July 1, 2019

***Ex Parte* Notice**

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

RE: *Connect America Fund*, WC Docket No. 10-90; *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10; *Universal Service Reform – Mobility Fund*, WT Docket No. 10-208

Dear Ms. Dortch:

On Thursday, June 27, 2019, the undersigned on behalf of NTCA–The Rural Broadband Association ("NTCA"), and Kelley Wells, Regulatory Affairs Manager of Panhandle Telephone Cooperative, Inc. ("PTCI"), met separately with: (1) Jamie Susskind, chief of staff to Commissioner Brendan Carr; (2) Arielle Roth, wireline legal advisor to Commissioner Michael O'Rielly, and Chris McGillen, legal intern in Commissioner O'Rielly's office; (3) Preston Wise, special counsel to Chairman Ajit Pai; and (4) Randy Clarke, wireline legal advisor to Commissioner Geoffrey Starks, and Matt Tettelbach, legal intern in Commissioner Starks' office, to discuss broadband availability mapping. A copy of the presentation we distributed in each meeting is attached to this correspondence.

PTCI started each meeting by describing the very rural nature of the areas it serves, the significant presence of agribusiness and energy production locations in those areas, and its substantial efforts both to develop accurate maps for its own operations and to identify accurately coverage claimed by other service providers. We did not discuss the merits of any Mobility Fund matters or the status of that proceeding, but we reviewed generally how PTCI's experience with mapping in that context can be instructive moving forward in developing solutions for better mapping as the Federal Communications Commission (the "Commission") considers how to improve its broadband availability data collection processes. In particular, PTCI and NTCA discussed three "pillars" that should guide any attempt to develop better broadband maps in the future.

First, we observed that upfront standardization and careful definition are critical to ensuring "apples-to-apples" indications of what providers can truly make available and minimizing the prospect for errors and coverage disputes. We talked, for example, about how PTCI makes extensive efforts to ensure the validity of coverage identification for its own far-reaching rural fixed wireless operations – taking steps to ensure that its coverage claims reflect not just the ability to serve *any one* customer in an area at a given service level, but the ability to serve *every* customer

in that area if they all were to request service at that level. We also noted that more detailed standardization with respect to engineering assumptions and subscription ratios, particularly in the case of DSL or legacy cable modem services, wireless, and satellite technologies, would help greatly in minimizing disputes and developing more accurate maps; we explained how substantial burdens such as those faced by PTCI in raising challenges in the context of the Mobility Fund could be mitigated if better standards are prescribed upfront to identify more accurately spectrum-based coverage capabilities. We also highlighted the importance of taking into account the type of terrain, foliage, and other topographical features of a given area in identifying accurately the reach and coverage capabilities of a given service. We therefore encouraged the Commission to develop and prescribe very carefully designed engineering assumptions and standards that providers should be compelled to use in reporting their service capabilities and coverage.

Second, we discussed the need for greater granularity in the reporting of broadband availability – noting at the same time that, while related, granularity and accuracy are not the same thing and that distinct steps must be taken to address both concerns. Thus, in addition to the sort of standardization described above, we encouraged the Commission to act consistent with NTCA's recent advocacy to improve the granularity of broadband availability reporting and mapping. Specifically, NTCA has noted previously the benefits and useful balance of making immediate improvements to existing reporting structures through the use of shapefiles, while also taking steps to develop and implement a system that would provide greater granularity for identification of availability (or lack thereof) for individual addressable locations. *See Ex Parte* Letter from Michael R. Romano, Sr. Vice President, NTCA, to Marlene H. Dortch, Secretary, Commission, WC Dockets No. 10-90 and 11-10 (filed April 30, 2019). NTCA once again urged the Commission not to adopt an "either/or" approach to such improvements, but to plan for and then to take both near-term and longer-term steps in promoting a better sense of broadband availability and unavailability.

Third, we emphasized that, even if the Commission were to take the above-referenced steps to improve broadband availability maps, a validation and challenge process remains essential to ensure accuracy before decisions are made with respect to policy or funding. In particular, we observed that the measures noted above should help greatly to catch errors in reporting and narrow any disputes, disagreements, or challenges over whether broadband availability is overstated in any given area, but we also commented that these measures would still not ensure the ultimate accuracy of the reports submitted and the maps developed based upon them. Put another way, while prior challenge processes such as that employed in the Mobility Fund may have been burdensome, the Commission should not "throw the baby out with the bathwater" – it is incorrect to view the choices as either "a burdensome challenge process" or "no challenge process." Instead, if measures such as those referenced above are employed to improve the maps, a validation and challenge process can then be used just to focus on discrete areas where disputes or questions nonetheless remain, reducing greatly the burdens associated with prior challenge processes.

Thank you for your attention to this correspondence. Pursuant to Section 1.1206 of the Commission's rules, a copy of this letter is being filed via ECFS.

Sincerely,

/s/ *Michael R. Romano*
Michael R. Romano
Senior Vice President –
Industry Affairs & Business Development

Enclosure

cc: Preston Wise
Arielle Roth
Jamie Susskind
Randy Clarke
Chris McGillen
Matt Tettelbach

PTCI PRESENTATION TO THE FCC JUNE 27, 2019

Importance of Multiple Steps to Measure Broadband Availability Correctly

ABOUT OUR ILEC SERVING AREA

- 6,328 Square Miles
- 7,146 voice and voice/data lines
- 8,630 fixed broadband lines (7,646 wireline and 984 fixed wireless)
    - 4,430 data only
    - 6 different speed offerings ranging from 20/3 to 1 gig/100mb
- 8,168 mobile wireless
- Population densities lowest in the state
- Predominant industries are Oil & Gas, Wind, Agriculture, & Pork Processing (high speed data services essential to all)
    - 8,000 Oil & Gas Wells
    - Numerous Wind Farms
    - 2,300 Center Pivot Irrigation Systems
    - 19,000 hogs processed per day
- Major transportation corridor

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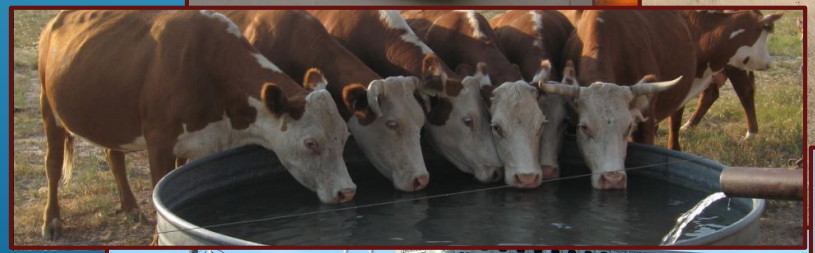
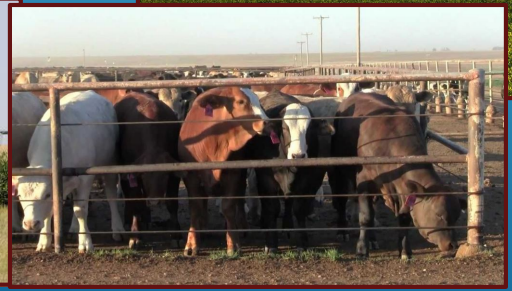




ABOUT OUR ILEC SERVING AREA (approx 18.5 mi²)

Hog Farm

Transportation Corridor

Center Pivot

Oil Well

Wind Farm

Customer Premise

Electric Substation

Voice and Data telecommunications services are Essential for the Oklahoma Panhandle

Lessons Learned from Mobility Fund Phase II

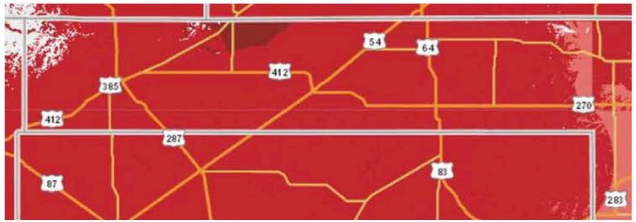
- Grossly overstated competitive coverage (>52%)

- Challenge process was essential, but incredible amount of work
  - 124,421 miles driven (not including miles on ATVs, on foot, on horseback, or by drone)
  - 6,720 employee hours
  - Over $800k total cost in 2018

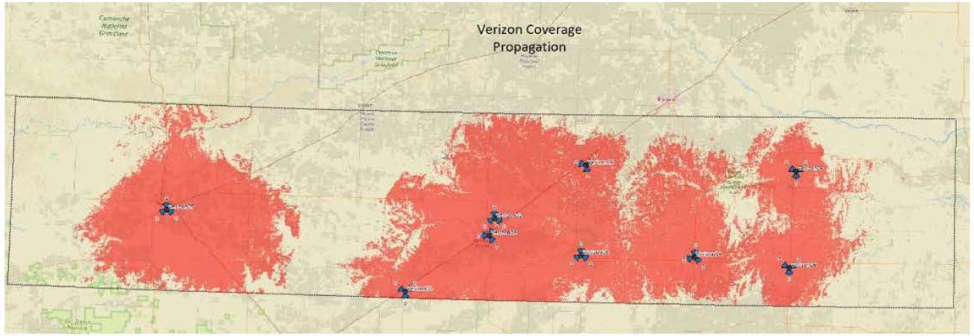
- Process revealed importance of "getting it right" on coverage reporting. Key takeaways:
  - Standardization is critical to limit disputes and need for challenges
  - Challenge process is critical as well to validate reports, hold providers accountable, and target support correctly – but standardization can help target challenges

Challenge issues with Mobility Fund Phase II

Overstated Coverage - VZW



Source:
https://www.verizonwireless.com/featured/better-matters/



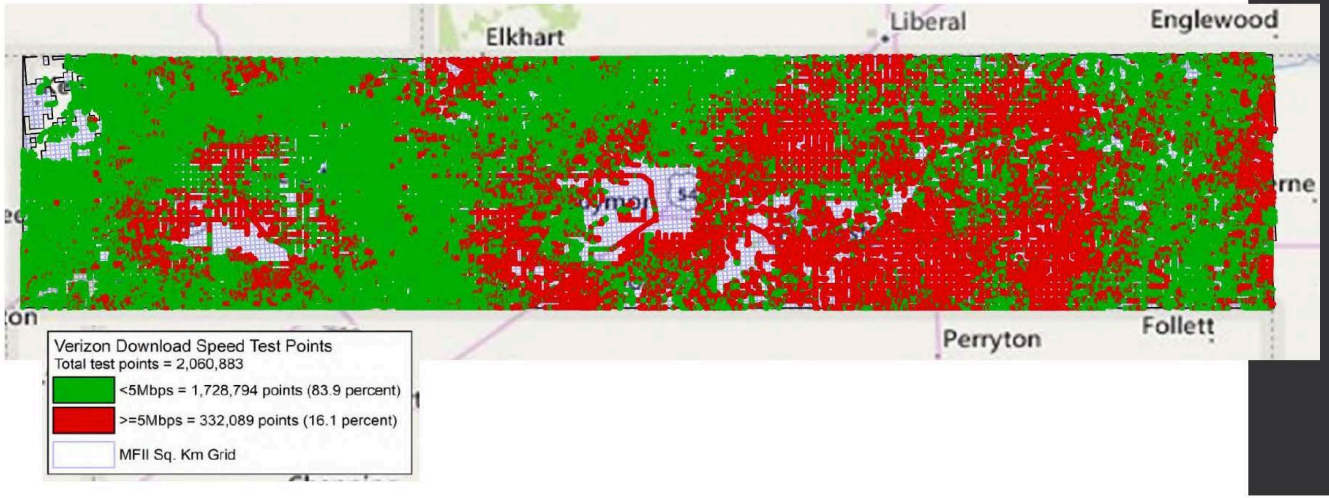
RF Engineer Estimate of VZW Coverage totals 47.82% of what VZW posts on their website (52.18% overstated).

Reported coverage looked oddly similar to "marketing maps"

Challenge issues with Mobility Fund Phase II

Overstated Coverage Confirmed – VZW

Oklahoma Panhandle Verizon MFII Drive Test Point Analysis



Key Takeaways to Inform Mapping Efforts Moving Forward

- Geocoding not very accurate in rural areas – lack of streets, addresses, etc.
  - Used Google Earth to "mark" each structure in serving area
  - Had to visually tie each lat and long to a "map #" in our records (or 911 service address - if available)
  - Out of 4 counties served, only one had 911 addresses (5 counties in the entire state of Oklahoma don't have 911 and we serve 3 of them)

- Variances in speeds depending on distance from C.O. and technology used (copper, fiber, coax, spectrum) make standardization critical

- Fixed wireless solutions had to be very carefully engineered in order to reach just previous 10/1 standard
  - E.g., no more than 40-50 locations could be served at maximum of 12/1
  - Need to consider tower location, antennae height, spectrum, # of locations in sector, terrain, etc.
  - Experience confirms challenge process still needed to capture accurately local conditions

Thank you!