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10725 Bowling Green Road, P.O. Box 97

Auburn, KY 42206

**RECEIVED**

**FEB 17 2016**

**PUBLIC SERVICE  
COMMISSION**

**Case No. 2016-00081**

Executive Director  
KY Public Service Commission  
211 Sower Boulevard  
P.O. Box 615  
Frankfort, KY 40602-0615

February 16, 2016

Re: In the Matter of the Application of Logan Telephone Cooperative, Inc. for a Certificate of Public Convenience and Necessity for Construction of a Fiber-to-the-Premise Network

Dear Director,

Attached for your review is an Application for a Certificate of Public Convenience and Necessity for the construction of a fiber-to-the-premise (FTTP) network in a specific operating area of Logan Telephone Cooperative, Inc.

Enclosed are one (1) original application and ten (10) copies. Also enclosed are one (1) copy of the maps, plans, specs and drawings of the proposed construction in pdf format on compact disk and two (2) copies on paper.

If you have any questions about this application please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Gregory A. Hale". The signature is written in a cursive, flowing style.

Gregory A Hale  
General Manager/Executive Vice President  
[ghale@loganphone.com](mailto:ghale@loganphone.com)  
Main: 270.542.4121  
Fax: 270.542.4800

*www.logantele.com*

RECEIVED

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

FEB 17 2016

PUBLIC SERVICE  
COMMISSION

In the Matter of:

THE APPLICATION OF LOGAN TELEPHONE )  
COOPERATIVE, INC. FOR A CERTIFICATE )  
OF PUBLIC CONVENIENCE AND NECESSITY )  
FOR THE CONSTRUCTION OF FIBER-TO-THE- )  
PREMISE IN PORTIONS OF LOGAN COUNTY )  
AND MUHLENBERG COUNTY, KENTUCKY )

Case No. 2016-00081

APPLICATION FOR CERTIFICATE OF PUBLIC CONVENIENCE AND  
NECESSITY FOR CONSTRUCTION OF FIBER-TO-THE-PREMISE

Logan Telephone Cooperative, Inc.(Logan), pursuant to KRS 278.020 and 807 KAR 5:001, hereby submits this application for a certificate of public convenience and necessity (CPCN) for the construction of Fiber-to-the-Premise (FTTP) in portions of Logan County and Muhlenberg County, Kentucky.

1. Pursuant to 807 KAR 5:001 Section 14(1) The full name, address and email address of Logan is Logan Telephone Cooperative, Inc., P.O. Box 97, 10725 Bowling Green Road, Auburn, KY 42206, ghale@loganphone.com.
2. Pursuant to 807 KAR 5:001 Section 14(2) Logan is a Kentucky Cooperative Corporation in good standing and our Articles of Incorporation are attached as Exhibit A.
3. Pursuant to 807 KAR 5:001 Section 15(2)(a) we provide the following facts relied upon to show that the proposed construction will be required by public convenience and necessity.
  - a. Currently Logan members are requesting higher speed broadband services than are available through Logan's existing copper/fiber hybrid network.
  - b. In the FCC's 2014 Measuring Broadband Report<sup>1</sup> the FCC found that the average speed subscribed had reached 21.2 Megabytes, an increase of 36% over the previous year. This type of speed, and the speeds Logan members will need in the future, will require a FTTP network.

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<sup>1</sup> <http://data.fcc.gov/download/measuring-broadband-america/2014/2014-Fixed-Measuring-Broadband-America-Report.pdf> pages 13-14 See Exhibit B

- c. It is generally known that fiber will be an economic engine for long term growth and will create new opportunities in employment, education, health care and entrepreneurship. Quality of life for members will increase as work-from-home opportunities, entertainment services, cloud computing, and other IP offerings require very high speed broadband only available through FTTP networks like those proposed in this application.
- 4. Pursuant to 807 KAR 5:001 Section 15(2)(b) Logan does not require franchise approval from any public authority to deploy the facilities described herein. Any highway or railway permits will be obtained prior to start of construction. The majority of this construction will be on private right-of-way.
- 5. Pursuant to 807 KAR 5:001 Section 15(2)(c) Logan provides the following description of the proposed location, construction manner and identifies any competitors.
  - a. The proposed location for this construction is an area in and around the city of Dunmor that Logan currently serves by copper cable coming from its Dunmor Central Office and two remote locations. Maps showing the proposed area and the effected routes are included with this application. This area is located in our Dunmor exchange.
  - b. This project will enable Logan to provide enhanced broadband services to an additional 612 locations. Initially Logan will offer members service up to 100 megabits per second through this active fiber network. The proposed project will provide members with the most advanced broadband infrastructure available. This infrastructure will allow for the offering of other advanced services in the future.
  - c. Fiber optic cable will be placed between Logan's Dunmor Central Office and each inhabitable premise that desires service on the proposed routes. The cable will be direct buried at a depth of at least 30 inches. The interface between the buried main line cable and the subscriber cable or drop will be in a below ground level handhole or an above ground pedestal.
  - d. In addition to the fiber-optic cable facilities, Logan will place electronic equipment in its Dunmor central office to transport the optical signal from the central switch and central network to each customer. This optical signal will be converted at the customer's premise to an electrical signal for service to the customer's telephone, computer or other network device.
  - e. Even though this project will not use RUS financing, the construction will be performed under Rural Utilities Service (RUS) specifications for direct buried plant and for customer premise cable.

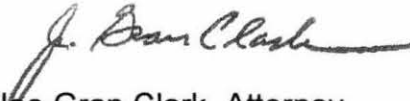
- f. Logan has no competition in fixed broadband services or basic voice services in the proposed area. No other companies have deployed FTTP networks in our service areas.
  - g. Logan expects construction to begin in June 2016 and be completed in Spring 2017. Some customers may be cutover to the new network beginning in Fall of 2016 as portions of the network is completed and we expect cutover will be completed in Summer 2017.
- 6. Pursuant to 807 KAR 5:001 Section 15(2)(d), two copies of the required maps, plan, specs and drawings are being included with this application as well as one copy in pdf format on compact disk.
  - 7. Pursuant to 807 KAR 5:001 Section 15(e) Logan plans to finance all proposed construction, engineering and electronics through a combination of its own capital assets and some short term debt. Current cash flow projections show that additional capital assets are expected in the future but the timing of the construction invoices versus future asset availability will determine the need for any short term debt to complete this project. Logan has no debt at this time and any debt requirements will be determined as construction is completed. Logan expects any debt to be considered short-term with KRS 278.300 (8) to apply in regards to commission approval.
  - 8. Pursuant to 807 KAR 5:001 Section 15(f) Logan estimates that annual operational costs will significantly decline in the areas where FTTP is deployed. While it is difficult to identify costs savings in just a portion of our network, A FTTP Council study<sup>2</sup> reports that survey respondents estimate an average of over 20 percent savings in operational costs due to Active FTTP deployment.
  - 9. At this time, Logan does not anticipate any local telephone rate adjustments associated with this project. As the commission is well aware, Logan is being required by the Federal Communications Commission to raise rates in the future to meet federal urban benchmarks in order to receive Logan's full share of Universal Service or Connect America Fund dollars.

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<sup>2</sup> <http://www.ftthcouncil.org/d/do/1136> page 10 See Exhibit C

Based on the foregoing, and in accordance with KRS 278.020, Logan Telephone Cooperative respectfully requests that the Commission issue a CPCN to deploy a FTTP network in the included service area.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Joe Gran Clark", with a long horizontal flourish extending to the right.

Joe Gran Clark, Attorney  
P.O. Box 116 Russellville, KY 42276  
Main: 270.726.2085  
Fax: 270.726.2081  
jgclarklaw@bellsouth.net

LOGAN TELEPHONE  
COOPERATIVE  
EXHIBIT A

ARTICLES OF INCORPORATION OF LOGAN  
COUNTY RURAL TELEPHONE COOPERATIVE CORPORATION

KNOW ALL MEN BY THESE PRESENTS: that the following persons do associate themselves together to form a corporation under the laws of the Commonwealth of Kentucky: W. Gaston Coke, Auburn, Kentucky; Loyd Johns, R. F. D., Lewisburg, Kentucky; John McCarley, R. F. D., Russellville, Kentucky; R. B. Porter, Quality, Kentucky; Buford Campbell, R. F. D., Adairville, Kentucky; R. H. Bailey, R. F. D., Homer, Kentucky; H. L. Barnes, Lewisburg, Kentucky; A. G. Johnson, R. F. D., Adairville, Kentucky; T. I. Mobley, R. F. D., Auburn, Kentucky.

ARTICLE I. The Logan County Rural Telephone Cooperative Corporation, Inc. is formed pursuant to provisions of KRS 279.310 to KRS 270.600.

ARTICLE II. The name of the corporation shall be Logan County Rural Telephone Cooperative Corporation, Inc.

ARTICLE III. The address of its principal office shall be Russellville, Kentucky, and the incorporators are as follows: W. Gaston Coke, Auburn, Kentucky; Loyd Johns, R. F. D., Lewisburg, Kentucky; John McCarley, R. F. D., Russellville, Kentucky; R. B. Porter, Quality, Kentucky; Buford Campbell, R. F. D., Adairville, Kentucky; R. H. Bailey, R. F. D., Homer, Kentucky; H. L. Barnes, Lewisburg, Kentucky; A. G. Johnson, R. F. D., Adairville, Kentucky; T. I. Mobley, R. F. D., Auburn, Kentucky.

ARTICLE IV. The trustees shall be the same as the Incorporators and they shall have the power to adopt by-laws for this corporation.

ARTICLE V. The corporation shall operate in parts of Logan, Todd, Muhlenberg, Butler, Warren, and Simpson counties, Kentucky.

ARTICLE VI. The private property of the trustees and members of the cooperative shall not be subject to the payment of the debts of the corporation.

ARTICLE VII. The corporation shall have perpetual existence.

ARTICLE VIII. W. Gaston Coke, Auburn, Kentucky, shall be process agent.



IN TESTIMONY WHEREOF, witness the hands of the parties  
hereto this 15<sup>th</sup> day of May, 1954.

R. H. Bailey  
Lloyd Johns  
H. L. Barnes  
A. G. Johnson  
T. I. Mobley

J. B. Campbell Jr.  
John D. McCarley  
R. B. Porter  
W. Gaston Coke

STATE OF KENTUCKY  
COUNTY OF LOGAN

I, J. Cranville Clark, a notary public in and for the  
county and state aforesaid, do hereby certify that the foregoing  
Articles of Corporation of Logan County Rural Telephone Cooperative  
Corporation, Incorporated were this day produced to me in my  
office by W. Gaston Coke, Lloyd Johns, John McCarley, R. B. Porter,  
Buford Campbell, R. H. Bailey, H. L. Barnes, A. G. Johnson,  
T. I. Mobley, and acknowledged and delivered by said parties to  
be their act and deed.

Witness my hand this 15<sup>th</sup> day of May, 1954.

J. Cranville Clark  
Notary Public, Logan County, Ky.  
Comm Exp 20 Jan 1955

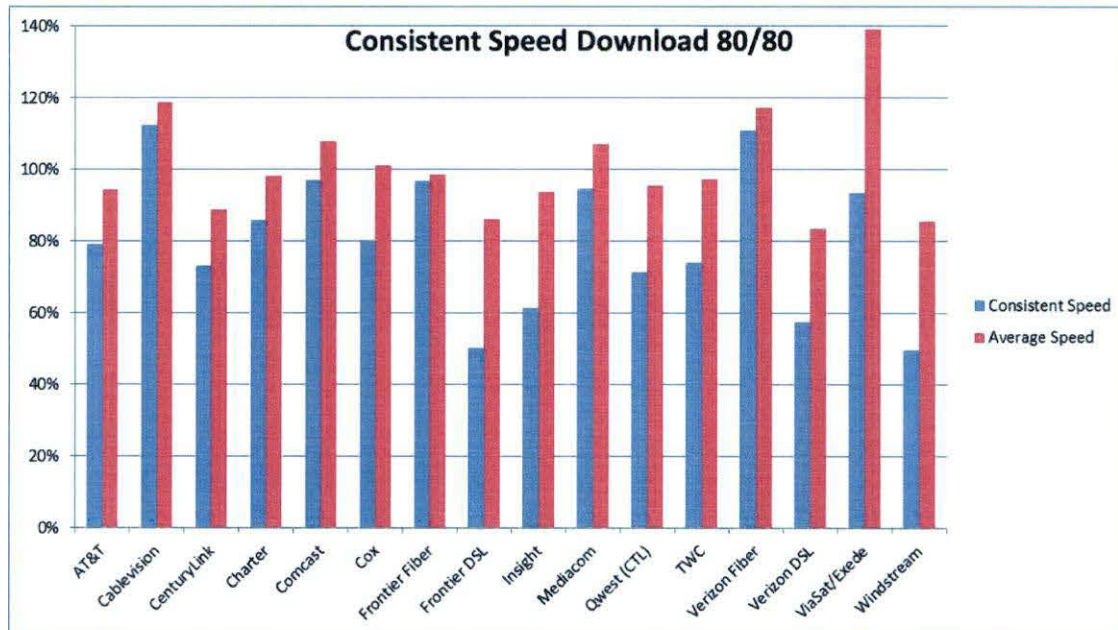
ORIGINAL COPY  
FILED AND RECORDED

MAY 24 1954

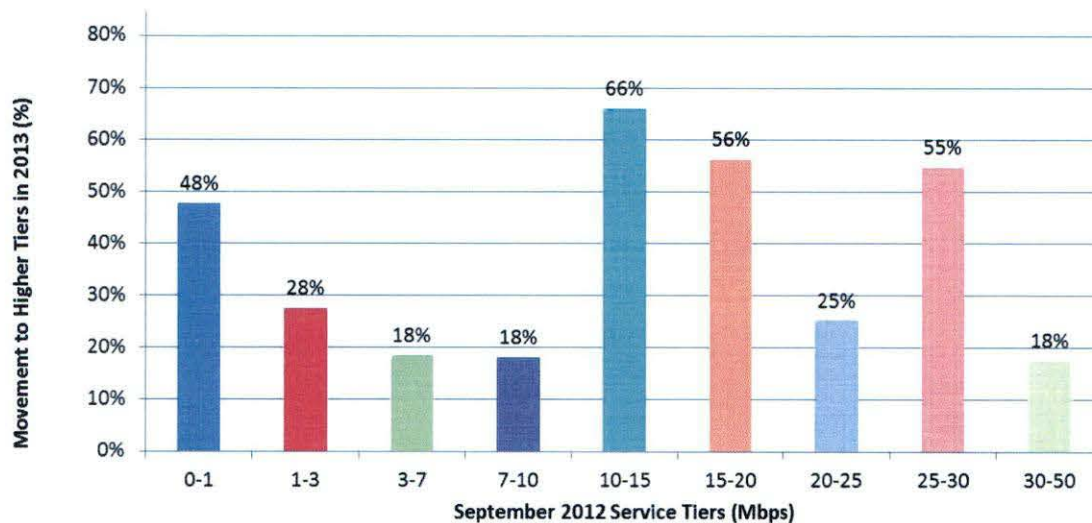
Charles K. Connell  
SECRETARY OF STATE OF KENTUCKY  
FRANKFORT, KENTUCKY  
BY R. L. Davis  
CHIEF CORP. CLERK

## LOGAN TELEPHONE EXHIBIT B

Measuring Broadband America



### 3. Consumers are continuing to migrate to faster speed tiers.

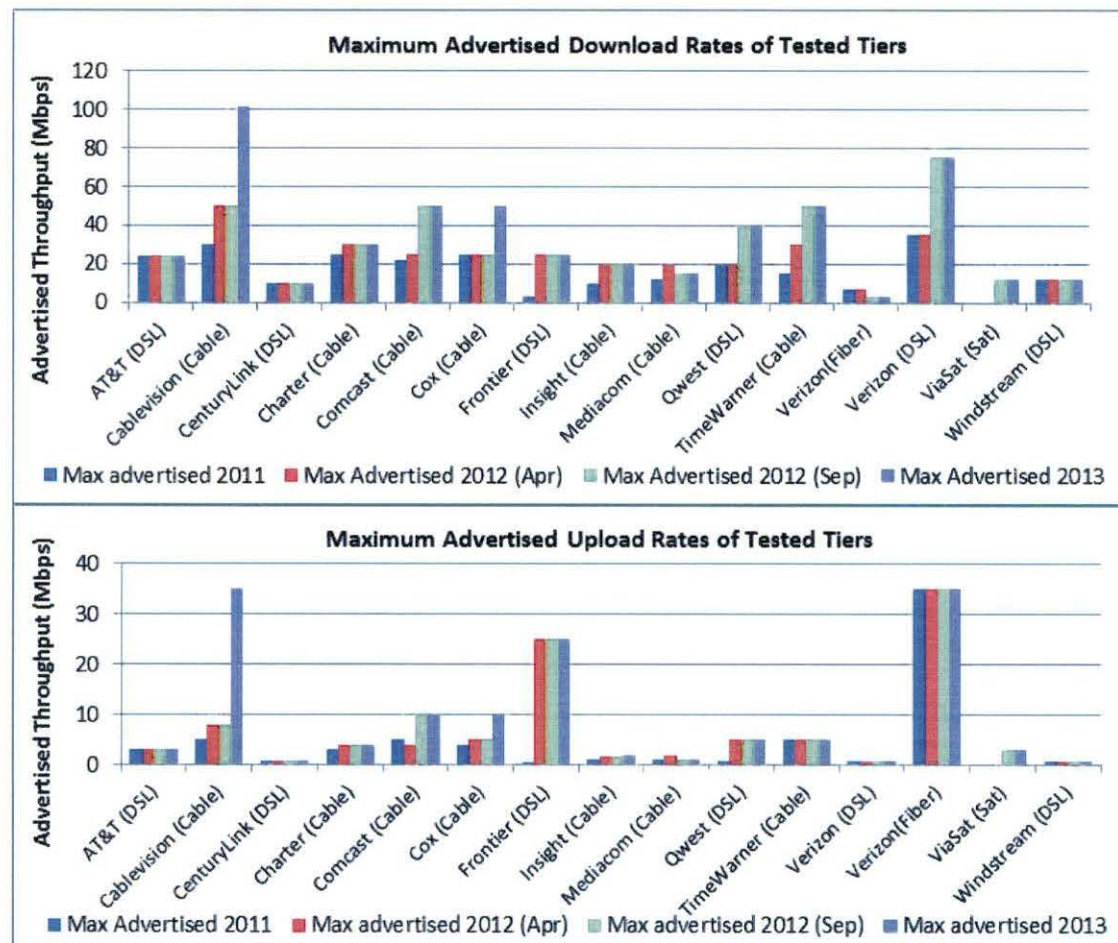


This chart shows that consumers are moving to faster speed tiers, continuing the trend that we highlighted both in the February 2013 Report and the July 2012 Report. Specifically, the bars represent the percentage of volunteers from each of the September 2012 tested speed tiers that moved to a higher speed tier by the September 2013 testing period. Movement to a higher speed tier can occur in two ways: 1) a consumer can subscribe to a higher tier from the



same or competing ISP or 2) an ISP can upgrade service for all consumers within a specific service tier. In our tests of download speed, we added five new tiers above 30 Mbps from the last testing period,<sup>20</sup> and our tests of upload performance included one additional offering above 8 Mbps.<sup>21</sup> In this Report, we find the average subscribed speed is now 21.2 Mbps, representing an average annualized speed increase of about 36 percent from the 15.6 Mbps average of 2012.

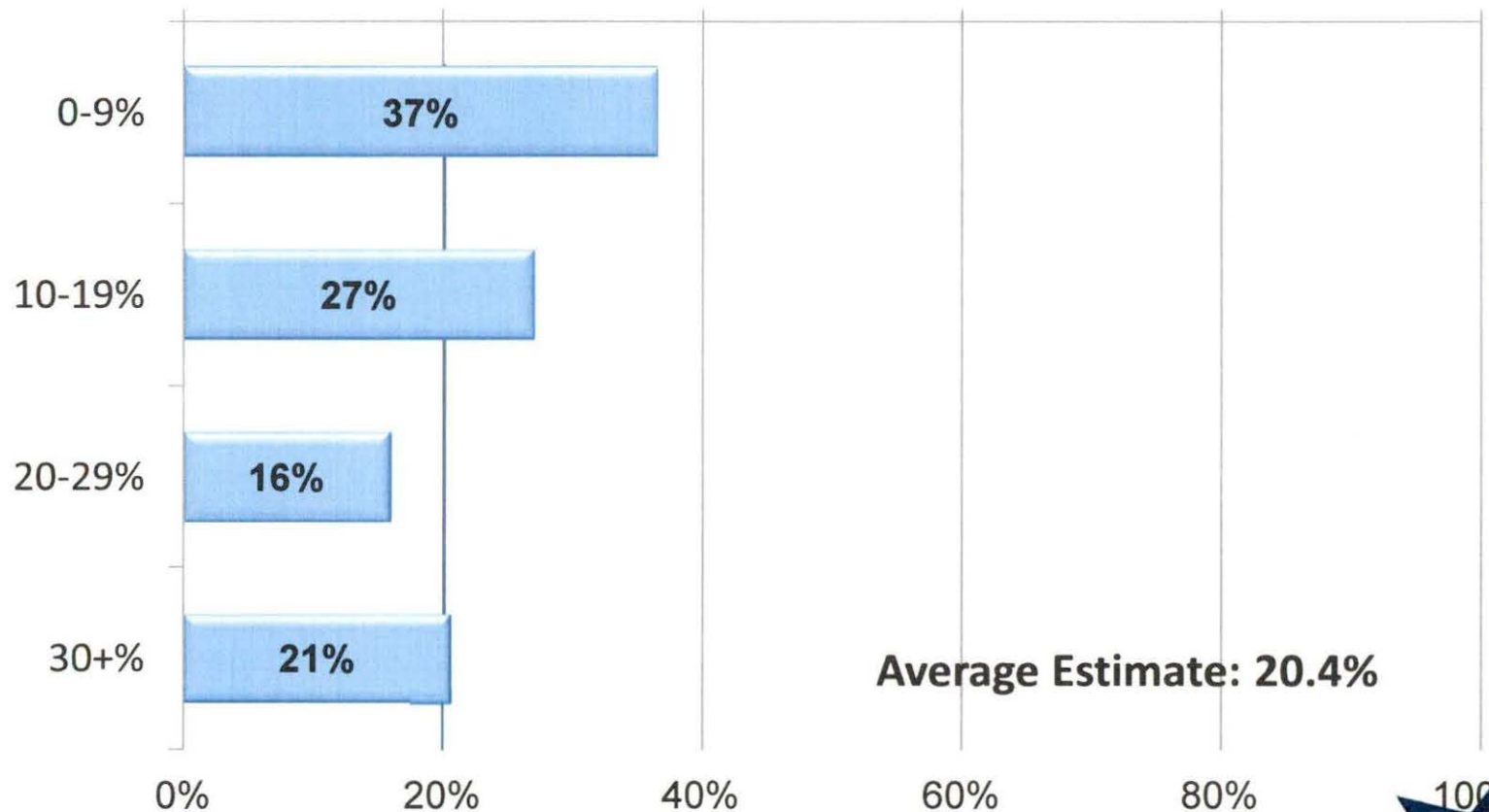
#### 4. Improvements in Speed are not Uniform Across Speed Tiers Tested



Our report focuses on the most popular speed tiers offered by an ISP- that is, the maximum speed used by a major percentage of an ISP's consumers. We note that a particular ISP may offer faster speed tiers either throughout their territory or in specific portions of their territory that are not as popular as the speed tiers we tested. However, as the Commission's goal is to advance high speed Internet access to all Americans, we believe highlighting the maximum speed *among the popular speed tiers*, is the most effective way to demonstrate the spread of high speed Internet access.

# FTTH Reduces Operations Costs

## Estimated Opex Savings among Those with Active FTTH Customers

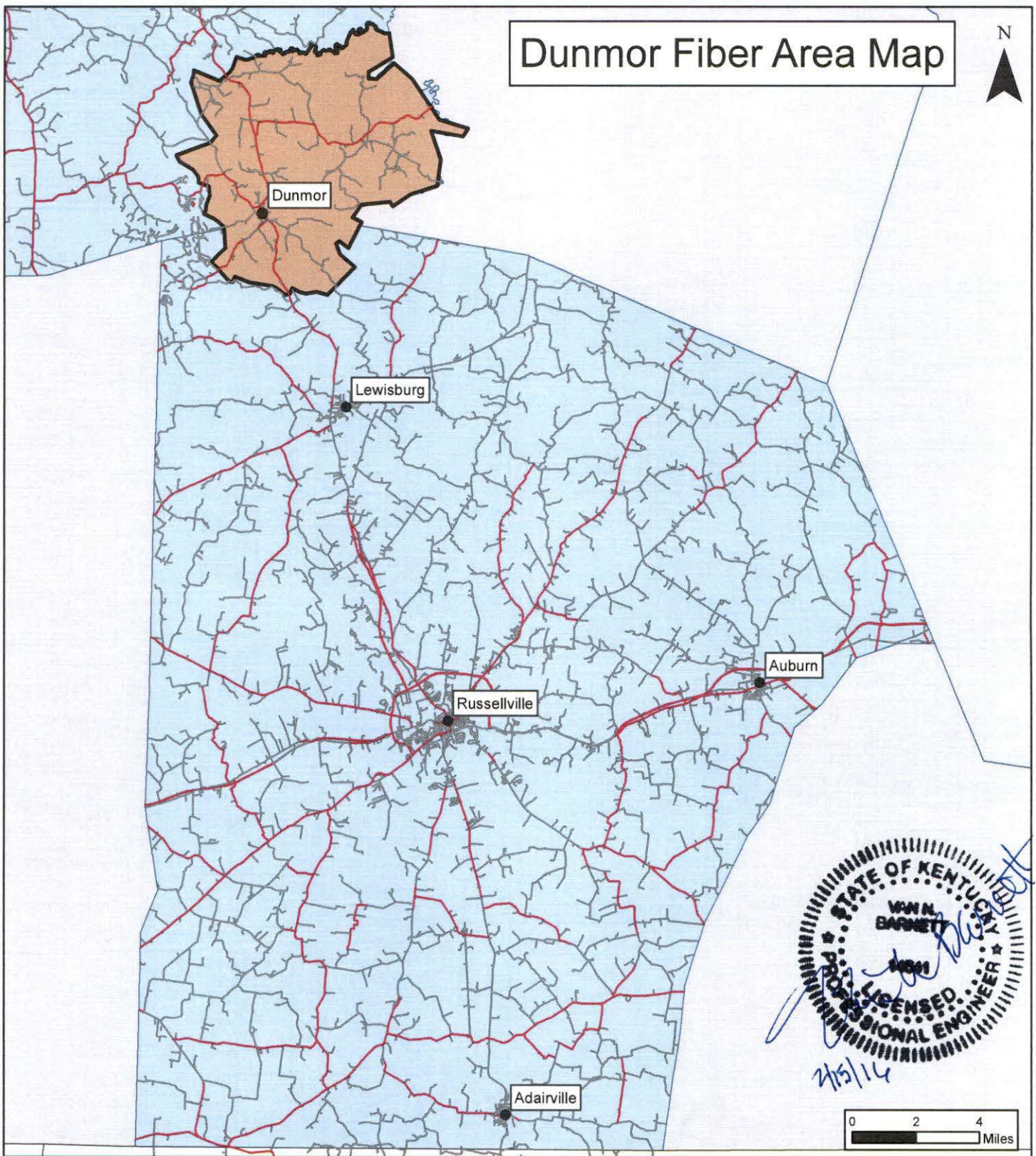


**Building Fiber-to-the-Home  
Communities Together**

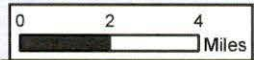




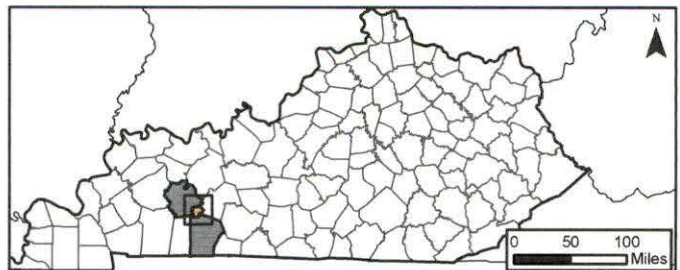
# Dunmor Fiber Area Map



STATE OF KENTUCKY  
W. H. BARNETT  
PROFESSIONAL ENGINEER  
2/15/14



**LOGAN**  
TELEPHONE COOPERATIVE



SHEET  
1 OF 2

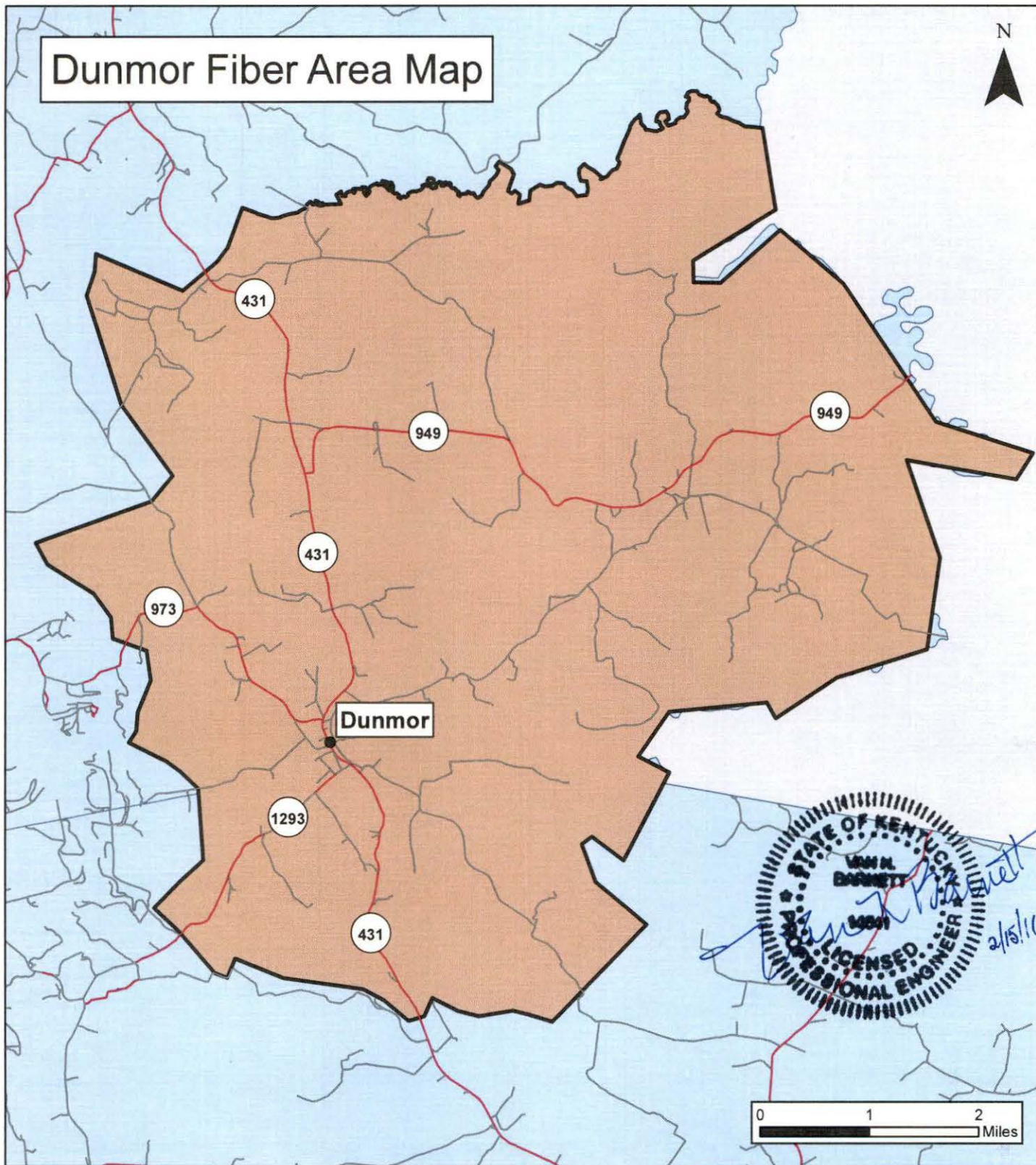
CPCN APPLICATION  
DUNMOR

Coordinate System:  
NAD 1983  
Kentucky South FIPS  
Created by:  
Natasha Patterson, 2016



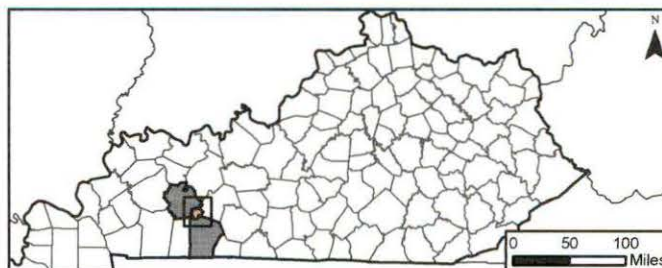
# Dunmor Fiber Area Map

N



STATE OF KENTUCKY  
WM. H. BARNETT  
2/15/16  
LICENSED PROFESSIONAL ENGINEER

**LOGAN**  
TELEPHONE COOPERATIVE



SHEET  
2 OF 2

CPCN APPLICATION  
DUNMOR

Coordinate System:  
NAD 1983  
Kentucky South FIPS  
Created by:  
Natasha Patterson, 2016



## Logan Telephone Cooperative

### 2016 Dunmor Plans and Specifications

Logan Telephone Cooperative (Logan) plans to construct Fiber-To-The-Premise (FTTP) facilities to 612 premises in and around the City of Dunmor in the Dunmor exchange of Logan and Muhlenberg Counties. Plans are to deploy this active FTTP system to increase the broadband speeds available to customers. This construction will afford this portion of Logan and Muhlenberg Counties with State-of-the-Art broadband facilities.

There are no other communications provider in this area.

Logan's fiber optic cable will be placed between the Dunmor Central Office and each inhabitable residential premise and each business premise on the proposed routes. This cable will be direct buried at a depth of 30 inches. The interface between the buried main line cable and the subscriber cable will be either in a below ground level handhole or an above ground pedestal.

In addition to the fiber-optic cable facilities, Logan will place electronic equipment in the Dunmor Central Office to transport the optical signal from the central office to each premise. Calix will be the primary manufacturer for this equipment. This optical signal will be converted at the customer's premise to an electrical signal in Internet Protocol (IP) format for service to the customer's computer or network device.

Construction will be performed under Rural Utilities Service (RUS) specifications for direct buried plant and for customer premise cable. Construction is expected to start in June and complete Spring of 2017. All required highway permits will be obtained prior to construction start. The majority of this construction will be on private right-of-way.





**LOGAN TELEPHONE COOPERATIVE  
DUNMOR FTTP  
TOTAL CONSTRUCTION ESTIMATE**

<b>Drops</b>	<b>612</b>
<b>Route Miles</b>	<b>78.88</b>
<b>Drop Miles</b>	<b>32.22</b>
<b>Total Miles</b>	<b>111.10</b>

<b>OSP Estimate</b>	<b>\$6,172,287</b>
<b>Electronics Estimate</b>	<b>\$366,190</b>
<b>Engineering Estimate</b>	<b>\$941,535</b>
<b>Total Estimate</b>	<b><u>\$7,480,012</u></b>