COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES)	
COMPANY FOR AN ADJUSTMENT OF ITS)	CASE NO.
ELECTRIC AND GAS RATES AND FOR)	2016-00370
CERTIFICATES OF PUBLIC CONVENIENCE)	
AND NECESSITY)	

RESPONSE OF KENTUCKY UTILITIES COMPANY TO SECOND REQUESTS FOR INFORMATION OF KENTUCKY CABLE TELECOMMUNICATIONS ASSOCIATION DATED FEBRUARY 7, 2017

FILED: FEBRUARY 20, 2017

VERIFICATION

COMMONWEALTH OF KENTUCKY))) SS: COUNTY OF JEFFERSON

The undersigned, Robert M. Conroy, being duly sworn, deposes and says that he is Vice President - State Regulation and Rates for Louisville Gas and Electric Company and Kentucky Utilities Company, an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Robert M. Conroy

Subscribed and sworn to before me, a Notary Public in and before said County

and State, this 1th day of Schuling 2017.

ly Schooles (SEAL)

My Commission Expires: JUDY SCHOOLER Notary Public, State at Large, KY My commission expires July 11, 2018 Notary ID # 512743

VERIFICATION

COMMONWEALTH OF KENTUCKY SS:)) **COUNTY OF JEFFERSON**

The undersigned, John P. Malloy, being duly sworn, deposes and says that he is Vice President - Gas Distribution for Louisville Gas and Electric Company and Kentucky Utilities Company, an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

John P. Malloy

Subscribed and sworn to before me, a Notary Public in and before said County

and State, this 20th day of Fitury 2017.

fildy febria (SEAL)

My Commission Expires: JUDY SCHOOLER Notary Public, State at Large, KY My commission expires July 11, 2018 Notary ID # 512743

VERIFICATION

COMMONWEALTH OF KENTUCKY)) SS: COUNTY OF JEFFERSON)

The undersigned, John K. Wolfe, being duly sworn, deposes and says that he is Vice President - Electric Distribution for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

John K. Wolfe

Subscribed and sworn to before me, a Notary Public in and before said County

and State, this 30th day of felicing 2017.

Villey Schoole (SEAL)

My, Commission, Expires: JUDY SCHOULER Notary Public, State at Large, KY My commission expires July 11, 2018 Notary ID # 512743

CASE NO. 2016-00370

Response to Second Requests for Information of Kentucky Cable Telecommunications Association Dated February 7, 2017

Question No. 2-1

- Q.2-1. Please refer to First Responses 1-7. Please provide examples of "wireless facilities" that do not require direct attachment to a Structure.
- A.2-1. A wireless facility may require the use of a standoff bracket to mount the facility to the pole, particularly when mounted below KU's electric facilities. An example diagram of a Wireless Facility on a stand-off bracket can be seen on page 23 of 39 of the attachment produced in response to KCTA 1-16. A wireless facility may also be attached to an existing messenger supporting a communications cable.

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Question No. 2-2

Responding Witness: Robert M. Conroy

- Q.2-2. For wireless facilities that are not attached to a Structure, will such facilities categorically be subject to the Wireless Attachment Charge?
 - a. If yes, please explain why the Wireless Attachment Charge is appropriate for such facilities.
 - b. If no, please explain what, if any, charges will apply to wireless facilities that are not attached to a Structure.

A.2-2. No.

- a. N/A
- b. Wireless facilities mounted to a pole on a stand-off bracket as depicted on page 23 of 39 of the attachment produced in response to KCTA 1-16 will be subject to the Wireless Attachment Charge. As answered in KCTA 1-8, a wireless facility attached to an existing messenger supporting a communications cable is not subject to the Wireless Attachment Charge.

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Question No. 2-3

Responding Witness: Robert M. Conroy

- Q.2-3. Please refer to First Responses 1-8. Will any strand-mounted wireless facility be subject to a separate charge where the strand does not require additional clearance as a result of the strand mounted Wi-Fi access point?
 - a. If the answer is yes, please identify all such devices.
 - b. If strand-mounted Wi-Fi access points constitute an "attachment," explain any separate charges applicable to strand-mounted facilities and how such charges are proposed to be calculated.

A.2-3. No.

- a. N/A.
- b. As indicated in response to KCTA 1-8, a wireless facility attached to an existing messenger supporting a communications cable is considered part of the wireline attachment.

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Question No. 2-4

- Q.2-4. Please refer to First Responses 1-10. Does the existence of conduit running through the initial presumed 13.17 feet of usable space prevent You or any other Attachment Customer from making use of the space? If the answer is yes, please explain and provide all data relevant to Your explanation.
- A.2-4. See the response to AT&T 2-2c.i.

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Response to Second Requests for Information of Kentucky Cable Telecommunications Association Dated February 7, 2017

Question No. 2-5

Responding Witness: Robert M. Conroy

- Q.2-5. Does the Wireless Attachment Charge apply only to pole top wireless antenna attachments?
 - a. If the answer to Request 2-5 is no, identify the nature of all other Wireless Facilities to which the Wireless Attachment Charge applies.
 - b. If the answer to Request 2-5 is no, explain whether all Wireless Facilities, irrespective of their location on the pole, occupy 11.585 feet of pole space?
 - c. If the answer to Request 2-5 is no, please explain the amount of space occupied by Attachments identified in response to Request 2-5(a).
- A.2-5. No.
 - a. Currently, the Wireless Attachment Charge applies to Wireless Facilities similar to those depicted in the KU construction standards on pages 22 to 26 in the attachment provided in response to KCTA 1-16. KU anticipates that the Wireless Facilities depicted in the KU construction standards referenced above may evolve as technology changes, and anticipates that the Wireless Facility Charge will apply to Wireless Facilities similar in nature to those depicted in the KU construction standard.
 - b. Consistent with the calculation of the wireline pole attachment rate as set forth by KPSC Administrative Case No. 251, KU developed a reasonable usage factor for the typical Wireless Facility attachment. All existing Wireless Facility attachments to KU poles are located at the pole top. KU's Wireless Facility Attachment Charge, much like the wireline attachment charge, presumes a level of pole space usage for all Wireless Facility attachments regardless of actual usage and actual pole height. KU has not asserted that each Wireless Facility will occupy 11.585 feet of pole space, nor does KU expect that each Wireless Facility will occupy precisely 11.585 feet of pole space.
 - c. See the response to part b.

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Question No. 2-6

Responding Witness: John K. Wolfe

- Q.2-6. Are Attachment Customers entitled to rebut the presumption that Wireless Facilities occupy 11.585 feet of pole space?
 - a. If the answer to Request 2-6 is no, please explain the basis for your conclusion that the space occupancy presumption is not rebuttable.

A.2-6. No.

a. The Wireless Facility attachment charge is designed to address the attachment of Wireless Facilities generally referred to as Small-Cell Wireless Antennas or as Distributed Antenna Systems. KU's construction standards currently permit Wireless Facility attachments in a manner similar to those depicted on pages 22 to 26 of the attachment provided in response to KCTA 1-16. Strand mounted Wireless Facilities are considered part of the wireline attachment and must meet KU's construction standards for wireline attachments. The PSA Rate Schedule contains no provision for differing rates based upon a wireless facility's size or space usage. It requires LG&E to assess the same rate for all wireless facilities seeking to attach to an LG&E structure.

If an attachment customer proposes to attach Wireless Facilities that significantly differ from those contemplated by KU's construction standards and that require significantly less pole space, the attachment customer may request that KU permit the placement of the attachments under a special contract that contains a rate that differs from the PSA Rate. Such a contract would be subject to Commission review and approval. If the attachment customer and KU are unable to agree upon the need for or the terms of a special contract, the attachment customer may file a complaint with the Commission seeking different terms. KU will periodically review the types of wireless facilities attaching to its structures to determine if revisions to the PSA Rate Schedule are required because of changes in wireless facility design or technology.

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Question No. 2-7

- Q.2-7. Please refer to First Responses 1-14. Explain and provide all data related the degree to which overlashed cables increase the weight, tension, and diameter of an existing cable.
- A.2-7. The additional weight and diameter attributable to a cable being overlashed to an existing cable is equal to the weight and diameter of the cable being added. The additional tension is directly related to the weight of the additional cable and the tension of the existing cable attachment. Data related to the degree of tension added to an existing cable is not readily available.

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Question No. 2-8

Responding Witness: John K. Wolfe

Q.2-8. Please refer to First Response 1-20.

- a. Identify and provide a copy of any materials provided to personnel or contractors used in conducting Attachment audits.
- b. Explain how Your personnel or contractors will determine Attachments are unauthorized from visual field inspections, including how they will determine the identity of the entity whose Attachment is unauthorized.
- c. Explain what reports and other data Your personnel or contractors will be required to submit to verify the number, location, and type of Attachments.
- d. Explain the procedures Attachment Customers may use to dispute the accuracy of the visual inspection conducted by Your personnel or contractors.
- A.2-8.
- a. KU provides its employees or contractor resources maps or shapefiles of the specific poles to be inspected. The specific information provided for past attachment audits is not readily available.
- b. KU or its contractor resources may be tasked with physically counting the total number of attachments in a given area. If the number of attachments counted for a particular company is greater than the number of attachments known by KU, the excess attachments are presumed to be unauthorized. The attachment owner is determined by viewing the identification tag that is on each communications cable at every pole, or, in the event the tag is missing, by tracing the cable to a point where that cable can be identified (possibly where the identification tag is present, to an origination or termination point, etc.)
- c. Attachments counted during inspection are tracked by the pole number of the pole to which they are attached and that information is mapped in our Geographic Information System.

d. If attachment customer disputes the accuracy of the visual inspection, KU will provide a map of poles to which the attachment customer is attached. Attachment Customer can review the map, dispute ownership of the attachment or submit evidence that the attachment location was previously approved by KU. Pursuant to KRS 278.260, the attachment customer may seek Commission review of KU's final decision regarding the number of attachments and whether such attachments were authorized.

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Question No. 2-9

Responding Witness: Robert M. Conroy / John K. Wolfe

Q.2-9. Please refer to First Response 1-21.

- a. Explain Your procedures and policies for "spot inspections."
- b. Explain the procedures and policies that relate to "periodic inspections," including how they differ from spot inspections, who will conduct them, how frequently You will conduct them, and what information will be collected and shared with Attachment Customers regarding any unauthorized Attachments.
- c. Explain the procedures by which an Attachment Customer may dispute the accuracy of alleged unauthorized Attachments identified through any spot inspections or periodic inspections.
- A.2-9.
- a. A spot inspection contemplates a situation in which KU has reason to believe an attachment customer has made attachments on a specific route without KU's prior approval or a KU employee familiar with attachment customer's attachments in a particular area spots an attachment customer in the process of making new attachments without KU's prior approval.
- b. See the response to part a for the policies and procedures related to "spot inspections." See also the response to Question No. 2-8b and c for policies and procedures related to "periodic inspections."
- c. An attachment customer may dispute alleged unauthorized attachments identified in spot inspections by showing prior approval by KU to make such attachments. For the dispute process for periodic inspections, see the response to Question No. 2-8d.

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Question No. 2-10

Responding Witness: John P. Malloy

- Q.2-10. Please refer to First Responses 1-23. For AMS field devices that use private fiber optic cable for communications, where will the fiber optic cables attach to Your poles?
 - a. Will fiber optic cables be placed in the communications space?
 - b. Will You use existing fiber optic cables or lease fiber strands from third parties to meet the needs of your AMS field devices?
- A.2-10. KU does not plan to run or lease any new fiber for the AMS project. The goforward plan for AMS is to use cellular backhaul, not fiber. At some later date, where we have fiber available, KU may migrate from cellular to fiber. This would be only at a small number of sites as our fiber does not cover many of the new AMS sites.
 - a. KU does not plan to run any new fiber optic cables for AMS in the current plan.
 - b. If KU decides to move to fiber at some point in the future, the plan would be to only use existing fiber. KU has no plans to lease fiber strands from third parties.

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Question No. 2-11

- Q.2-11. Please refer to First Responses 1-24. Where will You place electronic sectionalizing devices on distribution poles?
- A.2-11. Electronic sectionalizing device is a broad term that encompasses equipment such as reclosers. See response to KCTA 1-24 for a description of where electronic sectionalizing devices will be installed on distribution poles.

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Question No. 2-12

Responding Witness: John P. Malloy

- Q.2-12. Please refer to First Responses 1-26. Have you prepared any study of the type and extent of make ready necessary for deploying AMS field devices across Your distribution network?
 - a. Do you intend to undertake any such study or analysis?
- A.2-12. Preliminary design work has been completed and is now being refined. The Companies worked with their AMS vendor to establish preliminary locations for AMS field devices to be located on the Companies' distribution network. These locations are designed to maximize the coverage of the RF mesh network taking into consideration topography, proximity to the Companies' distribution network, and density of meters. Next steps include site visits to confirm the availability and suitability of locations to install AMS field devices on the Companies' distribution network facilities.
 - a. No additional studies or analysis will be performed.

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Question No. 2-13

Responding Witness: John P. Malloy / John K. Wolfe

- Q.2-13. Please refer to First Responses 1-27. Do you know how many poles you will You need to replace to accommodate AMS equipment?
 - a. Who will pay for pole replacements necessary to accommodate AMS equipment?
- A.2-13. KU's deployment plan and design calls for selecting poles where only minimal make-ready work in the supply space will be necessary for the installation of AMS equipment. KU anticipates a nominal number of pole replacements.
 - a. Any pole replacements necessary to accommodate AMS equipment will be paid for by KU. Pursuant to Section 4 of the existing CTAC schedule and Section 15 of the proposed PSA schedule, the Attachment Customer bears the costs and expenses of any transfer or relocation of its own facilities.

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Response to Second Requests for Information of Kentucky Cable Telecommunications Association Dated February 7, 2017

Question No. 2-14

Responding Witness: John P. Malloy / John K. Wolfe

- Q.2-14. Please refer to First Responses 1-27. On how many poles will You require third party Attachment Customers to move or rearrange their Attachments to accommodate AMS equipment?
- A.2-14. KU anticipates that any requests requiring third party Attachment Customers to move or rearrange their Attachments to accommodate AMS equipment will be minimal.

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Response to Second Requests for Information of Kentucky Cable Telecommunications Association Dated February 7, 2017

Question No. 2-15

Responding Witness: Robert M. Conroy

- Q.2-15. Please refer to First Responses 1-29. Will the CPCN enable You to provide communications services to Your customers?
- A.2-15. The CPCN authority requested will not enable KU to provide communications services to any customers. Moreover, as KU stated in its February 10, 2017 Supplemental Response to KCTA 1-25, it is not aware of any communications services the proposed AMS or DA systems could provide other than those necessary for AMS and DA.

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Response to Second Requests for Information of Kentucky Cable Telecommunications Association Dated February 7, 2017

Question No. 2-16

Responding Witness: Robert M. Conroy

Q.2-16. Please refer to First Responses 1-30.

- a. Please state the electric tariff rate charged to cable television providers and telecommunications providers under the existing tariff and under the proposed new tariff.
- b. Please explain the basis and cost justification for, as well as any data or documents related to, any electric rate increase imposed on cable television providers and telecommunications providers.
- A.2-16. See the response to KCTA 1-30. The Company does not have a rate or rates for electric service specifically designed for, or applicable to, cable television providers or telecommunications providers; rather, the Company's rates apply based on service characteristics, particularly demand levels for non-residential customers.

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Response to Second Requests for Information of Kentucky Cable Telecommunications Association Dated February 7, 2017

Question No. 2-17

- Q.2-17. Please refer to Your Response to AT&T's Initial Data Requests for Information No. 2. Do all Attachments of Wireless Facilities deployed by Customers A, B, and C conform to Your assumptions regarding the amount of space Wireless Facilities occupy?
 - a. If the answer to Request 2-17 is no, do the Wireless Facilities occupy more or less space than Your assumptions?
 - b. If the answer to Request 2-17 is no, identify and provide (to the extent You have not already done so) do any agreements with the Attachment Customers regarding these Wireless Facilities?
- A.2-17. For KU, there is only a Customer A in the response. That information is not readily available. However, based on KU's response to AT&T 1-5 showing that an average pole height for pole supporting Wireless Facility attachments is 47.73 feet, it is reasonable for KU to assume that the Wireless Facilities occupy more space than KU's assumptions. Furthermore, the 13.17 feet of usable space used in the Wireless Facility attachment charge calculation is based on typical pole height of 42.5 feet. 42.5 feet for the typical pole plus 5 feet of additional height required for the Wireless Facility is slightly less than the actual average pole height for Wireless Facility attachments to KU poles.
 - b. These agreements were provided in response to AT&T 1-3.

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Response to Second Requests for Information of Kentucky Cable Telecommunications Association Dated February 7, 2017

Question No. 2-18

Responding Witness: Robert M. Conroy

- Q.2-18. Please refer to Your Response to AT&T's Initial Data Requests for Information No. 8. Please explain what kinds of "exceptional circumstances" would justify, and have in the past justified, deviations from the PSA Rate Schedule for Attachments of Wireless Facilities.
- A.2-18. As the PSA Rate Schedule has yet to take effect, there have been no exceptional circumstances in the past to justify the use of a special contract in lieu of the PSA Rate Schedule. For an example of a circumstance that would support the use of a special contract in lieu of the PSA Rate Schedule, see proposed Original Sheet No. 40.7 (PSA Rate Schedule, Terms and Conditions of Attachment ¶7h).

KU is otherwise unable to predict the circumstances that may require a special contract. Such contracts are intended to address unforeseen and unusual circumstances. The Public Service Commission noted as much when in Case No 9764 it stated:

Special contracts are indispensable for meeting the special needs of certain customers, where a proper showing is made. A general tariff can never anticipate every set of circumstances that may arise.

Application of Columbia Gas of Kentucky Inc. and Toyota Motor Manufacturing, U.S.A., Inc. For Approval of Special Contract, Case No. 9764 (Ky. PSC Feb. 12, 1987) at 11. See also The Tariff Application of General Telephone Company of the South for a Special Service Arrangement, Case No. 9590 (Ky. PSC Oct. 1, 1986) at 2 ("special contracts are filed with the Commission in situations where averaged general subscriber rates and charges in tariffs are inappropriate.").

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Response to Second Requests for Information of Kentucky Cable Telecommunications Association Dated February 7, 2017

Question No. 2-19

Responding Witness: John P. Malloy

- Q.2-19. Please refer to Your Response to Commission Staff's Second Requests for Information No. 2. Please explain what kinds of data AMS will allow to be remotely communicated.
- A.2-19. AMS endpoints are capable of remotely communicating demand (kW) and energy (kWh) register readings, and equipment specific alerts used for diagnostic monitoring and system operations that includes billing, engineering, and customer service applications. Examples include billing cycle information, voltage/loss of voltage, communications status, and service connect/disconnect commands. The ability of AMS endpoints to remotely communicate data eliminates the need, in most cases, to physically inspect the meter and service connection.

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Response to Second Request for Information of Kentucky Cable Telecommunications Association's Dated February 7, 2017

Question No. 2-20

Responding Witness: Robert M. Conroy / John P. Malloy

- Q.2-20. Please refer to Your Response to Commission Staff's Second Requests for Information No. 63(b). What, if any, communications services could you offer using ZigBee?
 - a. If you offered the services listed in response to Request 2-20, would you be required to seek a CPCN to activate the ZigBee communications services?
- A.2-20. The Company could use the ZigBee communications capabilities in the meter for sending messages to the customer about utility programs and services through an in-home device. The Company does not consider this a communication service.
 - a. The Company does not believe a CPCN would be required as the services offered would be in the normal course of business.