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Witness: Tim M. Rush
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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2010-0355

REBUTTAL TESTIMONY

OF

TIM M. RUSH

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

Kansas City, Missouri
December 2010

REBUTTAL TESTIMONY

OF

TIM M. RUSH

Case No. ER-2010-0355

Q: Please state your name and business address.

A: My name is Tim M. Rush. My business address is 1200 Main Street, Kansas City, Missouri, 64105.

Q: Are you the same Tim M. Rush who prefiled Direct Testimony in this matter?

A: Yes.

Q: What is the purpose of your Rebuttal Testimony?

A: The purpose of my Rebuttal Testimony is to respond to the testimony of certain witnesses of the Staff of the Missouri Public Service Commission ("Staff"), the Office of the Public Counsel ("OPC") and intervenors regarding the subjects of i) annualized/normalized revenues; ii) rate design; iii) streetlight offerings and other tariff changes; and iv) a change to the Company's Rules and Regulations.

Specifically I address:

i) the Direct Testimonies of Staff witness Michael Scheperle; Barbara Meisenheimer representing the OPC; Maurice Brubaker representing the multiple industrial parties including Ford Motor Company, Midwest Energy Users Association, Missouri Industrial Energy Consumers, and Praxair, Inc. ("Industrials"); Dr. Dennis Goins representing the U.S. Department of Energy ("DOE"); and Michael Noack representing

Missouri Gas Energy ("MGE") regarding their recommendations on rate design and MGE's issue regarding facilities extension practices;

ii) the Staff Report regarding street lighting; and

iii) the Staff Report regarding other tariff issues including various rate and rule changes including but not limited to the removal of the SGS – Primary All-Electric rate, addition of a Residential-Other Use tariff, removal of the Incremental Energy Rider, removal of the Mercury Vapor street lighting category, and the change to the collection.

RATE DESIGN

Q: Please explain the Company's position regarding rate design in this proceeding.

A: The Company is proposing that the requested increase be spread to all customer classes and all rate components on an equal percentage basis.

Q: Have you reviewed the Direct Testimony provided by the parties in this case on both class cost of service study and rate design?

A: Yes. I have reviewed the Direct Testimony of Michael Scheperle on behalf of Staff, Barbara Meisenheimer on behalf of OPC, Maurice Brubaker on behalf of the Industrials, Dr. Dennis Goins representing DOE, and Michael Noack representing MGE.

Q: Please describe those testimonies.

A: The Direct Testimony filed by Staff witness Scheperle proposes to allocate the first $13 million of any Commission ordered increase to the rate schedules for the customer classes shown to have a positive percent (i.e. revenue is less than the cost of service to serve that class). Any increase granted above $13 million would be applied to all rate schedules on an equal percentage basis. Lastly, if the Commission ordered a decrease, it

would be applied as an equal percentage decrease to the rate schedules for the customer classes which have a negative percent (i.e. revenues exceed cost of service). I have included the results of Staff's CCOS which shows the percentage of return to the classes.

Ms. Meisenheimer, representing OPC, proposes a limited revenue neutral shift for the Small General Service, Medium General Service, and Large Power classes. Ms. Meisenheimer relies on the Company's CCOS as the basis for her recommendation. For any approved increase, OPC is proposing it be applied such that no classes should receive a net decrease.

Mr. Brubaker, representing the Industrials, supports a revenue neutral shift between the classes based on his CCOS study with any increase applied as an equal percentage increase to all classes with the exception of the Large General Service and Large Power Class energy tail-blocks which he suggests should not be changed.

Mr. Goins, representing DOE, supports an equal percentage increase to all classes consistent with the Company's proposal in its direct filed case.

Mr. Noack, representing MGE, does not specifically address rate design but instead focuses on recommending the elimination of the Residential heating rates and a line extension program.

Q: Can you further explain the proposal presented by Staff?

A: As mentioned earlier, Mr. Scheperle's rate design proposes to allocate the first $13 million of any Commission ordered increase to the rate schedules for the customer classes shown to have a positive percent (i.e. revenue is less than the cost of service to serve that class). Any increase granted above $13 million would be applied to all rate schedules on an equal percentage basis. Lastly, if the Commission ordered a decrease, it

would be applied as an equal percentage decrease to the rate schedules for the customer classes which have a negative percent (i.e. revenues exceed cost of service).seeks to perform a revenue neutral adjustment between the rates based on the results of his CCOS study. I have attempted to understand Mr. Scheperle's proposal and have come to the following conclusions:.

1.) There is much confusion on whether the Rate Schedules represented in the Staff CCOS are classes in Mr. Scheperle's proposal or whether the classes are Residential, Small General Service, Medium General Service, Large General Service, Large Power and Lighting. This makes a significant difference in Staff's recommendation and its outcome. Reading on Page 5 of the Staff's Rate Design and Class Cost-of-Service Report, beginning on line 11, I believe that Staff's proposal would indicate that customer classes are each rate schedule. Staff's report states on line 11, "Staff's customer classes correspond to KCPL's current rate schedules, except that all lighting rate schedules were combined into one customer class.". This is important because it describes Staff's proposed rate design implementation. It also means, for example, that the Residential class has four classes in Staff's proposed rate design. Similarly, the Small General Service, Medium General Service, Large General Service, Large Power all have four classes each for rate design purposes.

2.) The implementation of Mr. Scheperle's proposal for the sixteen classed in the Small General Service, Medium General Service, Large General Service, Large Power rate groupings will cause significant problems with

customers shifting from one rate to another in an effort to obtain the lowest and result in a substantial undetermined loss in revenues to the Company, if not addressed in the overall rate design and addressed before such a design was implemented. While normally parties would refer to Residential as a class with four (4) rate schedules, Small General Service as a class with four (4) rate schedules, etc. However, since Mr. Scheperle refers to the rate schedules as class and the Residential, Small General Service as rate groups, I will attempt to use those same terms throughout this testimony.

The following percentage distribution is the proposal from the Staff.

TABLE 1
Inpacts of Staff Rate Design Recommendation

Class/Rate	Staff Revenue Deficiency	Staff CCOS % Increase
Residential		
Regular	$13,026,349	6.79%
All Electric	$2,952,965	6.98%
Separately Metered	$2,813,915	21.27%
Time of Day	$8,871	15.72%
Small General Service		
Primary & Secondary	($9,621,959)	-22.29%
Unmetered	($105,278)	-13.27%
All Electric	($185,792)	-10.05%
Separately Metered	$86,524	11.99%
Medium General Service		
Primary	($280,808)	-27.39%
Secondary	($4,019,039)	-5.20%
All Electric	$335,748	3.45%
Separately Metered	$281,706	14.96%
Large General Service		
Primary	($3,034,768)	-20.63%
Secondary	($7,537,361)	-9.53%
All Electric	$3,567,970	6.27%
Separately Metered	$511,503	11.36%
Large Power Service		
Primary	$3,471,774	4.76%
Secondary	$2,382,626	9.62%
Substation	$2,914,744	15.02%
Transmission	($239,433)	-4.94%
Lighting		
Lighting	($359,350)	-4.32%
Total	$6,970,906	1.04%

Q: Staff's Rate Design and Class Cost-of-Service Report, page 3, outlines Staff's CCOS and Rate Design objectives in this case. Do you believe that the rate design recommendations presented by Staff support those objectives?

A: No. Particularly with regard to objective 4, which states: "Retain, to the extent possible, existing rate schedules, rate structures, and important features of the current rate design

that reduce the number of customers that switch rates looking for the lowest bill, and mitigate the potential for rate shock". Other than this objective, I believe Staff has attempted to meet all other objectives.

Q: Are there specific concerns with the rate design recommended by Staff?

A: My initial concern is with the CCOS study utilized by Staff as a basis for the rate design recommendation is flawed. I believe the guidance provided by Staff's CCOS study is incorrect and causing Staff to recommend incorrect actions as part of its rate design. As a result, Staff's proposed rate design, which follows the results of the CCOS, is flawed. The problems and issues to Staff's CCOS are addressed in the rebuttal testimony of Company witness Paul Normand.

As mentioned above, my primary concern with the Staff rate design is that it did not take into account the customer shifts that will almost assuredly result from its proposal. Staff's proposal does not explore the disruption of the relationship between the Large General Service and the Large Power rate groups, leading to the potential rate switching impact of its proposal. Staff's proposal recommends increasing the Large Power Service Primary rate class, while leaving the Large General Service Primary rate class unchanged. Similarly, Staff recommends increasing the Large Power Service Secondary rate class, while leaving the Large General Service Secondary rate class unchanged. These opposing changes will certainly upset the relationship of these rates.

Q: Will Staff's proposal cause a disruption in the Residential rate groups.

A: No. As I understand Mr. Scheperle's proposal, each residential rate will receive an equal percentage increase because each rate class in the Residential rate group is not providing a positive percent (i.e. revenue is less than the cost of service to serve that class).

Q: What normally happens when such radical changes are recommended in a rate design proposal?

A: The Company implemented a major rate redesign in the late '90s. In that rate redesign, new designs were developed with multiple parties participating. In the design work, evaluations were made to the customer shifts that would occur as a result of the design changes and adjustments were made to account for the lost revenues. The Staff and Company worked hand in hand to assure that the revenue impact on customer shifts was accounted for.

Q: Has the Company had some recent experience in which a revenue shift was made to the classes that caused a major shift in customers from one rate to another?

A: Yes, A similar situation occurred in our Kansas jurisdiction as part of Docket No. 07-KCPE-905-RTS where an adjustment was made to the Large Power Class, breaking the relationship to the adjacent Larger General Service Class. As a result of the relationship change, all but three of KCP&L's Large Power Kansas customers abandoned the rate. The rate switching that occurred resulted in a loss in revenues to the Company of over $1 million on an annual basis. The lesson learned was that changes made to only one part of the Company's rate structure are likely to jeopardize the relationship with the other unchanged rates.

Q: What would need to be done to quantify the amount of rate switching that would occur?

A: In order to address the issue, each affected customer would need to re-billed on various rate structures to determine if they would be better off on one rate versus another. This was not prepared nor presented by Staff. It is a very time consuming and difficult task to

determine the potential loss that would occur from such a change as dramatic as what Staff recommends. If the shifts are not accounted for in the rate design, the Company will be shorted in the recovery of its overall revenue requirement.

Q: Have you made an attempt to quantify the rate design as you understand it?

A: Yes. From my understanding and as I have described, the first $13 million increase will be applied on an equal percentage basis to all the Staff's classes that show a positive percentage. That means that Residential General Use, Residential All Electric, Residential TOU and Residential Separate Meter, Small General Service Separate Meter, etc, will all get the same equal percentage increase for the first $13 million. The Small General Service Primary & Secondary, Small General Service Unmetered, Small General Service All Electric, etc, will not get the first stage of the increase. Any increase above $13 million will be applied equally to all classes.

Q: What will be the percentage increase for the first $13 million?

A: It will be roughly 3%. This is based on my calculations of the revenues for all customers who have a positive percentage and as described by Staff.

Q: Do you have any other concerns with the rate design recommended by Staff?

A: Yes. The rate design proposal offered by Staff is tailored to Staff's recommended revenue increase and as mentioned previously, Staff's flawed CCOS study results. Accordingly, the rate design assigns disproportionate increases, some as high as 20%, to the All Electric and Separately Metered rates. It is my opinion that these increases would become unreasonable if a significant portion of Company's requested increase were approved.

Another concern is the overall rate design proposal only looks at annual CCOS and does not take into account the seasonal nature of costs. The Company previously agreed to do a seasonal CCOS study as a part of the stipulation and agreement in the last two cases. As a result, we have focused on much more granular detail that helps understand the overall rate design. For example, in the residential class, the summer rates for all the classes in Staff's CCOS have the same service charge and the same energy prices, yet Staff's proposal recommends the rate design be applied and a percentage basis to each rate so it will not disrupt the overall rate design. However, that is exactly what the Staff proposal does. It disrupts the rate design. This same consistency in service charges, facilities charges, summer, and winter energy prices. Staff's proposal disrupts this consistency.

Q: In prior cases, has the Staff position addressed the concerns that you bring up?

A: Yes. In Case No. ER-2006-0314, Staff witness Janice Pyatte had many of the same concerns and conclusions. The following is an excerpt from her testimony that addresses the issue on consistency and continuity among classes.

> "Q. How have the various parties addressed the question: Should Any Revenue Shifts among Non-Residential Classes be Applied Uniformly or Non-Uniformly?
>
> A. Only Staff's recommendation explicitly addresses this question in its direct testimony. We have recommended that all non-residential rate schedules be changed by a uniform percentage to preserve rate continuity. Presumably other parties will weigh in on this issue in rebuttal to Staff. I believe strongly that equating class revenues with class costs, as measured by a CCOS study, is only one of a number of objectives to be pursued when designing the rates that are to be charged actual customers. CCOS studies provide useful information about the average cost associated with the average customer. Beyond that, additional analyses need to be performed before one can design the rate values and rate structures that recover the right costs and send the proper price signals to individual customers. As I described in my direct testimony, KCP&L's current general service and large power

service rate schedules were designed over a multi-year period. My analysis shows that the relationships between the various rate schedules, which I call rate continuity, are still functioning as the designers intended. The way to maintain rate continuity between rate schedules is to apply any increase or decrease as a uniform percentage."

Q: This case occurred back in 2006. Have rates been applied uniformly to the non-residential classes since then?

A: Yes. With the exception of the Electric Space Heating rates for Small and Medium rate schedules, they have remained uniform.

Q: What is your recommendation regarding the Staff proposal?

A: I recommend the Commission reject the proposed rate design presented by Staff.

Q: Would you further explain the proposal presented by OPC?

A: Ms. Meisenheimer utilizes the Company's CCOS study results as the basis for her rate design recommendation, recommending that the Commission accept a limited revenue neutral shift for the Small General Service, Medium General Service, and Large Power classes. In this scenario, rates for the Small General Service and Medium General Service classes would be reduced and rates for the Large Power class would be increased by an amount equal to one half of the variance between the current Large Power class revenue amount and the revenue amount required to cover costs or about $4 million.

In the event the Commission approves a revenue increase greater than $4 million, OPC recommends that the Commission apply the increase such that no customer class should receive a net decrease when combining the revenue neutral shift and the total revenue increase for that class.

Q: Are there specific concerns with the rate design recommended by OPC?

A: My main concern with the OPC recommendation mirrors my primary concern offered in response to the Staff proposal. OPC's proposal does not explore the disruption of the relationship between the Large General Service class and the Large Power class, leading to the potential rate switching impact of its proposal. Rate switching risk is very real and exposes the Company a direct loss in revenues.

Q: Would you further explain the proposal presented by the Industrials?

A: Yes. Similar to the other parties, the Industrials propose an initial revenue neutral shift followed by an application of any commission approved increase. In the Industrials' rate design, its CCOS study results indicate the Residential class is not covering its cost of service while the Small, Medium, and Large General Service classes are providing more than their cost to serve. The Industrials propose moving these classes approximately 25% of the way toward their cost of service on a revenue neutral basis. Any Commission approved increase would be applied to all rate schedules, less the Large Power and Large General Service classes, on an equal percentage basis. For the Large Power and Large General Service classes the Industrials propose that no increase be applied to the last energy block. The remainder of the increase would be applied to the remaining energy blocks, the demand charges and customer charges. The result of this proposal is to increase the rates paid by low load factor customers by a greater percentage than higher load factor customers.

Q: Are there specific concerns with the rate design recommended by the Industrials?

A: My initial concern is with the CCOS study utilized as a basis for the rate design recommendation. I concur with the issues detailed by Mr. Paul Normand in his rebuttal testimony on behalf of the Company. I believe the information provided by the

Industrials' study is incorrect and leads the Industrials to recommend incorrect actions as part of their rate design.

Additionally, the Industrials' proposal isolates the tail block of the energy charge resulting in a distortion of the current overall rate design between the classes and will result in many customers shifting rates. This has not been accounted for in the Industrials' proposal and represents a very real risk for the Company.

Q: Does the rate design presented by the Industrials introduce any new concerns you would like to explain?

A: Yes. I believe that increasing the rates, as recommended by the Industrials, does not reflect the cost causation principles of rate design and the cost drivers in this case. In this case, the Company is requesting an increase of 13.78%. The two primary drivers for this increase are the capital additions associated with the addition of Iatan 2 and the Company's overall fuel cost, purchased power cost, and off-system sales margins. All drivers which are energy related. Iatan 2 is a baseload plant that essentially provides energy to KCP&L customers whenever it is available. Consequently, the cost of the facility should be recovered in a manner that reflects recovery from all energy components. Likewise, fuel cost, purchased power cost, and off-system sales margins should be included in all energy components. By increasing the rates as suggested by the Industrials, the proposed rate increase does not place the increase to the proper rate components. All energy components should be increased.

Q: Would you explain the proposal presented by DOE?

A: As mentioned earlier, DOE supports an equal percentage increase to all classes consistent with the Company's proposal in its direct filed case. However, DOE bases its recommendation on an adjusted CCOS study.

Q: Are there specific concerns with the rate design recommended by DOE?

A: Company witness Paul Normand addresses the Company's concerns with the CCOS presented by DOE.

Q: Would you further explain the proposal presented by MGE?

A: MGE did not offer a rate design proposal per se; instead, MGE requested that the Commission eliminate the Residential Space Heating rates, forcing all Residential customers to be served under the Residential – General Use rate. Additionally, MGE takes issue with our Line Extension program, recommending it be discontinued.

Q: Does MGE provide any cost justification or study for its recommended change to available Residential rates?

A: No. No study was prepared or presented that would justify the proposed changes in rate design. MGE simply cites rate under recovery identified in the Company's CCOS study as a justification. Further, MGE characterizes the under recovery as a "subsidy" within the Residential class, a situation that is completely incorrect.

Q: Why do you believe this characterization is incorrect?

A: Company witness Paul Normand provides the CCOS study and summarizes the results of the study in his Direct Testimony. The results of the CCOS study show that each class of customer recovers the cost of service to that class and provides a return on investment. Within each class in the study, the seasonal rates show the same thing. That is, the

summer and winter rates for each class provides recovery of the cost of service and a return on the investment.

Q: Please describe your concerns with MGE's recommendation.

A: MGE's proposed rate changes are focused only on Residential rates and will result in considerable increases for customers in the space heating sub-classes. Additionally, the proposed rate changes do not take into account the Company's requested revenue requirement which would add to the impact.

MGE clearly has an ulterior motive - a direct economic incentive to prevent KCP&L from providing cost-based rates for customers who use electricity to heat their homes. Increasing the electric prices for new or existing customers who utilize electricity for space heating without any cost justification will likely result in less sales of electricity and more natural gas sales for MGE.

It is also important to note that outside of MGE, a natural gas company that provides service within KCP&L's service territory, there were no builders, developers or HVAC dealers that intervened in this rate case pursing rate design changes, especially eliminating rates. One would assume that if there was a large public outcry to eliminate certain rates that there may have been more interest in this case other than those with obvious self interest, such as, the competing natural gas company.

Q: Does AmerenUE or Empire Distric Electric offer specific prices for customers who utilize electric heating?

A: Not expressly, but their rates do support electric heating. One way that electric utilities price service is often through the summer/winter price differentials. Some utilities electric to place more emphasis on much higher summer prices than winter prices to

address cost causation. Some utilities have elected to reflect more annual pricing to mitigate the price changes between summer and winter. While I am not aware of whether AmerenUE or Empire District Electric have such rates, I am aware that each have summer/winter price differentials in there rate designs.

Q: Mr. Noack makes a number of claims. Those include his position that the electric heating rats are "discounted". Do you agree?

A: No. The current residential electric heating rate recovers all short term variable costs and provides a contribution to fixed costs of the Company. As such, it is not a discounted rates. Based on the CCOS that the Company provided, it, like many other rates addressed in the CCOS, does not provide the same return as do others and if you were attempting to move to an equal percentage return for all rate classes, it may need a slightly higher percentage increase than others. Many other considerations would need to be made before you attempted to move all rate schedules to an equal return based on the results of a CCOS study.

Q: What issues do you believe are critical when contemplating a rate design proposal?

A: There are a handful of considerations I believe are critical to the Company in contemplating a rate design change. They are:

<u>Provide Revenue Stability and Risk Mitigation</u> – The Company must account for:

1) the price elasticity of any new design in its revenue requirement;
2) the risk of the revenue requirement coming from higher blocks; and
3) the effect of any rate switching that may occur in the revenue requirement.

<u>Implement Cost-Based Rates</u> – The rate design should reflect distinguishing characteristics of various customer usage profiles. This is supported by the

testimony of Company witness Paul Normand and the results of the class cost of service ("CCOS") study. The study specifically addresses the different costs between summer/winter and addresses the different costs of electric space heating customers versus general use customers. Rates should provide continuity across the range of customer classes (i.e., you should not have one rate for each customer nor should you have one rate only for all customers)

Minimize Customer Dissatisfaction –

1) Changes must be made in such a way as to minimize significant impacts to customers. This may require a gradual or multi-phase shift, if the impact on customers is considered too harsh for a single shift.
2) If rates are to be no longer offered to new customers (i.e., frozen from new customer locations), the Company should allow for some time period to elapse so that customers currently committed to and installing electric space heat equipment based on current rates can still get the rate to justify their investment.
3) If a rate is to be discontinued to all customers, the rate impact of those customers should be considered and the evaluation of the alternative rates the customer would move to should be considered in the determination of the revenue requirement of the Company.

Simplify the Rate Structure – The Company should seek to combine or reduce rates where possible.

Consider Technology Issues – The Company must be certain it has the technology in place to measure the usage and produce bills for the new rates.

Q: You have detailed your concerns with the respective rate design proposals. How should the Commission proceed?

A: As explained in this rebuttal testimony, the rate design proposals offered by the parties, while well intentioned, are incomplete and expose the Company to serious risks to revenue recovery. In some cases the proposals expose customers to excess prices increases. In short, the proposals have not been completely analyzed to the level required by such changes in rate design. The current rate design was developed about ten years ago, originating in an earlier rate case and was ultimately concluded through a structured and separate proceeding that took over a year to complete. The separate proceeding provided the parties an opportunity to focus their effort on the rate design effort. It addressed numerous areas such as rate switching, customer impacts and many other factors.

As mentioned earlier, the Company has experienced, to its detriment, the result of unintentional disruption of the relationship between the rate classes, leading to the loss of all but three of customers from the KCP&L's Large Power class in Kansas. The rate switching that occurred resulted in a loss to the Company of over $1 million on an annual basis. The Commission must be aware that changes made to only one part of the Company's rate structure are likely to jeopardize the relationship with the other unchanged rates and must be addressed.

As offered in the Direct Testimony of Company witness Paul Normand and myself, the results of the CCOS study indicate that the rate design of all customers requires some modification. Specifically, class revenue requirements should be addressed and the summer winter differentials within classes need to be addressed. This

is a very complicated and time consuming undertaking and will likely require a phased in approach over several years to mitigate large impacts to customers in any given year. I again propose that rate design be addressed in a separate case in the future. This case could run its own course and not be tied to a rate case time schedule. It would allow parties to focus on the overall rate design of the Company and address many of the issues as mentioned above. The best time to do this is in a future revenue requirement neutral case.

Q: Is this consistent with any other party in this proceeding?

A: While not addressed in this case, Staff, in Case No. ER-2006-0314 made the same recommendation consistent with our proposal in this case. Again, I refer to the testimony of Janice Pyatte in that case where she says:

> "Q. Please comment on the Company's proposal for a future rate design case.
>
> A. KCP&L witness Tim M. Rush proposes that an investigation that focuses solely on class cost-of-service and rate design issues be scheduled after the conclusion of the Regulatory Plan and the in-service date of Iatan 2, the pending baseload coal plant. Staff agrees that an analysis of class cost of service and rate design would be appropriate after the addition of Iatan 2 to rate base, which is currently scheduled to be in the 2009-2010 time-frame. A large capacity addition, such as a coal plant, will likely widen any existing CCOS imbalances between the residential class and the general service classes. Even if movements towards CCOS made in this and subsequent rate cases were to completely eliminate all disparities, there will likely be a need to re-align class revenues with class costs after such a large capacity addition. Conducting a CCOS and rate design investigation after the Commission has determined the prudently incurred costs of Iatan 2 and KCP&L's other investments seems reasonable. However, at this point in time, Staff does not have an opinion about whether such an investigation should be done in a stand-alone, rate design docket or be part of the first KCP&L rate case filing after Iatan 2 is placed into rate base."

FACILITIES EXTENSION PRACTICES

Q: Earlier you spoke of MGE recommendation toward the Line Extension program. Do you have any concerns about this recommendation?

A: Yes, I believe MGE is attempting to mischaracterize the program. The Line Extension program is a method to assign the costs for system expansion to those responsible for the cost. It is simply trying to address equity regarding construction practices for all the different types of customers we serve. MGE has very similar terms and conditions in Section 9, sheets R-58 through R-61 of its current tariffs. Under the KCP&L tariff, the Company must evaluate each non-standard line extension, or more specifically:

> "Each application to the Company for electric service (other than an overhead single-phase extension for residential or rural residential electric service) to premises requiring extension of the Company's existing distribution facilities will be studied by the Company, as received, in order that the Company may determine the amount of investment warranted by the Company in making such extension **giving full consideration to the Customer's load requirements and characteristics and the Company's estimated revenue from the Customer during the term of the Customer's service agreement** as may be required by the Company." (emphasis added)

The Line Extension terms referenced by Mr. Noack in no way establish that an "incentive" is paid for a customers installing heat pump equipment. The lot charge deposit, underground service charges, and the distribution construction cost allowance are all part of the overall cost recovery that addresses consideration of the customers load characteristics, and the estimated revenue contribution that is expected from the customers over its useful life.

I will note that nothing in the Line Extension program precludes the Developer from installing gas service to the development. In fact, it is my impression that most new

homes developed under these Line Extension terms include gas water heating and gas heating as a back-up to the electric heat pump.

Q: What are some of the benefits of the Company's Facility Extension Practice, specifically the Heat Pump Subdivision Agreement?

A: First and foremost, it gets us in front of the developer and we work with them to identify everything from number of lots, types of construction, expected timeframe for the development, expected revenues for the utility, etc. All of this helps us to formulate the construction needs of the subdivision and understand a number of issues or concerns in developing the layout.

Q: Is the developer required to sign the Heat Pump Subdivision Agreement?

A: No. In no way is the developer coerced into signing such an agreement. If the developer signs the agreement, it is our way of knowing with some certainty the expected revenue contribution that will come from the development and help us apply the Line Extension equitably.

Q: Do you consider the waived lot charges and service charges an incentive?

A: No. The Heat Pump Subdivision Agreement addresses the distribution for the development and the lot charges and service charges address the service line to the customer residence. Again, we are addressing the equity issues and the overall revenue contribution expected from the customer. The reason that these charges may be waived if there are sufficient revenues expected from the customer to support the costs.

Q: Mr. Noack makes additional claims concerning the efficiency and effectiveness of natural gas. What is your opinion concerning those claims?

A: I disagree with Mr. Noack's assertions. Company witness Gary Goble addresses MGE's accusations concerning electric effectiveness, particularly with the full-fuel cycle approach and the proposed fuel-switching program. Concerning the efficiency of electric heating, I have found that electric heat pump technologies are very efficient. Typical heat pump systems provide average efficiencies, or how well an appliance turns fuel into useful heat, between 200% and 350% while gas heating system remain at 78-97%. Additionally, customers have expressed other, qualitative advantages to heat pump-based heating. Many customers prefer the uniform heating delivered by heat pump systems as opposed to the cyclical nature of forced-air equipment as provided by a gas-fired furnace. Others prefer the perceived safety of heat pumps. Since heat pumps collect heat from the air or the ground without combustion. No combustion provides piece of mind to customers.

STREET LIGHTING

Q: Have you reviewed the Direct Testimony provided by Staff concerning street lighting?

A: Yes. I have reviewed the testimony of Mr. Scheperle and the associated Staff report.

Q: Please explain the Company's position regarding rate design in this proceeding.

A: As discussed in Staff's testimony, the Company has begun an evaluation of LED street lighting. Our pilot includes field testing and examining 44 fixtures provided by six vendors and installed in five communities within KCP&L and KCP&L-Greater Missouri Operations' service territories. The pilot examines system compatibility, technology performance, validating industry performance claims and efficacy issues. In particular, assuming the lamps perform reliably, the efficacy of the lamps will determine the total

energy savings possible. I would highlight the importance of our municipal customers' input during the LED pilot and their anticipated help in crafting any future LED tariff. Also, I would underscore that LED streetlights look to have energy efficiency advantages, but such advantages may not be borne out by the study.

Q: In light of the timing and uncertain outcome of the pilots, what is your view of filing an LED tariff are recommended by Staff?

A: Staff's recommendation that the Company complete the evaluation and file a LED street lighting tariff within twelve months of the *Report and Order* in this case is premature and unnecessary. The recommendation is premature in that this limited pilot is scheduled to be completed in spring 2012. At this time we do not know if the scope of this limited pilot will successfully provide enough information for the company to proceed with a LED option. It is very likely that a more extensive pilot may be needed to analyze the full economics of the new technology and provide comfort and confidence to municipal customers that the new technology will work as advertised—so to speak.

The Company is strongly committed to working with our municipal customers to incorporate and add energy efficient and cost-effective lighting solutions to our streetlight offerings. Additionally, LED lighting potentially is a solution to concerns regarding light trespass. With that in mind, I believe the recommendation to require a LED tariff filing is unnecessary at this time. After the LED pilots and evaluations are completed, our municipal customers have had opportunity to provide input, and LED lighting is shown to reduce streetlight energy consumption and proven to be cost-effective, then it would seem reasonable and in the best interest of the company and stakeholders to begin the process to amend the Company's tariffs to incorporate LED streetlight options.

Q: Mr. Herdegen addresses LED street lighting in his cost of service rebuttal testimony. Are you familiar with his testimony?

A: Yes. He speaks to the Company's plans to include LED street lighting in the Company's tariffs and also offers his concerns of adopting new technology in the absence of a statewide view and policy regarding, not only LED lighting, but its related issues, lower watt lamps, and addressing issues of light trespass and "dark sky" initiatives. Mr. Herdegen provides insight to current customers' preferences regarding street lighting and addresses the process for LED lighting to be incorporated into the tariffs. He wants to ensure the process includes legislative action to establish a statewide policy and rulemaking to allow other stakeholders, such as environmentalist, law enforcement, insurance companies, municipal and cooperative electric providers, dark sky proponents, customers, and others, have opportunity to offer their view and help craft statewide rules concerning LED and other lighting options. In anticipation of that process, KCP&L has embarked on LED pilot projects to collect data.

OTHER TARIFF CHANGES

Q: Have you reviewed the Direct Testimony provided by Staff concerning the Company's other proposed tariff changes?

A: Yes. I have reviewed the testimony of Mr. Scheperle and the associated Staff report. Staff combines all its recommendations into section V of its report, speaking to the various rate and rule changes including but not limited to the removal of the SGS – Primary All-Electric rate, addition of a Residential-Other Use tariff, removal of the Incremental Energy Rider, removal of the Mercury Vapor street lighting category, and the change to the collection charge.

Q: Please explain the Company's position regarding Staff's recommendation.

A: The Company supports the recommendations offered by Staff. However, I would like to mention one omission. On page 10, line 21 of my Direct Testimony, I propose a change the precision of the energy component used in our rate tariffs, particularly the Residential, Medium General Service, and Large General Service classes, to display five decimal places instead of the current four. We currently have a mix of precisions that I believe were inadvertently introduced into our tariffs over the course of the preceding rate cases. This change will make the precision of the energy charges in all rates consistent. Staff did not offer any recommendation concerning this proposal.

Q: Does this conclude your testimony?

A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Kansas City Power & Light Company to Modify Its Tariffs to Continue the Implementation of Its Regulatory Plan	)))	Docket No. ER-2010-0355

AFFIDAVIT OF TIM M. RUSH

STATE OF MISSOURI)
) **ss**
COUNTY OF JACKSON)

Tim M. Rush, being first duly sworn on his oath, states:

1. My name is Tim M. Rush. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Director, Regulatory Affairs.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of Kansas City Power & Light Company consisting of twenty-five (25) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

Tim M. Rush

Subscribed and sworn before me this 10th day of December, 2010.

Nicole A. Wehry
Notary Public

My commission expires: Feb. 4, 2011

" NOTARY SEAL "
Nicole A. Wehry, Notary Public
Jackson County, State of Missouri
My Commission Expires 2/4/2011
Commission Number 07391200