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June 17, 2015

**Via ECFS**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

**Re: EX PARTE NOTICE**

**WC Docket No. 10-90, *Connect America Fund***

Dear Ms. Dortch:

On June 15, 2015, Shawn Hanson, CEO, and Kelley Wells, Regulatory Affairs Manager, of Panhandle Telephone Cooperative, Inc. (“PTCI”), along with Chad Duval of Moss Adams LLP, and the undersigned (collectively, the “PTCI Representatives”) met with Carol Mattey, Alex Minard, and Suzanne Yellen of the Federal Communications Commission’s (“FCC” or “Commission”) Wireline Competition Bureau (“Bureau”), and Daniel Alvarez, wireline legal advisor to FCC Chairman Tom Wheeler. During the meeting, the PTCI Representatives directed Bureau staff to a flaw in the FCC’s Alternative Connect America Cost Model (“A-CAM”) that negatively impacts the amount of high-cost support that is calculated for PTCI. The PTCI Representatives also discussed the voluntary path to cost model support that is currently being considered by the Commission and various other issues related to long-term universal service reform for rate-of-return incumbent local exchange carriers (“ILECs”). The attached presentation was distributed to meeting attendees.

***PTCI’s Service Territory and Fixed Wireless Broadband Service***

To begin the meeting, the PTCI Representatives described the characteristics of PTCI’s 6,327 square mile ILEC service area which encompasses the entire panhandle region of Oklahoma.<sup>1</sup> The three counties that make up PTCI’s service area – Cimarron, Texas, and Beaver – are considered high-cost and each generally has a low population density. Cimarron County has a population density of .74 persons per square mile, which, if it were located in Alaska, would rank it roughly 12 - 15 out of 29 Alaska counties in terms of population density.<sup>2</sup>

<sup>1</sup> PTCI also offers broadband and voice services on a competitive basis through a wholly-owned subsidiary in parts of the Texas panhandle.

<sup>2</sup> See Attachment, Alaska Population Density County Rank.

The PTCI Representatives explained that PTCI provides broadband Internet access service to residential and business customers using a number of different technologies: traditional copper plant, fiber, co-axial cable (cable modem service), and fixed wireless. They further explained that over 900 of PTCI's broadband subscribers are served via fixed wireless, which utilizes PTCI's 700 MHz licensed spectrum. These subscribers are all located outside of towns or population centers. Wireless local loop technology is used to provide voice service to subscribers that are served by fixed wireless. PTCI began deploying its fixed wireless service in 2012 in order to meet the Commission's minimum broadband speeds of 4 Mbps downstream and 1 Mbps upstream. However, Mr. Hanson stressed that PTCI has always viewed its fixed wireless service as an "interim solution." Mr. Hanson stated that PTCI is very supportive of the decision to base the A-CAM's modeled broadband network on a "green-field" fiber to the premise (FTTP) network.<sup>3</sup>

In response to a question from Bureau staff, the PTCI Representatives discussed PTCI's costs that are incurred from providing fixed wireless broadband service. These costs include purchasing spectrum at auction, complying with FCC spectrum licensing requirements, maintaining tower sites, deploying fiber connections to tower sites, and purchasing and maintaining radios and other necessary equipment. While these costs may not be equal to the overall cost of deploying a fiber network, they are significant. Furthermore, the costs of deploying fixed wireless broadband service are potentially higher than fiber costs when the service is deployed in an area that has very little population density coupled with topography that impedes line of sight propagation, such as northwest Cimarron County.

The PTCI Representatives also explained that PTCI offers its fixed wireless broadband service as an ILEC, rather than through a subsidiary. PTCI reports its fixed wireless broadband service and wireless local loop on FCC Form 477 as services that are being provided through the ILEC.

### ***The A-CAM Incorrectly Disqualifies 2,377 Census Blocks in PTCI's Service Area***

The PTCI Representatives then directed Bureau staff to a major flaw in the A-CAM and described its negative impact on PTCI. Specifically, the PTCI Representatives explained that the FCC's A-CAM defines PTCI's fixed wireless broadband and wireless local loop service as service that is being provided by a qualifying competitor. As a result, the A-CAM disqualifies 2,377 census blocks and 5,909 locations in PTCI's service area from being eligible to receive model support. PTCI then recounted the laborious process that it endured to determine how and why the A-CAM erroneously declares the 2,377 census blocks as ineligible for support.

As it currently stands, the A-CAM is unable to identify competitive carriers that qualify as unsubsidized competitors within PTCI's service area (or within any ILEC's service area). However, the A-CAM is able to provide a list of service providers that *are not* qualifying competitors. Thus, in order for PTCI to determine which, if any, carriers meet the criteria of a

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<sup>3</sup> The PTCI Representatives noted their support for the use of Active Ethernet in rural areas instead of a Gigabit-Passive-Optical-Network (GPON) because GPON is generally limited to a distance of 10-20 km from the Central Office or remote, while Active Ethernet can be deployed up to 80 km (4 times the distance) from its serving location. *See* Attachment, Active Ethernet -Vs- GPON.

qualifying competitor within PTCI's service area, PTCI had to search for broadband providers that offer 10/1 Mbps or greater broadband service using the National Broadband Map. PTCI then had to determine whether those providers also offer voice service in addition to broadband. Ultimately, PTCI was unable to successfully identify any qualifying competitors within its service area. Through process of elimination, PTCI determined that the A-CAM incorrectly identifies PTCI's own fixed wireless broadband service as service that is being provided by a qualifying competitor.

### *The Need for a "Backstop" to Address A-CAM Flaws*

Bureau staff was receptive to the concerns of the PTCI Representatives. Bureau staff repeatedly stated that the A-CAM is not finished, and explained that there will be subsequent versions which should address the flaw identified by the PTCI Representatives. The PTCI Representatives thanked the Bureau for pledging to ensure that this correction is made before the final version of the A-CAM is released. However, the PTCI Representatives urged the Bureau to implement a "backstop" to ensure that any remaining errors can be properly addressed before the release of the final version of the A-CAM.

In response, the Bureau expressed an overall lack of support for holding an A-CAM challenge process because it would be time consuming and administratively burdensome. The Bureau stated that it was very difficult to adjudicate challenges that were made during the Connect America Fund ("CAF") Phase II challenge process.<sup>4</sup> For example, the Bureau stated that for many of the challenges, each opposing party submitted a sworn statement directly contradicting what the other party claimed. The Bureau asked the PTCI Representatives what they thought an A-CAM challenge process should look like, and asked whether they could articulate a less burdensome process than what was used for CAF Phase II.

The PTCI Representatives stated that they are sympathetic to concerns that a "full-blown" challenge process could be administratively burdensome and time-consuming. But, the PTCI Representatives argued that at the very least, there should be a process for an ILEC to address any instances where it believes census blocks within its service area have been incorrectly classified as served by a qualifying competitor. Implementing an A-CAM challenge process that is limited to served-to-unserved challenges would be much less burdensome, and would provide a backstop for the type of flaw that has been identified by PTCI.

The PTCI Representatives also stated that without a process to address lingering errors, there is a risk that the A-CAM could incorrectly calculate support for many rate-of-return ILECs. Because of the zero-sum nature of the strict high-cost budget, support that is distributed to carriers pursuant to the A-CAM could affect support amounts for carriers that elect to remain on a modified "legacy" support system, and vice versa. Bureau staff confirmed that the Connect America Fund ("CAF") Reserve could be used to address "overages" in the budget, up to a point. The PTCI Representatives also questioned whether there is a possibility that a single error within

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<sup>4</sup> The CAF Phase II challenge process lasted nine months and saw the Bureau adjudicate the eligibility of nearly 180,000 census blocks. Challengers made a *prima facie* case that the status of 95,093 of those census blocks should be changed, to which replies were filed. See *Connect America Fund*, WC Docket No. 10-90, *Connect America Phase II Challenge Process*, WC Docket No. 14-93, Order, DA 15-383 (Mar. 30, 2015 – Erratum issued Apr. 13, 2015).

the model that causes the A-CAM to incorrectly calculate a single ILEC's annual support amount could have a domino effect on every other ILECs' support amounts.

*Voluntary Path to Model Based Support*

Bureau staff asked whether PTCI would consider moving to model-based support if the census blocks in PTCI's service area were correctly deemed eligible for support. Mr. Hanson discussed the many factors that PTCI would have to examine when considering whether to move to model-based support. Mr. Hanson noted that the model would provide a definitive level of support over at least a 10-year period, and explained how long-term certainty makes it easy to plan network investment. The PTCI Representatives and Bureau staff also discussed whether the certainty provided by the model would be enough of an incentive for carriers to move to the model even if it means experiencing a slight decrease in annual universal service support. Mr. Hanson noted that under the current best-case scenario, the A-CAM would still reduce PTCI's annual support by over \$2 million after the fixed wireless competition issue is resolved, which is a reduction that is not manageable.

Additionally, the PTCI Representatives inquired about the use of a Remote Areas Fund ("RAF") to help provide support for broadband service provided to extremely high cost locations, and asked about the status of the CAF Reserve funds and how the Commission intends to use them. In response, the Bureau stated that it is not currently considering an RAF in rate-of-return areas and provided no insight on future allocation of the CAF Reserve.<sup>5</sup>

Pursuant to Section 1.1206 of the FCC's rules, this ex parte is being filed electronically with the Commission using the electronic comment filing system.

Respectfully submitted,

*/s/ Anthony K. Veach*

By: \_\_\_\_\_

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*Counsel for PTCI*

Attachment  
cc (via Email):

Carol Matthey  
Alex Minard  
Suzanne Yellen  
Daniel Alvarez

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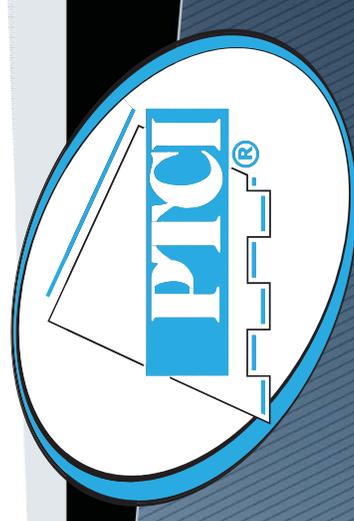
<sup>5</sup> The most recent information on the CAF Reserve, including the status of support components was released on May 1, 2015. *See* Universal Service Administrative Company, Federal Universal Service Support Mechanisms Fund Size, Projections for Third Quarter 2015, CC Docket No. 96-45, p. 9-10 (May 1, 2015).

# Panhandle Telephone Cooperative, Inc. (PTCI)

A-CAM

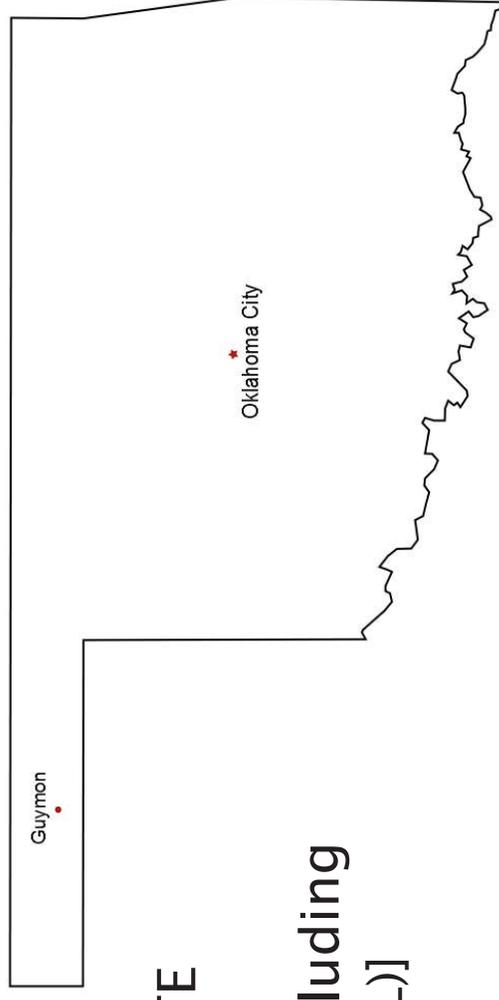
Ex Parte

June 15, 2015



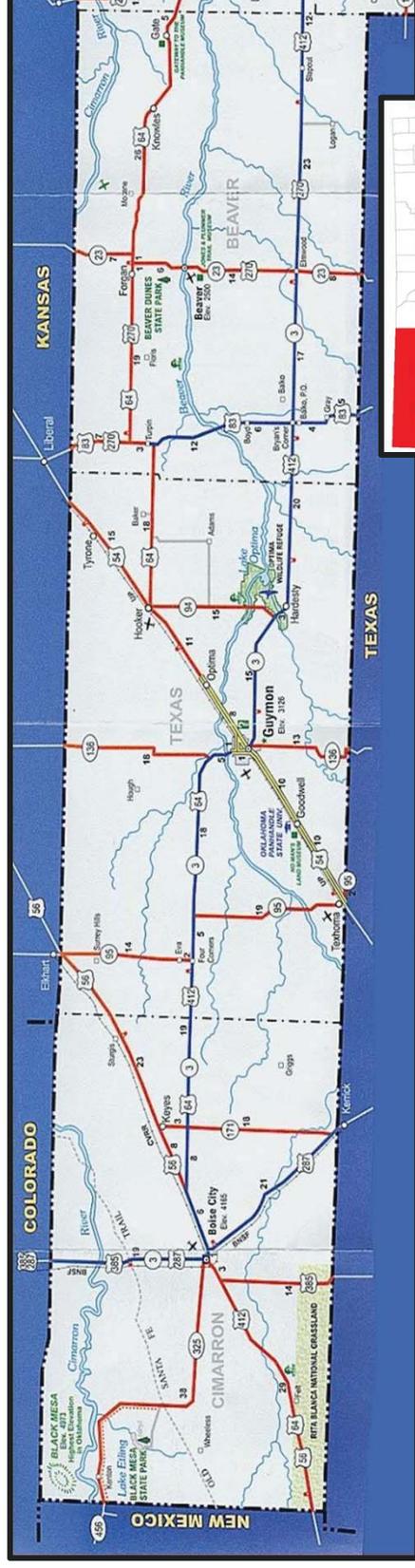
# PTCI Introduction

- ▶ Established in 1955
- ▶ Headquarters in Guymon, OK
  - ILEC in Oklahoma Panhandle
  - CLEC in Texas Panhandle
- ▶ Multiple Service Provider
  - Broadband (BB)
    - Wired BB
    - Fixed Wireless BB – LTE
  - Cellular
  - Landline Telephone [including Wireless Local Loop (WLL)]
  - Video



# PTCI Introduction

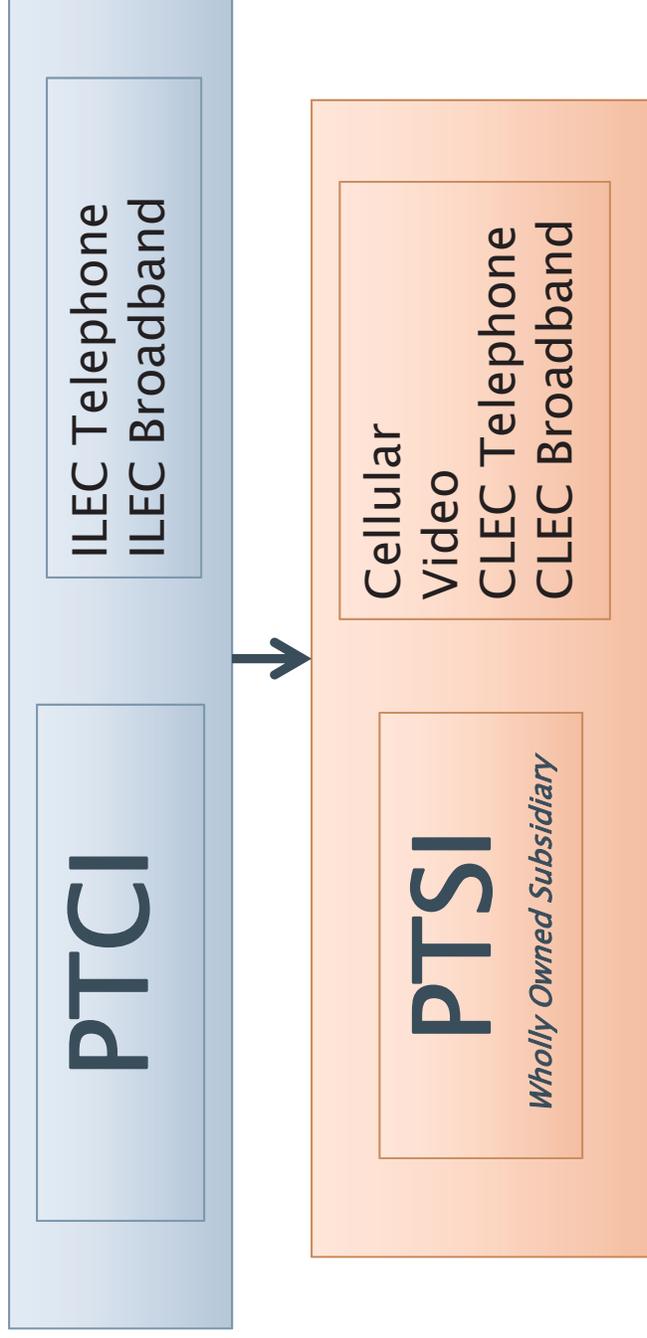
- ▶ Panhandle Telephone Cooperative, Inc. (PTCI)
  - Serving Oklahoma Panhandle area for 60 years
    - Cimarron, Texas & Beaver Counties (plus minor overlap into TX, NM & CO)
      - ▶ 6327 square miles
      - ▶ Per A-CAM: # of Census Blocks: 4,247; Number of Locations: 16,268
      - ▶ Larger Cities/Towns: Beaver, Boise City, Goodwell, Guymon, Guymon, Hardesty, Hooker, Keyes, Turpin, Tyrone



# Panhandle Census Statistics

	<u>Population</u>	<u>Area (mi<sup>2</sup>)</u>	<u>Population Density</u>
<b>Cimarron County</b>			
TOTAL	1841	2475	0.743838 people per mi <sup>2</sup>
Keyes	324	0.4	
Boise City	1266	1.3	
Felt	93	0.53	
<i>w/o population centers</i>	<i>158</i>	<i>2472.77</i>	<i>0.063896 people per mi<sup>2</sup></i>
<b>Texas County</b>			
TOTAL	20640	2049	10.07321 people per mi <sup>2</sup>
Guymon	11442	7.3	
Hooker	1918	0.9	
Tyrone	762	0.4	
Hardesty	212	0.2	
Optima	356	0.4	
Texhoma	926	0.6	
<i>w/o population centers</i>	<i>5024</i>	<i>2039.2</i>	<i>2.463711 people per mi<sup>2</sup></i>
<b>Beaver County</b>			
TOTAL	5636	1818	3.10011 people per mi <sup>2</sup>
Gate	93	0.3	
Knowles	11	0.2	
Forgan	547	0.4	
Beaver	1515	1.2	
Turpin	467	1	
<i>w/o population centers</i>	<i>3003</i>	<i>1814.9</i>	<i>1.654637 people per mi<sup>2</sup></i>
<b>OKLAHOMA PANHANDLE</b>			
TOTAL	28117	6342	4.433459 people per mi <sup>2</sup>
<i>w/o Population Centers</i>	<i>8185</i>	<i>6326.87</i>	<i>1.293689 people per mi<sup>2</sup></i>

# PTCI's Structure



## ILEC BB Notes:

- All Retail BB imputes Wholesale DSL Rate
- Fixed Wireless BB includes WLL to provide voice
- Fixed Wireless BB meets 10/1 BB definition (current technology allows for 12/1)
- Fixed Wireless BB costs included in “legacy” support calculations
- Fixed Wireless BB reported by ILEC on Form 477

# PTCI's Total Subscriber Count

<b>POTS Subscribers</b>
<u>ILEC</u> 10,772
<u>CLEC</u> 3,404
<b>TOTAL</b> 14,176

<b>Wired Broadband Subscribers</b>
<u>ILEC</u> 7,019
<u>CLEC</u> 2,939
<b>TOTAL</b> 9,958

<b>Fixed Wireless Broadband Subscribers</b>
<u>ILEC</u> 914
<u>CLEC</u> 273
<b>TOTAL</b> 1,187

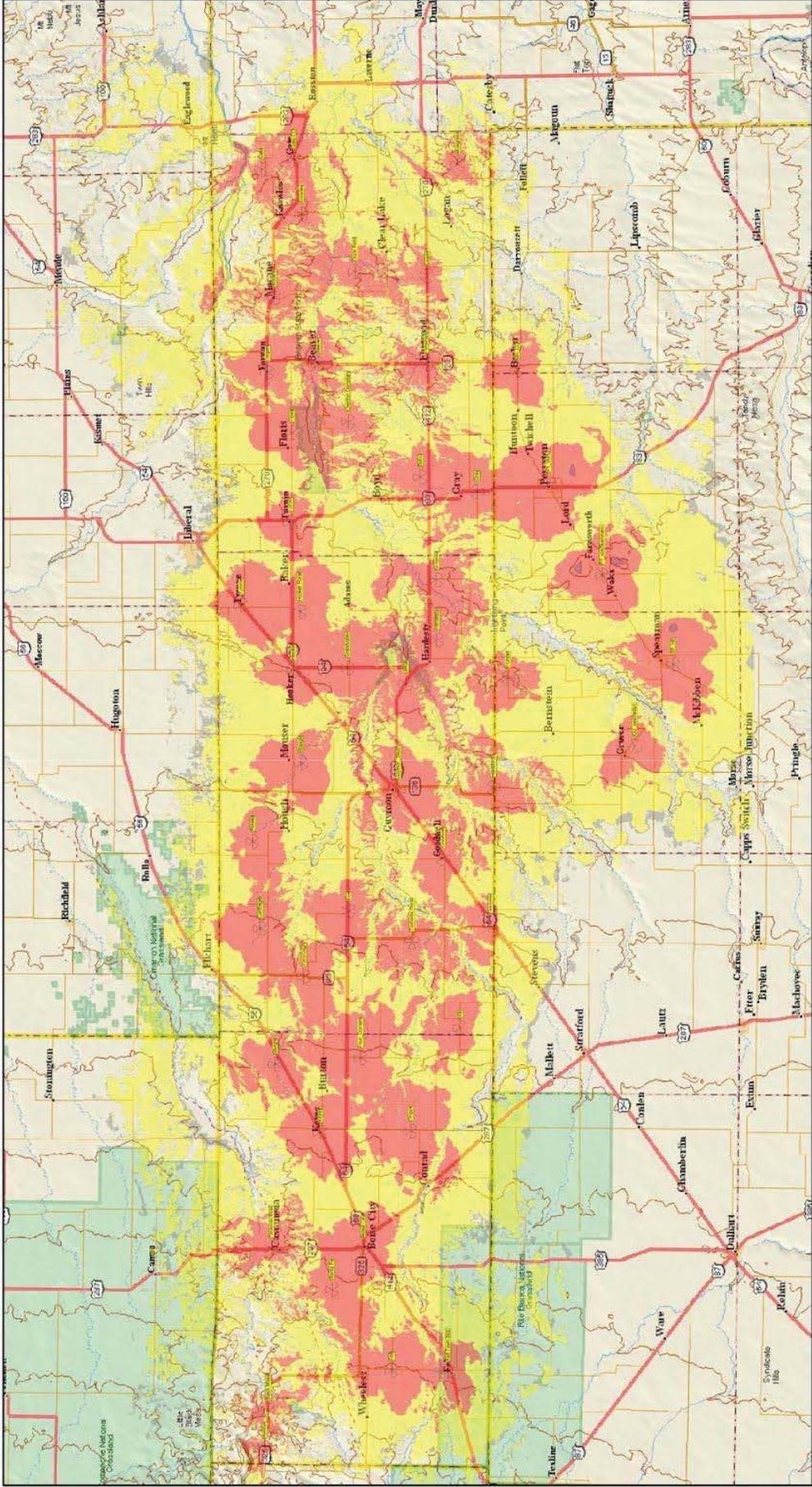
<b>Cellular Subscribers</b>
6,858

<b>Video Subscribers</b>
4,405

<b>Total Broadband Subscribers</b>
11,145

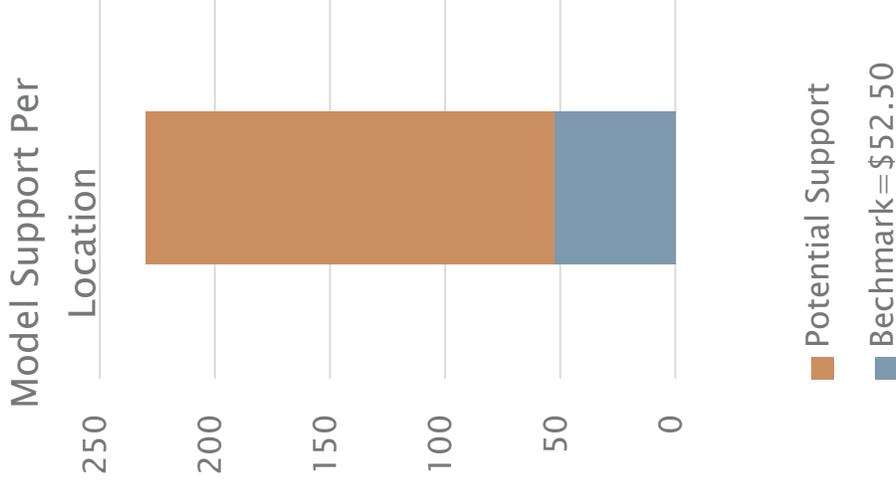
**RGU's = 36,584**

# PTCI's LTE Footprint



# Calculation of Support: A-CAM Proposal 1.3

- Assumes benchmark of \$52.50 per location for broadband service – costs over this benchmark may qualify for support (*disqualifies 2,073 census blocks and 12,059 locations*)
- Support amount is capped at \$230 per location
- Costs over \$230 per location are not fully supported; yet as a carrier of last resort, we have a requirement to serve extremely high cost areas (*affects 1,102 census blocks and 1,674 locations*)
- Support is disqualified for census blocks served by an unsubsidized cable or fixed wireless competitor
- Support budget constraint = \$1.625B (\$2.0B less 0.375B CAF/ICC)
- 362 of the 615 SAC's gaining support increase from 100% to over 1775%



# A-CAM Proposal 1.3 Results – Oklahoma

State	Rate of Return SAC	Total Rate of Return Locations	Total Number of Locations in Census Blocks Receiving Model-Based Funding	Total Number of Locations in Column F Census Blocks Lacking 10/1	Total Rate of Return Carrier Model-Based Support	Annual High-Cost Claims 2014 Total Support less CAF	ICC Support	Difference
OK	TOTAL	234,256	72,293	47,392	66,274,342	73,300,745		(7,026,403)

- 14 study areas are winners
- 20 study areas are losers
- Range of study area difference in model-based support vs current support: (\$8.4M) to \$16.9M or –93% to 304%

State	Rate of Return SAC	Total Rate of Return Locations	Total Number of Locations in Census Blocks Receiving Model-Based Funding	Total Number of Locations in Column F Census Blocks Lacking 10/1	Total Rate of Return Carrier Model-Based Support	Annual High-Cost Claims 2014 Total Support less CAF	ICC Support	Difference
OK	432016	16,268	328	272	642,320	9,031,995		(8,389,675)
OK	432018	62,252	17,283	13,817	22,483,993	5,565,534		16,918,459

# Reasons for 93% Reduction Under Current Version of A-CAM

- ▶ A-CAM views PTCI's Fixed Wireless BB & WLL from Form 477 as Competitive Overlap
- ▶ A-CAM disqualifies 2,378 census blocks and 5,911 locations as a result of the Competitive Overlap
- ▶ Difficult to find a list of WISPs that are unsubsidized for our service area



# Estimated Support if Competitive Overlap is Corrected

- ▶ Model based support would rise from \$0.6M to \$7.1M
- ▶ Still below Legacy Support due to Extremely High Cost census blocks (predominately Cimarron County)
- ▶ Cimarron County is less dense than more than approximately half of the counties in the State of Alaska
- ▶ PTCI would need to have some certainty regarding Remote Areas Fund dollars for extremely high cost census blocks before it could accept model based support based on per line cap of \$230

# Conclusions

- ▶ Largest flaw that prohibits PTCI consideration of A-CAM is Competitive Overlap by its own Fixed Wireless Broadband/WLL solution
- ▶ Some form of challenge process is required to weed out bogus Form 477 representations that may disqualify legitimate census blocks
- ▶ 10/1 Definition of minimum acceptable BB speed should not be the threshold for an unsubsidized competitor presence to disqualify support when the definition has changed frequently and will continue to increase rapidly
- ▶ June 30, 2014 Form 477 data is stale; Model based support should use the latest data
  - Form 477 should be modified to include regulated telco Wireless BB

# Other Flaws & Discrepancies

- ▶ Other Flaws
  - A-CAM Technology Assumptions
    - Active Ethernet vs. GPON
  - 67% of all study areas either up or down at least 50%
  - Middle Mile
- ▶ Discrepancies
  - USAC Disbursements
  - Census Block Counts



# Contact Information

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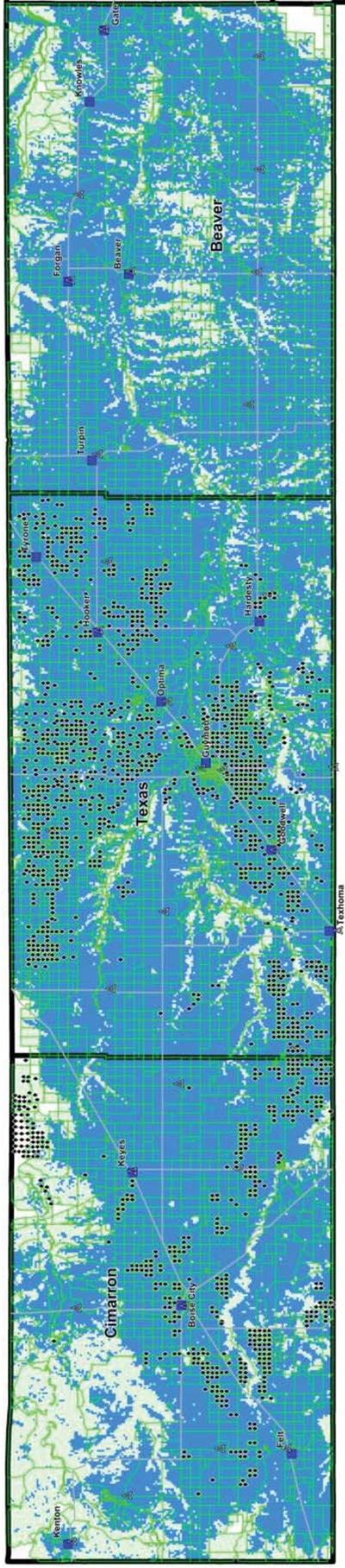
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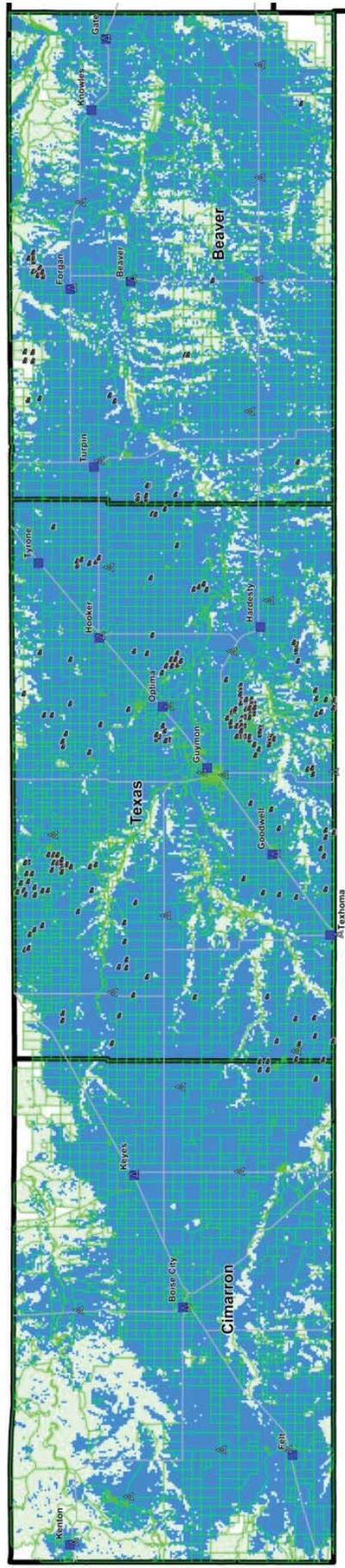
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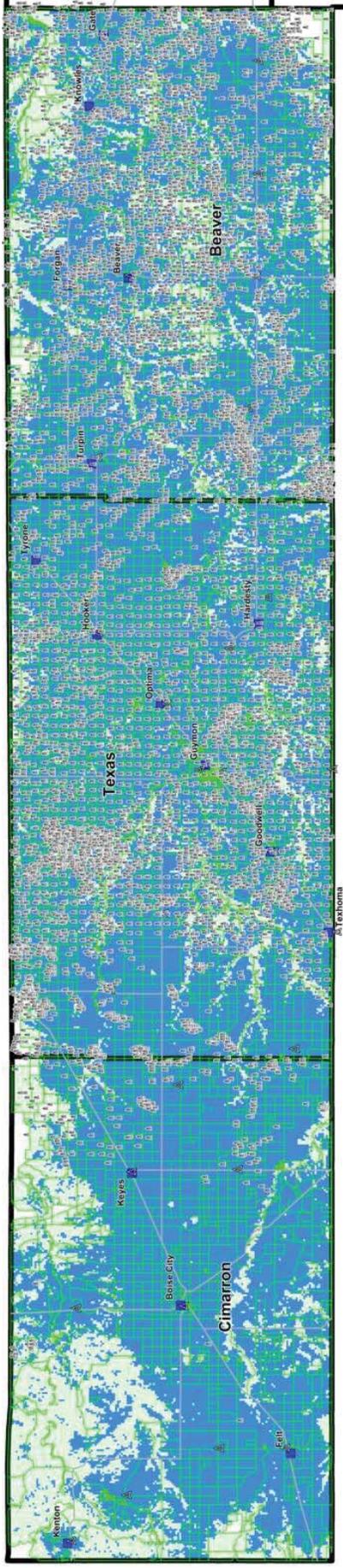
# Center Pivot Irrigation



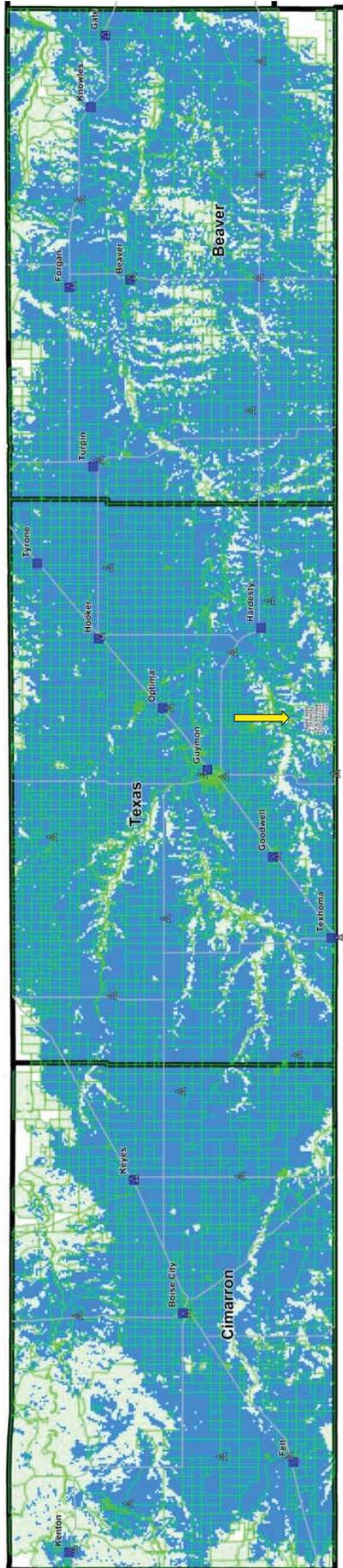
# Hog Farms



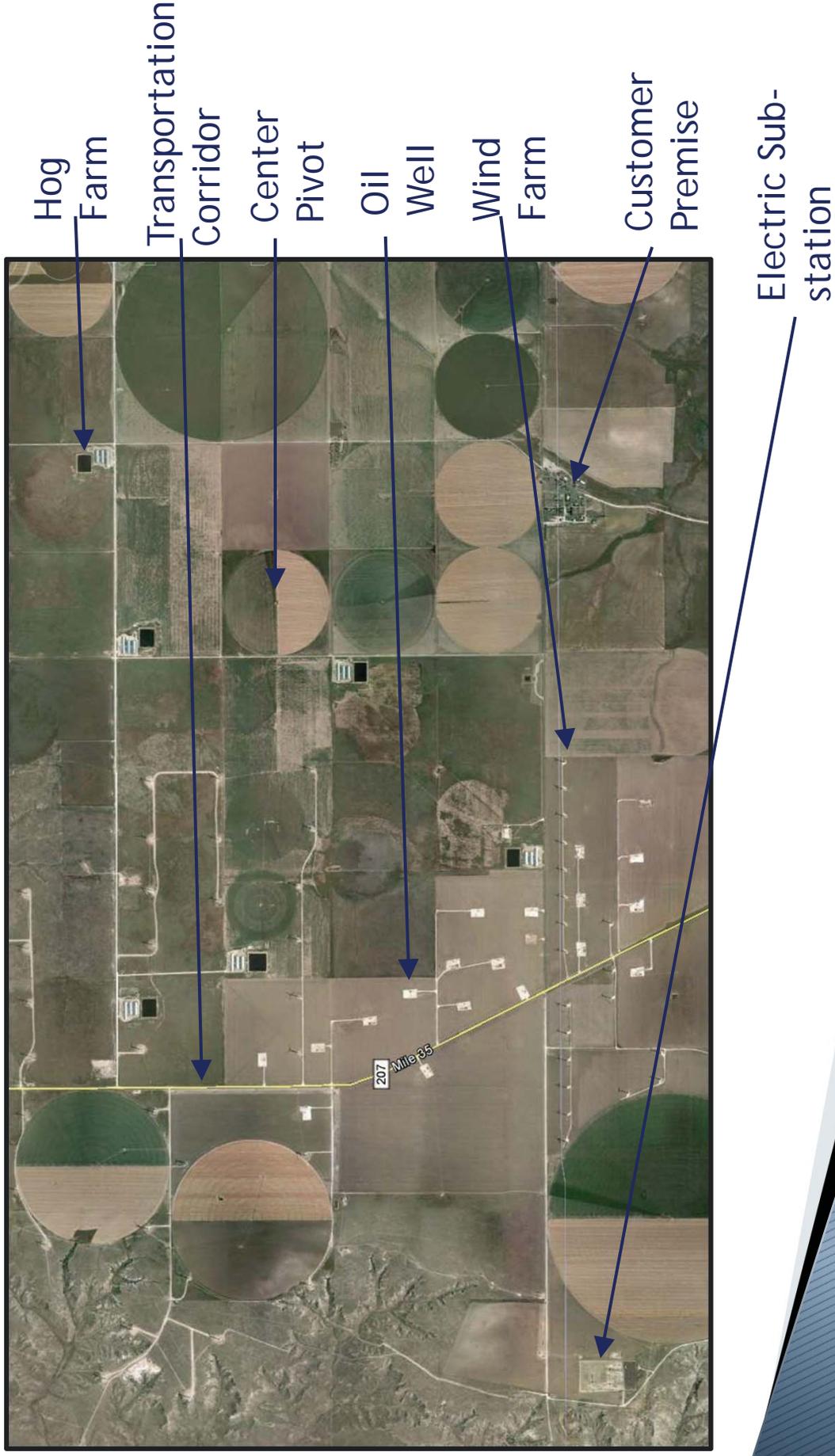
# Wells - Oil & Gas Industry



# Wind Farms



# Snap Shot of the Panhandle (approx 18.5 mi<sup>2</sup>)



# Alaska Population Density County Rank

Rank	<a href="#">Population Density</a>	County / Population
1.	148.8/sq mi	<a href="#">Anchorage, AK</a> / 291,826
2.	13.1/sq mi	<a href="#">Fairbanks North Star, AK</a> / 97,581
3.	9.6/sq mi	<a href="#">Juneau, AK</a> / 31,275
4.	3.5/sq mi	<a href="#">Matanuska Susitna, AK</a> / 88,995
5.	2.2/sq mi	<a href="#">Kenai Peninsula, AK</a> / 55,400
6.	2.1/sq mi	<a href="#">Skagway, AK</a> / 968
7.	2.0/sq mi	<a href="#">Ketchikan Gateway, AK</a> / 13,477
8.	1.8/sq mi	<a href="#">Sitka, AK</a> / 8,881
9.	1.1/sq mi	<a href="#">Kodiak Island, AK</a> / 13,592
10.	1.1/sq mi	<a href="#">Bristol Bay, AK</a> / 997
11.	0.9/sq mi	<a href="#">Haines, AK</a> / 2,508
12.	0.7/sq mi	<a href="#">Prince Of Wales Hyder, AK</a> / 5,559
13.	0.7/sq mi	<a href="#">Wrangell, AK</a> / 2,369
14.	0.7/sq mi	<a href="#">Petersburg, AK</a> / 3,815
15.	0.4/sq mi	<a href="#">Aleutians West, AK</a> / 5,561
16.	0.4/sq mi	<a href="#">Wade Hampton, AK</a> / 7,459
17.	0.4/sq mi	<a href="#">Bethel, AK</a> / 17,013
18.	0.3/sq mi	<a href="#">Nome, AK</a> / 9,492
19.	0.3/sq mi	<a href="#">Southeast Fairbanks, AK</a> / 7,029
20.	0.2/sq mi	<a href="#">Valdez Cordova, AK</a> / 9,636
21.	0.2/sq mi	<a href="#">Dillingham, AK</a> / 4,847
22.	0.2/sq mi	<a href="#">Aleutians East, AK</a> / 3,141

- 23. 0.2/sq mi [Hoonah Angoon, AK](#) / 2,150
- 24. 0.2/sq mi [Northwest Arctic, AK](#) / 7,523
- 25. 0.1/sq mi [Denali, AK](#) / 1,826
- 26. 0.1/sq mi [North Slope, AK](#) / 9,430
- 27. 0.1/sq mi [Yakutat, AK](#) / 662
- 28. 0.0/sq mi [Lake And Peninsula, AK](#) / 1,631
- 29. 0.0/sq mi [Yukon Koyukuk, AK](#) / 5,588

## Active Ethernet -Vs- GPON

Active Ethernet has dedicated bandwidth to each subscriber that can provide full bi-directional bandwidth. Gigabit-Passive-Optical-Network (GPON) uses a shared medium to supply bandwidth through a splitter in the field. It is our opinion, with the demands for bandwidth and its associated rapid growth, that Active Ethernet is the way to go on a new deployment of Fiber-to-the-Home (FTTH). A few things driving this growth are data, over the top (OTT) video, home-security, and IPTV (4K TV will need about 20Mb per channel, and 8K TV is in development).

With Active Ethernet there are no unmanaged splitters in the field. This allows trouble shooting on a one-to-one basis with the customer. Also, you can make changes to the plant and equipment without affecting more than one customer at a time. With GPON, changes to the plant can affect all subscribers whose connection passes through a splitter, which can be up to 64 customers at a time.

GPON will generally work out to a distance of 10-20km from the Central Office or remote (serving equipment), while Active Ethernet can be deployed up to 80km (4 times the distance) from its serving location. In a rural setting, such as the one PTCI operates in, the additional working distance from the serving location is essential to deploying FTTH (or Fiber-to-the-Farm) where, at times, there are great distances between customers in different directions from the serving equipment.

When building out a FTTH project, the cost of construction is not much more for Active Ethernet due to the fact that the price of fiber cable has come way down over the past few years. Also, the cost of constructing the fiber to each home (drop cable) is the same whether it is Active Ethernet or GPON. The difference is that where the splitters are usually placed for a GPON system, on an Active system you can deploy hardened FTTH equipment in the field.

With Active Ethernet, hardened electronics are deployed in the field, giving you the ability to build redundancy into your network, and helping you get closer to the goal of "five nines" (99.999%) of network reliability. This can be accomplished by placing the field electronics into a fiber ring network. This allows one side of the fiber ring cable that feeds the equipment to be cut, while the redundant path (ring) will take over, avoiding an outage. Repairs can be made without the customer ever knowing about the cut fiber. An additional advantage of Active Ethernet is that if a remote location fails, there are fewer customers affected due to the number of customers being served from the smaller locations.