the existing rates. As currently proposed,
8 the rate design is complicated and not easy to understand especially if customers are
9 not familiar with or currently utilizing time of use based options. Furthermore, Staff
10 has not provided any evidence regarding the impacts of these rates on LP customers.

11 Third, given that LP customers are not familiar with these rates, let alone the
12 impacts of the new proposal, it would not be reasonable to make these rates mandatory
13 at the present time. Imposing such mandatory TOU rates for an industrial class poses
14 many more complications than for the residential class. Load changes for the
15 residential class largely involves programming a thermostat or changing habits to run
16 a washer / dryer at nighttime hours. Expecting changes in the industrial class is much
17 different as it may involve union issues associated with scheduling of employees,
18 changing production processes, or timing of plant maintenance.

19 Fourth, given the complexity of the rate design and related issues associated
20 with Staff's TOU proposal, there are tremendous concerns with class migration. As
21 mentioned, Staff's proposal only applies to the LP rate class. It is possible that
22 customers, currently served in the LP class and concerned about the implications of

1 Staff's mandatory TOU rate proposal, will migrate to the GP class.³ Such a concern is
2 an unintended consequence of Staff's proposal.

3 Fifth, Staff has not conducted any impact analysis to ascertain the impact of its
4 proposed rate design on LP customer costs. Further, Staff indicates that its proposed
5 rate design is preliminary and pending the provision of more detailed billing
6 determinants from Empire (See Schedule KM-2R). Therefore, I will not have the
7 opportunity to full vet this rate design proposal or evaluate its impacts. I also note that
8 in past cases the Commission has raised concerns with the tenuous nature of the
9 industrial class in the Empire service area given the uncompetitive nature of Empire's
10 industrial rates. Mandating a rate design, without adequately considering the impact
11 of such a proposal on Empire's industrial rate class is not reasonable. Further, Staff
12 has not identified any utilities that have instituted mandatory TOU rates for industrial
13 customers similar to those identified by Staff. (See Schedule KM-1R)

14 Sixth, as mentioned, Staff builds its TOU proposal around its belief that any
15 increase for the LP class be recovered through an increase in energy charges with no
16 change to class demand charges. As demonstrated in my direct testimony, since fuel
17 costs are declining and fixed costs are being recovered through energy charges, the
18 demand charges are much lower than cost-based rates would deem appropriate thereby
19 resulting in misleading pricing signals. Staff's proposal to apply any revenue
20 requirement increase to energy charges will further exacerbate this problem.

21
22
23
24

³ Page 22 of Staff's Class Cost of Service Report only provides some rate design concepts being contemplated by Staff for GP.

1 **Q. WHAT DO YOU RECOMMEND?**

2

3 A. I recommend that any new TOU rate must be (a) designed properly to send accurate
4 pricing signals, (b) based on embedded costs, (c) simple to understand and (d) offered
5 on an optional basis to LP customers as a starting point. Customers need to be
6 educated on the new rate design and its impacts. It would make sense to implement
7 shadow billing for a period of time so that customers on the current rate could observe
8 the impacts of switching to the new rate and conduct “what if” analysis if they shifted
9 production in response to the time of use pricing signals. The adoption of the new
10 rates would be more effective by first taking these important steps.

11

12 **Q. HAS THE COMPANY PROPOSED A TIME OF USE RATE APPLICABLE TO**
13 **LP CUSTOMERS?**

14 A. Yes. Mr. Gregory Tillman proposes a conventional time of use rate, Schedule LPT,
15 which consists of time differentiated, on and off-peak energy charges. Mr. Tillman
16 testifies that the on-peak is broadly defined as the periods of the day in which system
17 loads are the highest and off-peak times are associated with the remaining periods in
18 which the loads are typically lower. The rate is designed to be revenue neutral
19 meaning that on average, customers in the class would pay the same for their
20 consumption (assuming no modification in usage pattern) regardless of the rate they
21 choose. This rate consists of higher fixed cost recovery from the billing demand
22 charges compared to the LP rate. The facility charge is the same.

23

24

The LPT rate will initially be limited to no more than three customers that have
a maximum demand of 5 MW or greater during the previous 12-month period. After

1 the first year, the Company indicates that it may expand the program incrementally or
2 make the rate available to any customer taking service on the LP rate schedule.

3 The proposed rate also includes a “Best Bill Guarantee” which indicates that, if
4 after the first year the total annual charges are higher than what would be the case
5 under the current LP rate, the participating customer(s) will receive a one-time bill
6 credit for the difference.

7
8 **Q. DO YOU PREFER THE COMPANY’S PROPOSED TOU APPROACH TO**
9 **THAT RECOMMENDED BY STAFF?**

10 A. Yes. I appreciate that the Company has considered the importance of customer
11 acceptance as an important determinant in its proposed approach and support the
12 Company’s position that the new time of use rates should be an option and not
13 mandated. Furthermore, I support the Company’s proposal to incur costs to educate
14 LP customers on the logistics behind the TOU rate as well as the potential benefits to
15 such a rate. In order to promote education and awareness of this new rate to all
16 customers on the current LP rate, I also recommend that shadow billing using the
17 proposed LPT time of use rate be provided to them on a monthly basis.

18
19 **Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING THE**
20 **COMPANY’S PROPOSED LPT RATE DESIGN?**

21 A. At present, Company proposes that the billing demand in the LPT rate be measured
22 the same way as the current LP rate, which is the highest fifteen-minute kilowatt
23 demand registered at any time during the month. I suggest that the Company establish
24 an on-peak window for determining monthly billing demand as this will provide an

1 appropriate enhancement for a demand pricing signal in the time of use rate. That is to
2 say, the TOU rate is designed to entice customers to shift usage to off-peak hours.
3 Customers should be able to shift such usage without a concern that they will establish
4 a higher demand during the off-peak hours that will result in a higher billing demand
5 charge.

6
7 **Q. IS THE COMPANY REQUESTING COMMISSION APPROVAL TO**
8 **ESTABLISH A TRACKER AS PART OF THE EFFORT TO INTRODUCE**
9 **TIME OF USE RATES?**

10 A. Yes, Mr. Tillman indicates the following on pages 16 and 17 of his direct testimony:
11 “As the Company does not have a history regarding the impact on the revenue related
12 to the non-fuel portion of the TOU rate and in order to mitigate the potential impact on
13 the Company’s recovery of its authorized revenue, Empire is requesting a tracker for
14 these costs. During Empire’s next Missouri rate case, the Company will request the
15 recovery of the balance recorded in the tracker.” The tracker would apply to revenue
16 impacts associated with customers participating in time of use rates in residential,
17 commercial and large customer classes respectively.

18
19 **Q. DO YOU SUPPORT THE COMPANY’S REQUEST FOR A TRACKER?**

20
21 A. No. I do not believe that a tracker is necessary at this time because the Company is
22 well accustomed to the concept of rate migration. For example, customers appear to
23 switch between the GP and LP rates and such switching has not resulted in the need
24 for a tracker. Further, while I am not an attorney I have been advised by legal counsel
25 that requests for trackers are allowed only for extraordinary circumstances.

1 Introducing new rates and migration between rate schedules is not an extraordinary
2 circumstance that would justify the creation of a tracker mechanism. Finally, should
3 the impact of such migration be significant, nothing prevents the Company from filing
4 a rate case.

5

6 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

7 **A Yes.**

Missouri Public Service Commission

Respond Data Request

Data Request No.	0385
Company Name	MO PSC Staff-(All)
Case/Tracking No.	ER-2021-0312
Date Requested	11/24/2021
Issue	Rate Design - Rate Design
Requested From	Nicole Mers
Requested By	David Woodsmall
Brief Description	Rate Design
Description	Is Staff aware of any utilities / jurisdictions that have instituted mandatory time of day rates for industrial customers similar to that advocated by Staff in this case? If yes, please identify all utilities / jurisdictions of which Staff is aware that have implemented this rate design. Please update on a monthly basis throughout the remainder of this rate case.
Response	Staff has not performed a review as requested by this request. Data Request Response provided by Sarah Lange (sarah.lange@psc.mo.gov).
Objections	NA

The attached information provided to **Missouri Public Service Commission** Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the **Missouri Public Service Commission** if, during the pendency of Case No. **ER-2021-0312** before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information. If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the **MO PSC Staff-(All)** office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g. book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title number, author, date of publication and publisher, addresses, date written, and the name and address of the person(s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to **MO PSC Staff-(All)** and its employees, contractors, agents or others employed by or acting in its behalf.

Security :	Public
Rationale :	NA

Missouri Public Service Commission

Respond Data Request

Data Request No.	0386
Company Name	MO PSC Staff-(All)
Case/Tracking No.	ER-2021-0312
Date Requested	11/24/2021
Issue	Rate Design - Rate Design
Requested From	Nicole Mers
Requested By	David Woodsmall
Brief Description	Rate Design
Description	Has Staff conducted an impact analysis of its industrial rate design on any particular industrial customers? If yes, please provide that impact analysis. If no, please explain why Staff has not conducted such an analysis. Please update on a monthly basis throughout the remainder of this rate case.
Response	No. Empire has not made relevant customer hourly loads available at this time. As noted in its Large Power rate design recommendation at page 24, Staff's rate design recommendation presented in its Rate Design Report is preliminary and pending the provision of more detailed billing determinants. Data Request Response provided by Sarah Lange (sarah.lange@psc.mo.gov).
Objections	NA

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Security :	Public
Rationale :	NA