COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF LOUISVILLE	)	
GAS AND ELECTRIC COMPANY FOR AN	)	Case No.
ADJUSTMENT OF ITS ELECTRIC AND GAS	)	2016-00371
RATES AND FOR CERTIFICATES OF PUBLIC	)	
CONVENIENCE AND NECESSITY	)	

DIRECT TESTIMONY

OF

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Submitted on

Behalf of

The Kentucky Cable Telecommunications Association

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I. INTRODUCTION AND QUALIFICATIONS.

Q: Please state your name, business address, and occupation?

A: My name is Joseph H. Crone III. My business address is 11325 Reed Hartman Highway, Cincinnati, Ohio. I am the Senior Director of Regional Construction for Charter Communications, Inc. ("Charter"), in the Southern Ohio Region, which includes Kentucky.

Q: Please summarize your educational and professional background?

A: I have been employed in various construction and management positions in the cable industry since 1981. Since 1996, my primary responsibilities have included the design and construction of cable facilities and addressing related permitting issues. To carry out these responsibilities, I regularly interface with construction and technical personnel, utility pole owners, local government agencies, and contractor and vendor representatives. I have been Senior Director of Construction – first for Time Warner Cable, Inc., and now for Charter – since 2013. As Senior Director of Construction, I oversee all construction projects in my region and ensure all projects meet or exceed Charter's construction specifications, requirements of the National Electrical Code ("NEC"), National Electric Safety Code ("NESC"), and Occupational Safety and Health Administration ("OSHA"), and state, county, city, and/or agency rules and requirements.

Q: Have you previously testified before this Commission?

A: No.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of the Kentucky Cable Telecommunications Association ("KCTA"). Charter is a member of KCTA. Charter's experience with attachments to Kentucky Utilities ("KU") and Louisville Gas & Electric Company ("LG&E" or "the Company") structures is similar to that of KCTA's other cable operator and communications provider members. All KCTA members share the same interests in reasonable, non-discriminatory, timely, and cost-effective access to KU and LG&E structures for deploying communications network facilities.

Q: Why are you submitting testimony in this proceeding?

A: I am submitting testimony in this proceeding to address a number of LG&E's proposed tariff requirements that impact Attachment Customers like Charter and other members of KCTA. In critical respects, the Company's proposed tariff requirements are unjust and unreasonable and will undermine the ability of Attachment Customers like Charter and other KCTA members to efficiently and cost-effectively deploy communications facilities in reliance on reasonable and non-discriminatory access to the Company's essential pole facilities.

Q: Please summarize your testimony?

A: A number of LG&E's proposed tariff requirements are unjust, unreasonable, impractical, and discriminatory. In effect, these proposed requirements threaten to delay and deter deployment of communications facilities on the Company's structures by providers like Charter:

- **<u>Attachment Application And Permit Requirements.</u>** The proposed tariff unreasonably requires Attachment Customers to meet burdensome and unnecessary obligations to permit their attachments. Pole loading studies and restrictions on service drops increase construction costs and prevent the timely and efficient deployment of communications services while providing no measurable safety or reliability benefits to either LG&E, its ratepayers, or

Attachment Customers. The proposed tariff's requirements are also discriminatory and put Attachment Customers at a competitive disadvantage vis-à-vis joint users and wireless attachers. At the same time, the proposed tariff purports to vest LG&E with inappropriate discretion unreasonably to deny access to essential facilities and impose inappropriate and unsupported costs on Attachment Customers.

- **Overlashing.** The ability to timely and efficiently overlash existing facilities is vital to Attachment Customers like Charter to rapidly and cost-effectively deploy advanced communications services and additional network capacity. But the proposed tariff's onerous requirements unnecessarily and unreasonably restrict overlashing. These requirements will add cost and delay to the deployment of communications infrastructure.
- **Construction And Maintenance Requirements.** The proposed tariff's construction and installation specifications are unreasonably vague and ripe for abuse. The requirement that Attachment Customers tag all attachments within 180 days of the proposed tariff's implementation places an unreasonable and undue burden on Attachment Customers.
- **Out Of Specification And Unauthorized Attachments.** The proposed tariff sets forth unreasonable processes for determining non-compliant conditions and unauthorized attachments, which, among other things, fail provide notice of clear procedures used to identify out of specification and unauthorized attachments as well as the responsible party and fail to include any mechanisms for challenging utility determinations and resolving disputes before penalties apply.
- **Wireless Facility Attachments.** The proposed tariff includes unreasonable and impractical conditions for installation of strand-mounted small cell wireless devices by Attachment Customers like Charter. LG&E also has not provided support for its proposed wireless facilities charge.
- **AMS/DA Systems.** LG&E's deployment of its proposed AMS/DA systems, which will include installation of a large volume of equipment and facilities on structures across its footprint, threatens unreasonably to disrupt and impose costs on Attachment Customers like Charter and other KCTA members. The Commission must ensure that LG&E cannot impose costs on Attachment Customers in connection with the deployment of AMS/DA that are properly borne by LG&E and its electric ratepayers who stand to benefit from the systems.

II. THE PROPOSED TARIFF CONTAINS UNJUST AND UNREASONABLE ATTACHMENT APPLICATION AND PERMIT REQUIREMENTS.

A. Pole Load Bearing Studies Should Not Be A Required Component Of Every Attachment Application.

Q: Does the proposed tariff include processes for an Attachment Customer to follow in order to attach to utility structures?

A: Yes. Under the proposed tariff, an Attachment Customer must apply for permission to make any attachment to LG&E's structures. The Attachment Customer's applications must include: the number and location of all structures to which the Attachment Customer seeks the right to attach and the amount of space it requires, the physical attributes of all proposed attachments, a load bearing study for each attachment, the proposed start date for installation of attachments, any issues known to the Attachment Customer regarding space, engineering, access, or other matters that require resolution before installation, and proposed make-ready drawings. *See* PSA Rate Schedule, Term & Condition 7(a). Attachment Customers are responsible for all costs associated with the application, any make-ready survey conducted, engineering analyses, and the Company's review of the application. *See id.*, Term & Condition 7(b). If a make-ready survey is warranted, upon its completion, LG&E will notify the Attachment Customer in writing whether its application has been granted as well as any necessary changes to the construction proposal and/or conditions imposed on the installation or use of attachments. *See id.*, Term & Condition 7(c).

Q: Are the application requirements set forth in the proposed tariff reasonable?

A: No. It is standard for a cable operator to submit a permit application identifying the structures to which it intends to attach its communications facilities, the nature of its attachments, as well as any make-ready necessary to accommodate its attachment.

But the proposed requirement for an Attachment Customer to undertake a pole load bearing study for every structure to which it seeks permission to attach is unreasonable. As an initial matter, pole load bearing studies, which Attachment Customers must retain outside engineering experts to perform, are costly and time consuming. On average, pole load bearing studies increase attachment application costs upward of $650 per pole. In addition to monetary costs, it takes additional time and effort to prepare and submit load bearing studies with an application. As such, pole load bearing studies slow an Attachment Customer's time to market and make deployment of communications facilities much more expensive.

Significantly, moreover, this added time and expense associated with pole loading studies is generally unnecessary. Communications wires and associated equipment generally do not have any material impact on pole loading. Importantly, modern communications facilities, such as fiber optic and coaxial cable, are lightweight. They are far lighter than the older copper wires historically used by incumbent telecommunications providers. Additionally, communications wires and facilities are located lower on a pole than the much larger and heavier equipment installed by the utility itself and therefore impose inherently less tension on the pole than the electric facilities. Indeed, in my experience, it is rare for a load bearing study to show that the addition of a

communications wire overloads a structure that was not already overloaded as a result of the Company's larger and heavier facilities located higher on the structure.

For all of these reasons, it is not reasonable or appropriate for an Attachment Customer to perform a pole load bearing analysis for every proposed attachment to a utility structure.

Q: When are load bearing studies appropriate in connection with communications attachments to utility structures?

A: In the context of communications attachments, pole load bearing analysis is generally only appropriate where the pole owner has reason to know or suspects that a structure is already overloaded as a result of electric facilities installed on the structure. This approach is reasonable and appropriate because the utility is required to maintain information on the loading of its poles. Under this approach, the Attachment Customer identifies the structure to which it desires to make attachment, and the pole owner, based on its knowledge of the age and facilities already existing on its structure, can determine whether a load bearing study should be performed. Given it is rare for a communications attachment actually to overload a pole, this approach is sensible and minimizes the costs and delays associated with communications attachments.

This approach is also more consistent with the standard practice in which a pole owner requests a pole loading study to be performed based on its assessment that a given structure is at or near capacity.

Q: Is the proposed tariff's requirement for an Attachment Customer to conduct a load bearing study for every structure consistent with LG&E's treatment of other communications attachers?

A: No. The Company's agreements with joint users do not require them to perform load bearing studies prior to and as a condition of attachment. *See* Response to KCTA's First Request for Information No. 1-1(b). The fact that these attachers do not need to conduct pole loading as a mandatory part of the permit process demonstrates that pole loading is not necessary for communications attachments. As such, this difference in treatment between joint users and Attachment Customers further indicates that it is not reasonable for LG&E to require Attachment Customers to perform pole loading for every structure as part of every permit application.

Q: What load bearing study requirements does the Company impose on wireless attachers as part of the attachment application process?

A: Similarly to joint user attachers, wireless attachers are also not obligated to conduct pole load bearing studies as a mandatory part of the permit application process. *See* Response to AT&T's Initial Data Requests for Information No. 3. Instead, under LG&E's agreements with wireless attachers, the Company ***may*** conduct a load bearing analysis in connection with any proposed attachment at its option based on a post-installation inspection. While the attachment applicant must pay the costs associated with any pole load bearing study undertaken by the Company, the wireless attacher is not required to conduct a load bearing study upfront as part of its attachment permit application.

Q: What is the effect of LG&E treating Attachment Customers differently from joint users and wireless attachers?

A: The Company's disparate treatment of otherwise similarly situated communications attachers, with whom Charter and other KCTA members must compete, is unreasonable and discriminatory. Under the proposed tariff, Attachment Customers must bear the cost, burden, and time of complying with a load bearing study obligation that LG&E does not impose on other, similarly situated attachers providing communications services. Requiring Attachment Customers alone to comply with unique, burdensome, time consuming, and expensive procedures to make attachments to the Company's structures places them at a competitive disadvantage vis-à-vis their joint user and wireless competitors in constructing their networks and serving customers. In effect, LG&E's proposal would operate to distort the market for communications services.

B. LG&E Must Provide Detailed Support Justifying All Charges Imposed Under The Proposed Tariff.

Q: Are there charges imposed on Attachment Customers seeking to attach to LG&E's structures?

A: Yes. The proposed tariff requires Attachment Customers to pay for make-ready surveys, engineering analyses, and LG&E's review of the application as well as the costs incurred by LG&E and any third parties to rearrange their facilities to accommodate a new attachment, costs related to the replacement of an existing structure, if such replacement is necessary to accommodate the new attachment, and inspection of the attachment. *See* PSA Rate Schedule, Term & Condition

7(b), (d-e). The Attachment Customer must pay these costs within 30 days upon receipt of an invoice. *See id*. Despite the range of charges an Attachment Customer may incur, however, LG&E's proposed tariff does not require it to provide any documentation to support its charges or provide any process for an Attachment Customer to dispute improper charges.

Q: Are there other costs Attachment Customers may have to incur in connection with their installation of attachments?

A: Yes. In addition to these costs identified above, the proposed tariff requires Attachment Customers to bear the cost of LG&E's decision to conduct monitoring of the construction and installation of attachments. *See* PSA Rate Schedule, Term & Condition 8(g). Like the work LG&E may perform in connection with the application process, if LG&E exercises this option, the Attachment Customer must pay the costs of any monitoring within 30 days upon receipt of an invoice, and there is no documentation or inquiry procedure. *See id*.

Q. Are these costs reasonable?

A: No. Assuming an installation is made in specification, LG&E should bear its own costs of monitoring its distribution facilities.

Q: Does a pole owner typically provide any documentation supporting pole attachment-related charges?

A: Yes. Pole owners generally provide detailed documentation supporting the charges imposed to show they are reasonable and cost-based.

Q: Is it appropriate for LG&E to provide an Attachment Customer with documentation underlying the charges that it imposes?

A: Yes. It is vitally important because supporting documentation enables the Attachment Customer to review and assess the reasonableness and accuracy of the charges. Supporting documentation also ensures that LG&E charges Attachment Customers only the actual costs to perform the work required to accommodate their attachments.

C. The Proposed Tariff Includes A Vague And Inappropriate Standard For Denying Access That Is Subject To Abuse.

Q: Does the proposed tariff allow LG&E to deny an attachment application?

A: Yes. The proposed tariff allows LG&E to deny an Attachment Customer access to its structures based upon lack of capacity, safety, reliability, engineering standards, or any "other good reason." *See* PSA Rate Schedule, Term & Condition 7(c).

Q: Are these bases for denying applications reasonable?

A: No, not entirely. It is generally understood that a utility may deny access based on lack of capacity, safety, reliability, and general engineering considerations. But it is not reasonable or appropriate for LG&E to reserve a vague and unilateral right to deny a communications attachment based on so-called "other good reasons." Aside from lack of capacity, safety, reliability, and general engineering considerations, there should not be "other good reasons" for denying a communications provider like Charter and KCTA's other members access to essential utility structures. If there are, such reasons should be identified expressly by LG&E in the tariff. The proposed "good reason" standard is too vague and ambiguous to provide Attachment Customers notice of the reasons for which their proposed attachments may be denied or to constrain LG&E's

permitting decisions. While a utility may deny access based on a bona fide development plan reserving pole space for future utility purposes, LG&E's proposed good reason standard is unduly vague and subject to potential abuse.[1] This tariff language should be stricken.

Q: Do you have any concerns if LG&E is allowed to deny Attachment Customers like Charter access to its essential pole structures for any "other good reasons"?

A: Yes. My concern is that LG&E may invoke this vague standard to deny an Attachment Customer's permit applications unreasonably and for inappropriate reasons. This concern is heightened by the fact that Attachment Customers do not have practical, cost-effective alternatives to placing their equipment and facilities on existing utility structures like those maintained by LG&E, which are essential facilities for cable operators, and an "other good reason" standard threatens to deny Attachment Customers reasonable access to LG&E's essential structures. Access to pole structures on reasonable terms is vital to cable operators like Charter given the lack of available practical, cost-effective alternatives to building communications networks and facilities in reliance on LG&E's existing utility structures. As noted above, LG&E should be required to articulate expressly any basis on which it may reasonably deny access to its structures. Given the tariff already grants LG&E the right to deny attachment for all appropriate reasons, the proposed good reason standard resonates as unnecessary and subject to abuse.

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[1] *See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report & Order, 11 FCC Rcd. 15499, 16078 (1996) (allowing a utility to reserve pole space only "if it is

Q: Does LG&E's proposed "other good reason" standard for denying access to structures cause you any additional concerns?

A: Yes. LG&E's vague "other good reason" standard is particularly troubling in light of LG&E's plan to deploy Distribution Automation ("DA") and an Automated Metering System ("AMS") networks on its structures. There is a real concern that LG&E can at-will invoke this vague standard unreasonably and inappropriately to deny communications attachers access to essential structures in order to advance the deployment of its own communications' facilities in the communications space traditionally reserved for cable operators like Charter. It would be equally inappropriate for LG&E to invoke this standard to require third party Attachment Customers to pay to "create" additional space to accommodate the utility's DA/AMS facilities. Deployment of advanced communications services will be delayed and deterred if LG&E can deny pole access to Charter and other Attachment Customers, or require them to create space, based on the "good reason" that it needs pole space for its own communications system.

D. The Proposed Tariff Imposes Unreasonable Restrictions On Service Drop Attachments.

Q: What is a service drop attachment?

A: A service drop attachment is defined under the proposed tariff as a cable attached to a structure with a J-hook or other similar hardware that connects the trunk line to an Attachment Customer's premises. *See* PSA Rate Schedule, Definitions. As the name suggests, a service drop interconnects a new customer's premises with

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consistent with a bona fide development plan that reasonably and specifically projects a need for that space in the provision of its core utility service").

the communications provider's network, enabling the communications provider to serve the customer. A communications provider generally does not know in advance of a service request whether a service drop will be required to connect a customer to the network. Because such attachments are based on requests for service, time is of the essence in making such attachments.

Q: Does the proposed tariff set out requirements related to service drop attachments?

A: Yes. The proposed tariff allows an Attachment Customer to install a service drop attachment without written application only if the service drop is made within six inches of an existing attachment, the service drop attachment conforms to all applicable rules and regulations, and the Attachment Customer provides written notice to LG&E of the installation of a service drop within one month after installation of the attachment. *See* PSA Rate Schedule, Term & Condition 7(i). If the service drop is attached on a structure without an existing attachment or is not installed within six inches of an existing attachment, the service drop constitutes a new attachment for the purposes of billing and permitting, and the Attachment Customer must comply with the proposed tariff's application processes for new attachments. *See id.*

Q: Are the proposed tariff's requirements related to drop attachments reasonable?

A: No, they are unreasonable and impractical for multiple reasons. As an initial matter, LG&E conducted no reports, analyses, or studies concerning the impact of

drop attachments on pole loading. *See* Response to KCTA's First Requests for Information No. 1-15. As such, LG&E's proposal is arbitrary and unnecessary.

Moreover, service drop attachments are generally not located on the same structure as an Attachment Customer's mainline communications attachments. As a result, the tariff essentially treats drop attachments as new attachments subject to LG&E's full-blown permit process. This is inappropriate because drop attachments do not raise any of the same construction, engineering, and/or safety considerations as mainline communications attachments. Pole owners never treat drop attachments as subject to full-blown permitting.

Additionally, a requirement to permit drop attachments fundamentally interferes with an Attachment Customer's ability timely to deploy services to customers. Service delays caused by an inability to make drop attachments undermine a communications provider's ability to meet customer needs. For all of the above reasons, Charter does not seek to permit drop attachments.

Monthly reporting of new services drops is also not a practical or reasonable way to account for new drop attachments given that drop attachments are typically installed by service personnel rather than construction personnel who are responsible for the attachment permit process. Accordingly, a more practical and reasonable approach is for the Attachment Customer to make a good faith estimate on a monthly or quarterly basis and supplement the estimates semi-annually with written notice.

III. THE PROPOSED TARIFF CONTAINS UNJUST AND UNREASONABLE OVERLASHING REQUIREMENTS AND RESTRICTIONS.

Q: Are you familiar with the process of overlashing?

A: Yes.

Q: What is the process of overlashing?

A: Overlashing is the process of affixing additional fiber optic or coaxial cable onto the steel strand supporting a pre-existing mainline communications wire attachment. Overlashed fiber optic and coaxial wires are lightweight and about a half inch in diameter. The process of overlashing is a vital one for cable operators like Charter because it enables them quickly, efficiently, and cost-effectively to deploy advanced communications services and additional network capacity relying on an existing and previously-permitted mainline attachment.

Q: Does the proposed tariff contain requirements related to overlashing?

A: Yes. Under the proposed tariff, an overlashed wire is not considered a separate attachment subject to attachment charges and application requirements if: (1) a pole load analysis was conducted for the overlash; (2) overlashing is completed within 120 days of the initial attachment; (3) no make-ready work is required; (4) the Attachment Customer obtained a permit for overlashing; and (5) the Attachment Customer provides written notice of the overlash to LG&E within 30 days of construction. *See* PSA Rate Schedule, Term & Condition 10. The cable bundle may not exceed two inches in diameter under any circumstance as well. If the overlash attachment fails to meet any of these criteria, the overlash constitutes a new attachment subject to the full-blown permit process, except that no additional attachment charge applies to overlashed fiber. *See id*.

Q: Is the proposed tariff's approach to overlashing reasonable?

A: No, it is unreasonable and impractical for a number of reasons. Because overlashing is used as an efficient and cost-effective way to expand capacity of an existing attachment, overlashing generally does not occur within 120 days of the initial attachment. When an Attachment Customer installs an initial attachment, it does so with its existing and anticipated future capacity needs in mind. So it makes little sense for the Attachment Customer to install an attachment knowing that the capacity will be insufficient in a few short months. Consequently, Attachment Customers use overlashing quickly and efficiently to expand capacity of a previously installed attachment. In effect, then, the 120 day limit means that overlashing will virtually always be subject to LG&E's full-blown permit process – which undermines the important benefits of overlashing. In any case, the 120 day period to complete overlashing without a separate permit is arbitrary, unreasonable, and serves no engineering or safety purpose.

Additionally, it is unreasonable to require a load bearing analysis for overlashing. Overlashing of a lightweight fiber optic or coaxial cable onto an existing strand does not materially impact pole loading. In my experience, overlashing is typically not found to overload a pole that is not already at or near capacity. In such a situation, the pole owner should have already replaced the pole at its own expense. Furthermore, given that LG&E is required to maintain pole loading information for its structures, it only undertakes further analyses on individual poles as necessary, and it has no reports, analysis, or studies demonstrating a need for pole loading studies in every instance of overlashing. *See* Response to KCTA's First Request for Information No. 1-14. While this makes sense, it does not rationalize the proposed tariff's requirement that Attachment Customers

adhere to costly and time-consuming practices that LG&E does not itself observe. LG&E has put forward no basis for this unreasonable requirement. It needs to be removed from the tariff.

LG&E's proposed restrictions on overlashing will add cost and delay, and in effect slow and deter deployment of, communications infrastructure by Attachment Customers like Charter.

IV. THE PROPOSED TARIFF CONTAINS UNJUST AND UNREASONABLE CONSTRUCTION AND MAINTENANCE SPECIFICATIONS AND REQUIREMENTS.

Q: Are you familiar with the general specifications of LG&E's structures and the attachments that Attachment Customers make on them.

A: Yes.

Q: Will you please describe them?

A: Generally speaking, LG&E's structures to which Charter attaches are 40 foot wood poles that meet Class 4 specifications. Charter attaches its communications wires within an allocated one-foot communications space at about 21 feet above street level, or "grade."

Q: Does the proposed tariff specify how Attachment Customers are to construct and install their attachments?

A: Yes. The proposed tariff requires Attachment Customers to install attachments in a manner "reasonably satisfactory" to LG&E and so as not to interfere with LG&E's "present or future use" of the structures. *See* PSA Rate Schedule, Term & Condition 8(b).

Q: Do you have concerns about this standard?

A: Yes. LG&E's standards, in critical respects, are vague and unreasonable. While, as discussed above, LG&E may request an Attachment Customer to remove or rearrange its attachments based on a bona fide development plan, it is unreasonable and inappropriate for LG&E simply to reserve or reclaim space based on its own potential "present or future use" for the structures. In effect, this reservation seems a means for LG&E improperly to impose on Attachment Customers costs properly borne by it and its electric rate payers. That requirement is indeed particularly troubling in light of LG&E's plan to reclaim communications space to deploy its own communications facilities.

Q: Does the tariff require Attachment Customers to identify their facilities?

A: Yes. An Attachment Customer must identify its facilities with a tag denoting that the equipment and facilities belong to it.

Q: Does the proposed tariff address existing attachments that are not tagged?

A: Yes. The proposed tariff requires Attachment Customers to tag any attachments existing at the time the tariff goes into effect within 180 days. *See* PSA Rate Schedule, Term & Condition 8(c).

Q: Is this tagging requirement reasonable?

A: No. While it is reasonable for an Attachment Customer to tag new attachments when they are installed, it is not reasonable for the Attachment Customer to tag all of its pre-existing facilities within 180 days of the tariff's effective date. That requirement is unduly burdensome, time consuming, expensive, and unnecessary. A more reasonable approach is for an Attachment Customer to tag untagged

existing attachments as it conducts system upgrades or routine maintenance work, or in response to a specific utility request.

Q: Do you know whether the same tagging requirements are imposed on joint users?

A: Yes. They are not. *See* Response to KCTA's First Request for Information No. 1-1(b). LG&E does not require joint users to tag their attachments within any set timeframe. The fact that LG&E does not require joint users to tag facilities within any given timeframe underscores the unreasonableness of proposed tariff's requirement for Attachment Customer to tag all attachments within 180 days. This disparate treatment is another way in which the tariff puts Attachment Customers at a competitive disadvantage vis-à-vis joint users competitors.

V. THE PROPOSED TARIFF CONTAINS UNJUST AND UNREASONABLE PROVISIONS GOVERNING ATTACHMENTS THAT ARE OUT OF SPECIFICATION AND "UNAUTHORIZED."

Q: Does the proposed tariff address attachments that are out of specification?

A: Yes. Under the proposed tariff, LG&E is to provide an Attachment Customer written notice of a non-compliant attachment, and the Attachment Customer must then make any necessary adjustments within 30 days of receipt of the notice. *See* PSA Rate Schedule, Term & Condition 8(j). If the Attachment Customer fails to make required adjustments within 30 days, LG&E may make the repairs or adjustments, and the Attachment Customer is responsible for reimbursing LG&E its costs plus a 50 percent surcharge. S*ee id.*

Q: Does the tariff establish how LG&E will determine if an attachment is out of specification and/or the cause of the condition?

A: No. The tariff does not set forth any process or guidance for how LG&E is to determine whether an attachment is out of specification or how the condition was caused.

Q. Does this cause you any concerns?

A. Yes. There are generally a number of attaching parties with facilities located on any given structure, including LG&E itself, and it often can be difficult to determine the cause of an out of specification condition. Indeed, if a communications attachment is installed in specification, it generally does not later fall into non-compliance through any action of the communications attacher. Instead, the condition is usually caused by another attacher. For example, clearance issues are often caused as a result of another attachment installation or LG&E "building down" on the existing communications attachments. In light of these considerations, the Company must have a process properly to identify the cause of any out of specification condition and require the appropriate party to bear the costs and responsibility to correct the situation. The proposed tariff includes the Company reserves to address non-compliant attachments.

Q: Does the proposed tariff address attachments that have not been properly permitted?

A: Yes. The tariff requires an Attachment Customer to pay a penalty equal to double the then-current attachment charge for any "unauthorized attachment." *See* PSA Rate Schedule, Term & Condition 18. Additionally, the Attachment Customer must submit an attachment application and make any required payments within 30 days of the discovery of the "unauthorized attachment." If the Attachment

Customer fails to do so, LG&E may remove the unauthorized attachments at the Attachment Customer's expense. *See id*.

Q: Does the tariff set forth a process to identify "unauthorized attachments"?

A: Yes. Upon 30 days' prior notice to Attachment Customer, LG&E may conduct a field inspection to verify the number, location, and type of attachments on its structures. *See* PSA Rate Schedule, Term & Condition 13. To conduct these inspections, the Company intends to engage employees or contractors visually to inspect attachments. *See* Response to KCTA's First Requests for Information No. 1-20. If LG&E identifies more attachments than shown in its records for the Attachment Customer, it will deem the overage "unauthorized." *See* PSA Rate Schedule, Term & Condition 13. In addition to spot and periodic inspections, the Company also intends to rely on voluntary reporting of unauthorized attachments by Attachment Customer. *See* Response to KCTA's First Requests for Information No. 1-21.

Q: Is this process reasonable?

A: No. LG& E's proposed process is not geared actually to identify attachments for which there is no underlying permit but instead to identify any mismatch between the number of "attachments" counted in the field and the number of attachments reflected in its books and records for any given Attachment Customer. In my experience, the reality is that the numbers of unauthorized attachments utilities claim to "discover" during inspections are misleading and overblown. The identification of "unauthorized attachments" typically results from inaccurate and faulty audits, including, among other things, novel methods to count attachments,

that are not designed to determine whether any given attachment has actually been installed without a permit – which of course makes it exceedingly difficult for an Attachment Customer to verify or contest the utility's claimed number of unauthorized attachments.

There is a real concern that the audits authorized here will lead to such problems because the process the Company apparently intends to use is unreasonably vague, leaves far too much leeway for potential abuse, and fails to provide Attachment Customers sufficient information about supposed "unauthorized" attachments so they can be verify and challenged as necessary. In conducting any inspections to identify unauthorized attachments, an appropriate inspection process needs to set forth criteria by which LG&E's employees or consultants are to conduct the inspection and provide information about specific attachments claimed to be "unauthorized." Attachment customers must understand LG&E's processes for identifying and confirming unauthorized attachments and be provided sufficient information to verify LG&E's findings. Additionally, Attachment Customers also must have a mechanism to challenge LG&E's designation of "unauthorized" attachments. Without any dispute resolution process, Attachment Customers have no way to contest LG&E's claimed findings of unauthorized attachments and associated penalties.

VI. THE PROPOSED TARIFF CONTAINS ADDITIONAL UNJUST AND UNREASONABLE TERMS.

Q: Does the tariff address an Attachment Customer's failure to pay charges imposed by LG&E?

A: Yes. If an Attachment Customer's bill is not paid in full within 60 days, LG&E can assess a 3 percent late fee. If the bill is not paid in full within six months, LG&E can remove an Attachment Customer's attachments or take any other action authorized by law.

Q: Does the proposed tariff contain any mechanism to address and/or resolve good faith billing disputes?

A: No.

Q. Is this reasonable?

A: No. It is not reasonable for LG&E to have a right to remove attachments for lack of payment where there is no process to address good faith billing disputes. Absent a mechanism to resolve good faith disputes over charges imposed by LG&E, an Attachment Customer faces a Hobson's choice – either pay a disputed bill or have its network and its ability to serve customers disrupted or destroyed. It is neither fair nor reasonable for LG&E to put an Attachment Customer to such a choice.

Q: Does the proposed tariff address an Attachment Customer's transfer of rights?

A: Yes, the proposed tariff provides that the Attachment Customer's rights are non-delegable, non-transferable, and non-assignable, except with the prior written consent of LG&E. *See* PSA Rate Schedule, Term & Condition 4.

Q: Is this provision reasonable?

A: No. An Attachment Customer should be permitted to undertake an internal restructuring or reorganization without obtaining LG&E's consent.

Q: Does the proposed tariff require Attachment Customers to indemnify LG&E?

A: Yes. *See* PSA Rate Schedule, Term & Condition 17.

Q: Does an Attachment Customer have the right to defend against claims that it could be required to indemnify under the proposed tariff?

A: No. *See id.*

Q: Is an indemnification provision that does not afford an Attachment Customer the right to defend against the indemnifiable claim reasonable?

A: No. If an Attachment Customer is obligated to indemnify LG&E, it should also have the right to select counsel to defend the claim and control the defense. This approach ensures a proper alignment of interests and incentives in handling and disposing of the claim.

VII. THE PROPOSED TARIFF CONTAINS UNJUST AND UNREASONABLE REQUIREMENTS FOR WIRELESS FACILITY ATTACHMENTS.

A. The Proposed Tariff Contains Unreasonable Restrictions On Strand-Mounted Wireless Facilities

Q: Do cable operators like Charter make wireless facility attachments to LG&E's structures?

A: Based on the language of the proposed tariff, yes.

Q. What kind of wireless facilities do cable operators like Charter attach to LG&E's structures?

A: Charter deploys small wireless devices, principally Wi-Fi access points, across its cable network facilities. Charter installs strand-mounted wireless devices directly

on its strand, typically near the pole itself (within 3 to 4 feet of the pole), and they reside entirely within the one foot of attachment space allocated to Charter. The devices are generally small – about 16 inches long and nine inches high and wide – and lightweight, weighing in at about 13 pounds. In no event do they weigh more than 25 pounds or exceed 11 inches high, 24 inches long, and 15 inches wide. Charter's strand-mounted wireless devices are low power devices with radiofrequency emissions similar to household Wi-Fi routers. These devices extend the communications services Charter provides to its subscribers over its cable system.

Q: Is the proposed tariff's treatment of strand-mounted small cell devices reasonable?

A: No. The tariff proposes to subject wireless facility attachments, including strand-mounted small wireless Wi-Fi devices, to LG&E's standard application and permit process. *See* Response to KCTA's First Requests for Information No. 1-8. As discussed earlier in my testimony, the application and permit process requires, among other things, Attachment Customers to undertake pole load bearing studies in connection with each application and to pay LG&E's cost of reviewing the application, conducting any make-ready survey, and engaging in any necessary construction or inspection. *See* PSA Rate Schedule, Terms and Conditions 9.b.

These onerous requirements for strand-mounted wireless attachments are not reasonable for a number of reasons. Cable wireless devices are similar to other strand-mounted cable hardware, like amplifiers, that are installed on strand in the normal course without a separate permit process or application. Because they are relatively small and lightweight, attached within the one-foot of pole space

allocated to the Attachment Customer, and affixed to the existing strand, no make-ready is required to accommodate the attachment. Like other strand-mounted cable hardware, small cell wireless devices do not materially impact pole loading and do not justify the imposition of costly, time consuming, and burdensome permitting requirements. I am not aware of any occasion where a strand-mounted wireless facility overloaded a pole. For these reasons, the requirements of the proposed tariff would needlessly slow, increase the costs of, and deter deployment of advanced communications facilities.

B. LG&E Has Not Demonstrated That Its Wireless Facility Attachment Charge Is Appropriate And Reasonable.

Q: Does the proposed tariff include a separate charge for wireless facility attachments?

A: Yes.

Q: What is the basis for LG&E's wireless facility attachment charge?

A: LG&E appears to have derived the wireless attachment charge by multiplying the annual attachment charge for a standard communications attachment – $7.25 per attachment – by 11.585 feet, which LG&E states represents the average space used for a wireless facility. *See* Application, Tab 14, Testimony of William Steven Seelye, Managing Partner, The Prime Group, LLC, at 83. The result is a wireless facility attachment charge of $84.00.

Q. Does LG&E's calculation rest on any assumptions?

A. Yes, many. First, it rests on the assumption that LG&E's attachment charge is calculated correctly. Second, the Company's attachment charge calculation rests

on the assumption that the standard attachment charge on a per-foot basis is the appropriate charge for wireless attachments. Third, LG&E's calculation rests on the assumption that all wireless facilities are pole top attachments that share all of the usable space on the structure with other attachers and require an additional five feet at the top of the structure. *See* Response to KCTA's First Request for Information No. 1-10. Fourth, the Company's calculation assumes that a pole-top wireless antenna prevents other uses of the entire vertical pole space traversed by the conduit that connects the antenna to facilities on the ground. LG&E has admitted that is not correct. *See* Response to Supplemental Request for Information of AT&T No. 2(c).

Q: Do you know whether LG&E provided information to support its assumptions about the space occupied by wireless attachments?

A. The Company has not provided any information to demonstrate that its assumption about the number of feet used by wireless attachments is reasonable or correct. In fact, LG&E has provided information showing that the assumption is not correct and is unreasonable.

Q. Has LG&E presented any basis for charging an attachment rate for wireless facility attachments that is different from its standard attachment?

A: No.

VIII. THE COMMISSION MUST ENSURE LG&E DOES NOT IMPROPERLY SHIFT AMS/DA COSTS TO ATTACHMENT CUSTOMERS WHO DO NOT BENEFIT FROM AMS/DA SYSTEMS.

Q: Are you familiar with LG&E's proposed AMS and DA systems.

A: Yes.

Q: Can you describe those planned systems?

A: The Advanced Metering System ("AMS") will replace existing customer electric and gas meters with smart meters to monitor usage and other relevant data. According to the Company, its planned AMS system will result in cost savings and energy conservation as well as provide customers with new tools to monitor their accounts and improve customer experiences. *See, e.g.*, Application, Tab 14, Testimony of John P. Malloy, Vice President, Customer Services, Louisville Gas & Electric Company and Kentucky Utilities Company, at 15-30, Exhibit 1.

The distribution automation ("DA") program will enable LG&E to perform remote monitoring and control of its electrical system. The Company plans to install 1,400 pole-mounted facilities that will connect into the DA and enable remote, intelligent control of various aspects of LG&E's electric systems and services. LG&E states the deployment of DA will improve reliability of electric service, monitor the health of the electric system, and ensure timely outage restoration. *See, e.g.*, Application, Tab 14, Testimony of Paul W. Thompson, Chief Operating Officer, Louisville Gas & Electric Company and Kentucky Utilities Company, at 38-45, Exhibit 5.

Q: Will the AMS/DA system benefit communications Attachment Customers?

A: To my knowledge, no, not specifically. Attachment Customers are also utility ratepayers, so they will necessarily share in the costs of these systems – for which they, as electric ratepayers, will pay their share in their electric bills. But they will not derive any particularized benefits from the systems. The Company's AMS appears principally geared to benefit residential electric and gas customers.

Q: Do you know whether LG&E intends to install AMS and DA equipment on structures on which communications Attachment Customers are also attached?

A: Yes. LG&E intends to install AMS equipment and facilities in the communications space on its structures. LG&E intends to install DA equipment in the power space on structures and will also place control boxes near the base of the structures. Because of the space requirements of these facilities, the Company intends to install taller structures in some cases to accommodate the equipment associated with these services. *See* Response to KCTA First Data Requests Nos. 1-24, 1-27. LG&E's business case in support of deployment forecasts replacement of 133 structures for AMS alone. *See* Response to PSC's Second Requests for Information No. 63, Confidential Attachment.

Q: Will LG&E's deployment of AMS/DA impact the attachments of communications attachers?

A: Yes. As noted above, the Company estimates that it will need to replace a number of structures to accommodate AMS/DA equipment and facilities. At a minimum, to accommodate the installation of AMS facilities, LG&E anticipates that it will replace more than 130 utility poles. *See* Response to PSC's Second Requests for Information No. 63, Confidential Attachment. The Company has also stated an intention to replace additional structures to accommodate DA equipment and facilities, but has not specified the number of structures that it currently anticipates it will replace. *See* Response to KCTA First Data Requests No. 1-24. If there are pre-existing communications attachments on these structures, as is most likely given the intention to deploy in Louisville, the pre-

existing communications attachers will be expected to remove and/or relocate their facilities to accommodate LG&E's deployment of AMS/ DA facilities.

Further, LG&E intends to install AMS equipment in the communications space on structures and DA equipment elsewhere on structures. Depending on the configuration of attachments on the structure and the space required by LG&E's equipment, communications Attachment Customers like Charter will likely need to rearrange their facilities to make space for utility installations.

Based on the information provided, it appears KCTA members, including Charter, will likely need to remove, relocate, and rearrange many existing facilities so LG&E can deploy AMS/DA. This will have serious impacts, and likely impose significant costs, on Charter and other KCTA members. Aside from the anticipated costs of the make-ready work, Charter and other providers likely will suffer service disruptions (of unknown severity) and have to reallocate precious resources away from core operations to address make-ready efforts.

Q: Under the proposed tariff, do you know who is to bear the cost of moving and/or rearranging communications attachments to accommodate the AMS/DA systems?

A: LG&E has stated the Attachment Customers will bear the cost of any transfer or rearrangement of attachment facilities required as a result of LG&E's deployment of AMS/DA systems. *See* Response to KCTA's First Requests for Information No. 1-27. In other words, the Company intends to impose the costs necessary to "create" space for its communications systems on third party Attachment Customers rather than its ratepayers.

Q: Is this reasonable?

A: No, not at all. Requiring Attachment Customers to transfer and rearrange attachment facilities at their own expense, or otherwise pay to create space for LG&E's systems, shifts costs appropriately borne by LG&E and its ratepayers in connection with the deployment of AMS/DA to Attachment Customers. Importantly, the proposed tariff already contemplates that Attachment Customers, as ratepayers, will bear their proportional share of these costs. Attachment Customers and their subscribers should not be required to subsidize LG&E's deployment of communications systems through additional costs.

Indeed, under the existing and proposed tariff, when new attachers request existing attachers move to accommodate new attachments they wish to make, they must pay the existing Attachment Customers' costs to make the necessary adjustments. *See* PSA Rate Schedule, Term & Condition 7(d). And under the existing and proposed tariff, if an Attachment Customers requests LG&E to rearrange its facilities to accommodate an attachment, the Attachment Customers pays LG&E to make required adjustments. *See* PSA Rate Schedule, Term & Condition 15(a). This is the appropriate and reasonable approach because new attachers are properly obligated to incur costs to accommodate their attachments. The approach therefore makes sense as well where LG&E seeks to displace existing Attachment Customers facilities to deploy its own communications system for the benefit of electric rate payers.

The Commission must ensure that third party Attachment Customers like Charter and KCTA members are not inappropriately forced to bear make-ready or other

costs to create space for LG&E to deploy AMS/DA that are properly born by LG&E and its ratepayers.

Q: Which party should handle transferring or rearranging the attachment facilities that must be moved in order to accommodate AMS/DA equipment and facilities?

A: The Attachment Customers should be provided notice of the requested transfer or rearrangement of its facilities and the opportunity and sufficient time to transfer or rearrange its own facilities. It is critically important for Attachment Customers to handle their own facilities according to their own specifications and procedures. They know their networks and how their facilities are to be handled. They also have the greatest incentive to ensure that their facilities are handled properly and that rearrangements or relocations are carried out properly and do not result in unplanned outages, loss of system integrity, or damaged facilities. This is a widely accepted common industry practice. *See* PSA Rate Schedule, Term & Condition 15(b).

Under the proposed tariff, however, it is unclear whether LG&E intends to provide Attachment Customers advance notice of the transfer or rearrangement of existing attachments or the opportunity to make any requested adjustments to its own attachment facilities. *See* Response to KCTA's First Request for Information No. 1-27. These rights need to be made express in the tariff because LG&E should not be permitted to handle an Attachment Customers' facilities as it builds out its own communications systems. If LG&E moves and/or rearranges an Attachment Customer's facilities, it could undermine the Attachment Customer's

ability to operate and maintain its attachments, compromise the reliability of its communications network, and/or interfere with its ability to serve customers.

IX. THE COMMISSION MUST ENSURE THAT LG&E'S PROPOSED ELECTRIC RATE INCREASE ON ATTACHMENT CUSTOMERS IS JUST AND REASONABLE.

Q: Do you know whether Charter's electric rate will increase under the proposed tariff?

A: Yes, it is slated to increase substantially under the proposed electric tariff.

Q: Do you know what, if any, impact the electric rate increase will have on Charter and KCTA's members?

A: As with any increase in costs, the electric rate increase will increase Charter's and KCTA's other members' costs to serve customers. Accordingly, the Commission must ensure that LG&E increases its electric rates is just and reasonable.

X. CONCLUSION

Q: Does this conclude your testimony?

A: Yes, it does.

[VERIFICATION ON SEPARATE PAGE]

VERIFICATION

STATE OF OHIO)
) SS:
COUNTY OF HAMILTON)

The undersigned, **Joseph H. Crone III**, being duly sworn, deposes and says that he is the Senior Director of Regional Construction for Charter Communications in the Southern Ohio Region, and that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge, and belief.

Joseph H Crone III

Joseph H. Crone III

Subscribed and sworn to before me, a Notary Public, in and before said County and State, this 1 day of March, 2017.

Tamara Newsom (SEAL)
Notary Public

My Commission Expires: