

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
)
Inquiry Concerning Deployment of Advanced) GN Docket No. 20-269
Telecommunications Capability to All Americans)
In a Reasonable and Timely Fashion)

To: The Commission

**COMMENTS OF
THE NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION**

The National Rural Electric Cooperative Association (“NRECA”) hereby submits its Comments in response to the Sixteenth Broadband Deployment Report Notice of Inquiry in which the Commission is soliciting comment and information to assist in best determining the current state of broadband deployment and to assess whether advanced telecommunications capabilities are being deployed to all Americans in a reasonable and timely fashion,¹ focusing on the availability of advanced telecommunications capabilities in rural areas.

INTRODUCTION

NRECA is the national service organization for more than 900 not-for-profit rural electric cooperatives that provide electric energy to approximately 42 million people in 48 states or approximately 12 percent of electric customers, including 327 of the Nation's 353 "persistent poverty counties" (93%). Of the 42 million Americans served by cooperatives, an estimated 4 million live in persistent poverty counties. Rural electric cooperatives serve 88% of counties of the United States. Rural electric cooperatives were formed to provide safe, reliable electric service

¹ *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 20-269, Sixteenth Broadband Deployment Report Notice of Inquiry, FCC 20-112 (rel. Aug. 19, 2020) (*NOI*).

to their member-owners at the lowest reasonable cost. Rural electric cooperatives are dedicated to improving the communities in which they serve; management and staff of rural electric cooperatives are active in rural economic development efforts. Electric cooperatives are private, not-for-profit entities that are owned and governed by the members to whom they deliver electricity. Electric cooperatives are democratically governed and operate according to the seven Cooperative Principles.²

NRECA and its members are intensely interested in the deployment of advanced telecommunications capabilities within the rural communities and areas in which electric cooperatives provide electric service.³ In many of our members' communities, incumbent service providers do not offer fixed broadband service that meets the current fixed broadband benchmark of 25 Mbps download/3 Mbps upload (25/3 Mbps), prompting many electric cooperatives to undertake the investments and commit the resources to deploy fixed broadband services within these communities. More than 150 NRECA members provide fixed broadband service today, deploying fiber-based, fixed wireless or hybrid fiber and fixed wireless networks. Forty-two rural electric cooperatives participated in the Connect America Phase II auction ("CAF II Auction"),⁴ though a far greater number of NRECA members carefully assessed participation in the auction. In total, thirty-two co-ops won thirty-five CAF II bids in fifteen states amounting to \$254,720,764.50 over ten years to bring broadband to 86,716 locations in fifteen states.⁵ Others are participating in the ReConnect program at RUS and we anticipate many more electric cooperatives to be active in the RDOF reverse auction.

² The seven Cooperative Principles are: Voluntary and Open Membership, Democratic Member Control, Members' Economic Participation, Autonomy and Independence, Education, Training and Information, Cooperation Among Cooperatives, and Concern for Community.

³ NRECA and its members are focused on fixed broadband service.

⁴ See *Connect America Fund Phase II Auction Closes*, WC Docket No. 10-90, Public Notice, FCC 18-887, Attachment A (rel. Aug. 28, 2018) (*Auction 903 Results*).

⁵ *Id.*

COMMENTS

NRECA supports the Commission's continuing goal and efforts "to close the digital divide"⁶ and agrees that "continued forward progress toward universal deployment is imperative if all Americans are to enjoy the full promise of our economy." Countless communities served by electric cooperatives remain on the unserved/underserved side of the digital divide.

The deployment of fixed broadband service (at or above 25/3 Mbps) in rural communities would increase incomes, improve education, and provide better access to healthcare services.

However, federal dollars for broadband deployment should not primarily go to deploy the minimum definition of 25/3 but should prioritize providers that will build high-speed networks that will meet the growing bandwidth needs for years to come. The absence of robust fixed broadband services in rural communities imposes a high economic cost as reported in two studies - one assessing the nationwide impact and the second assessing the impact on the rural communities served by seven electric cooperatives in Indiana. The nationwide study performed by NRECA staff concluded that the lack of fixed broadband in about 6.3 million electric co-op households translates to more than \$68 billion in lost economic value measured over 20 years.⁷

These findings were echoed in a 2018 Purdue University study of the rural communities served by seven electric cooperatives in the State of Indiana.⁸ The report calculates an aggregate benefit of \$12.0 billion measured over twenty-years from fiber-based broadband deployment in these

⁶ *NOI* at para. 1 (reaffirming the conclusions of the Commission's 2020 Broadband Deployment Report, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 20-269).

⁷ NRECA, Business & Technology Report, *Unlocking the Value of Broadband for Electric Cooperative Consumer-Members*, at 3 (Sept. 2018) available at http://www.electric.coop/wp-content/uploads/2018/09/Unlocking-the-Value-of-Broadband-for-Co-op-Consumer-Members_Sept_2018.pdf (*NRECA Broadband Report*). The number of unserved co-op households has likely declined since release of the report.

⁸ Purdue University, *Research & Policy Insights: Estimation of the Net Benefits of Indiana Statewide Adoption of Rural Broadband* (Aug. 2018), available at <https://www.pcrd.purdue.edu/files/media/006-RPINsights-Indiana-Broadband-Study.pdf> (*Purdue Broadband Study*).

communities. These benefits are attributed to expanded telemedicine and education opportunities, consumer savings; increased farm income; general economic development; and increased state sales and income tax revenues. Taken as a whole, these benefits provide a 4:1 return on broadband infrastructure investment.⁹

The COVID-19 crisis has put the spotlight on the absolute and outright need for ubiquitous high-performing broadband. The data – and the people themselves – tell us that today’s rural America is not fully prepared for the connected state we are facing. And while there has been incremental progress over the last several years to help bridge the rural-urban digital divide, it has taken a global health and economic crisis to bring to light the real impact for the many Americans that are being left behind in the digital age.

1. Section 706 Reports Should Continue to Assess the Availability of Fixed and Mobile Broadband Separately & Affordability Data Should also be Collected

The Commission should continue to assess fixed and mobile broadband separately in determining whether advanced telecommunications capabilities are being deployed to all Americans in a reasonable and timely fashion.¹⁰ NRECA supports the Commission’s proposal to evaluate fixed and mobile services separately. On the other hand, NRECA believes the Commission’s *2020 Broadband Report* understated the major differences between these types of service in observing that “while subscribers of both mobile and fixed broadband service may substitute between the two when accessing certain uses, programs, and applications, the two services are not yet functional substitutes for all uses and customer groups.”¹¹ NRECA would generally agree with this finding. This distinction is especially relevant in rural communities who

⁹ *Purdue Broadband Study* at 12-15.

¹⁰ *NOI* at para. 7.d.

¹¹ *2020 Report*, para. 12.

are always last to receive any new wireless technology, if they ever do receive it. New technologies, such as 5G, will likely never be deployed to rural communities. If history is any guide, if 5G ever makes it to rural communities it will be after 6G or 7G are deployed in urban areas.

While fixed and mobile technologies may be substituted for accessing certain uses, programs and applications, a major difference between fixed and mobile broadband service are monthly usage limits. While mobile broadband service plans with “unlimited” data have been advertised by the four major wireless carriers since 2017,¹² these service plan data offerings are not actually unlimited. Under these plans, as monthly usage approaches certain levels (typically between 20 and 50GB), download speeds are throttled.¹³ This is not the case for high capacity fixed broadband services. For example, Verizon FiOS-branded promotions for triple play packages or standalone Internet offerings are offered with “no data cap[s].”¹⁴ The FCC itself is very aware of these limitations and included usage caps in its RDOF auction. For the RDOF Phase I Auction “Minimum” and “Baseline” performance tiers, the minimum monthly usage cap was the higher of (i) equal to or greater than 250 GB or (ii) the U.S. median speed; for the “Above

¹² Mike Dano, ‘Alarming’ Unlimited Data Usage: 31.4 GB Per Month and Rising, FierceWireless (Jan. 3, 2019) <https://www.fiercewireless.com/wireless/alarming-unlimited-data-usage-31-4-gb-per-month-and-rising> (last visited on August 26, 2020).

¹³ Mike Dano, *Editors Corner – 5G is Operators’ Chance to Correct Their ‘Unlimited’ Mistake*, FierceWireless (Aug. 28, 2018) <https://www.fiercewireless.com/5g/editor-s-corner-5g-operators-chance-to-correct-their-unlimited-mistake> (last visited August 26, 2020) (*Unlimited Plans Not Really Unlimited*) One of the most significant and egregious cases of throttling was widely reported just last month, when the Santa Clara County Central Fire Protection District suffered from heavy throttling until the department paid Verizon more, despite its subscription to an unlimited data plan. The County Fire Chief stated that during deployment to the Mendocino Complex Fire, the largest in California’s history, an incident response unit used to coordinate all local government resources had its data rates reduced to 1/200 or less than previous speeds. Jon Brodtkin, *Verizon Throttled Fire Department’s ‘Unlimited’ Data During Calif. Wildfire*, ARS Technica <https://arstechnica.com/tech-policy/2018/08/verizon-throttled-fire-departments-unlimited-data-during-calif-wildfire/> (last visited August 26, 2020).

¹⁴ *Verizon FIOS Deals and Promotions*, <https://broadbandnow.com/Verizon-Fios-deals> (last visited Sept. 12, 2018) (*Verizon-FiOS Deals*).

Baseline” and “Gigabit” tiers the usage limit was equal to or greater than 2 TBs.¹⁵ While some uses, programs or applications may not use a lot of bandwidth it can quickly reach the monthly limit, especially if more than one family member is sharing the device service plan. For a rural family, the difference is substantial and can have a significant impact on their Internet experience and ability to fully participate in the digital economy.

Pricing schemes vary significantly. Mobile pricing is device-specific, although pricing plans for multiple devices often offer noticeable discounts. Conversely, fixed broadband service pricing is not device specific. Individuals and households typically have multiple devices-- laptops, tablets, and even smartphones – that access the Internet via on-premise Wi-Fi routers or Ethernet cables enabled by fixed broadband services delivered to the premises. Moreover, in the age of COVID-19, bandwidth needs have increased as many Americans become full time telecommuters, children move to remote schooling, and many more Americans, especially in rural areas, rely on telehealth applications. Then there are remote work groups collaborating via the many new live video conference services or those working on complex engineering or database development tasks that are not likely to be conducted over smartphones.

These every day bandwidth needs – enhanced during the pandemic – are also not equally achievable on mobile and fixed networks for the same price. A home may need multiple mobile connections to be able to achieve what they could do with one fixed connection to the home due to speed and bandwidth constraints. This would potentially mean paying for multiple connections that all have data caps, an unworkable solution in many US homes.

The price of service must be a consideration of the Commission. From the consumer perspective, there is no difference between having no access to broadband service and having

¹⁵ *In the Matter of Rural Digital Opportunity Fund and Connect America Fund, Report and Order, FCC 20-5, at para. 39 (rel. Feb. 7, 2020).*

access but not being able to afford it. The result is the same and therefore affordability is a key component. NRECA member cooperatives are keenly aware of affordability issues since they collectively serve 93% of persistent poverty counties as identified by the U.S. Census Bureau. Therefore, pricing data should also be collected as part of the evaluation of whether broadband is being deployed in a timely manner.

2. NRECA Wholeheartedly Endorses the Commission’s Current and Planned Universal Service Initiatives

NRECA believes the CAF II Auction was an extremely positive development for rural broadband deployment.¹⁶ NRECA and its members have been very active in the proceeding to establish the RDOF and expect electric cooperatives to be even more active players than in CAF II. These auctions are forward-looking, as compared to the state-wide offers extended to the price cap carriers in 2015 for which the performance targets were set at 10 Mbps download/1Mbps upload, which did not even meet the FCC’s minimum definition of broadband. NRECA recommends that the Commission move forward as quickly as possible with the Digital Opportunity Data Collection proceeding so that it can schedule the RDOF Phase II auction to bring needed high-speed broadband above the current definition of 25/3 to additional communities.¹⁷

3. Form 477 Data Overstates the Availability of Broadband

¹⁶ Press Release “FCC Approves \$250,000,000 million for 35 Electric Cooperatives to Provide Rural Broadband,” August 28, 2018, <https://www.electric.coop/fcc-approves-220-million-33-electric-cooperatives-provide-rural-broadband/> (“Today’s auction results highlight the power of cooperative partnerships and collaboration as electric co-ops work to bring broadband to unserved communities in rural America,” said NRECA CEO Jim Matheson. “We thank the FCC for allowing electric co-ops to participate in this auction and look forward to building on this success moving forward. We are committed to continuing the rural broadband conversation and working with policymakers at the federal, state and local level on technology and funding solutions that will enrich the lives of rural American families and businesses.”)

¹⁷ *In the Matter of Establishing the Digital Opportunity Data Collection and Modernizing the FCC Form 477 Data Program*, Second Report and Order and Third Further Notice of Proposed Rulemaking, WC Docket No. 19-195 and 11-10, FCC 20-94 (Rel. July 17, 2020).

NRECA remains concerned that the Commission continues to utilize the FCC Form 477 broadband deployment data to assess the availability of fixed broadband services and concluding that broadband is being deployed within a reasonable and timely fashion.¹⁸ Rather, NRECA agrees with the National Telecommunications and Information Administration (“NTIA”) that the Form 477 data substantially overstates the availability of broadband, particularly to rural America.

A provider offering service to any homes or businesses in a Census block is instructed to report that block as served in its Form 477 filing, even though it may not offer broadband services throughout most of the block. This can lead to overstatements in the level of broadband availability, especially in rural areas where Census blocks are large.¹⁹

Unfortunately, this flaw in the Form 477 data (an entire census block is deemed served, if one location obtains 10/1 Mbps or greater service) was built into and provided the basis for including and excluding census blocks from the CAF II reverse auction and again for the RDOF Phase I auction.²⁰ Not surprisingly, the U.S. Government Accountability Office reached a similar conclusion regarding the overstatement of broadband available on Tribal lands.²¹ And data from Microsoft found that 162.8 million Americans are not accessing the internet at or above the FCC definition of broadband at 25/3 Mbps.²²

¹⁸ *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 19-285, 2020 Broadband Deployment Report, FCC 20-50, paras. 3 (2020) (2020 Report).

¹⁹ *Improving the Quality and Accuracy of Broadband Availability Data*, Request for Comment, Docket No. 180427421-8421-01, 83 Fed. Reg. 24747 (May 30, 2018). (*NTIA Request for Comment*).

²⁰ See NRECA Comments of the National Rural Electric Cooperative Association, *NTIA Request for Comment*, p.4 (from a “boots on the ground prospective,” NRECA members could not fathom that many areas within or adjacent to their electric service territory were deemed “served” per the FCC Form 477 data); *See also*, Sam Bloch, *The FCC says all of Iowa has access to broadband internet. Speed tests tell a different story*, New Food Economy, June 20, 2018 <https://newfoodeconomy.org/rural-iowa-broadband-data-fcc/> (last visited on September 13, 2018 (analysis of internet speeds in some rural Iowa counties were well below what the FCC’s broadband map released in December 2017 and updated in February 2018 (setting the eligible areas for CAF II competitive auction) foreclosing these areas from the CAF II auction.)

²¹ U.S. Gov’t Accountability Office, GAO-18-630, *Broadband Internet: FCC’s Data Overstate Access on Tribal Lands* at 14.

²² *It’s time for a new approach for mapping broadband data to better serve Americans*, John Kahan, Chief Data Analytics Officer, Microsoft, April 19, 2019. Available at: <https://blogs.microsoft.com/on-the-issues/2019/04/08/its-time-for-a-new-approach-for-mapping-broadband-data-to-better-serve-americans/>.

NRECA was pleased to see the Commission move forward with efforts to collect more granular data to better identify served and unserved communities.²³ It is imperative that a more accurate picture of the locations that have and lack access to broadband services be obtained before such broad declarations can be made accurately.

4. Update of the Definition of Broadband is Required

In an increasingly digital world, the fixed definition of broadband must keep pace with evolving technology, consumer choice and the marketplace. Relying on the five-year-old 25/3 Mbps definition is not appropriate, especially in the current pandemic which has forced a massive migration to remote work, distance learning and telehealth. The FCC itself recognizes this fact in the 2020 report stating, “The vast majority of Americans, surpassing 85% of the population in 2018, now have access to fixed terrestrial broadband service at 250/25 Mbps.”²⁴ If 85% of the population has access to fixed terrestrial broadband service at 250/25 Mbps it is difficult to comprehend why the Commission continues to maintain that the current dated definition of 25/3 Mbps is sufficient.

A recent report from OpenVault confirms that a reevaluation of the definition of broadband is overdue, especially in light of the impact of the pandemic on broadband. The report found that the pandemic continues to impact broadband usage. Specifically, it found that upstream traffic increased 5.3% in the second quarter of 2020 and is up 56% from the same quarter last year. The report also found consumer desire for faster tiers driven by multiple users and devices in homes due to the pandemic. It found that almost 5% of subscribers have gigabit or

²³ *In the Matter of Establishing the Digital Opportunity Data Collection and Modernizing the FCC Form 477 Data Program*, Second Report and Order and Third Further Notice of Proposed Rulemaking, WC Docket No. 19-195 and 11-10, FCC 20-94 (Rel. July 17, 2020).

²⁴ *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 19-285, 2020 Broadband Deployment Report, FCC 20-50, paras. 3 (2020) (2020 Report).

faster connections, a 133% year over year increase and an increase of 75% during the past six months. Sixty-one percent of subscribers have connections of 100 Mbps or faster, an increase of 27% over the past year. Anecdotally, electric cooperatives report that when offered broadband at speeds above 25/3 Mbps the majority of rural consumers subscribe to them.

The Commission's definition serves as the floor for the Universal Service Programs and keeping the definition artificially low often results in rural communities receiving substandard service compared to their urban counterparts. The 1996 Act calls on the Commission to ensure that comparable communications services are available at comparable rates in rural communities as are available to urban. The FCC's conclusion that 85% of Americans have access to 25/25 Mbps is a clear indicator that the current 25/3 Mbps is outdated and needs to be updated to reflect today's consumer demand and market conditions.

The Commission is to be commended for prioritizing bids to build higher speed networks in the RDOF Phase I auction but the existence of the minimum speed tier of 25/3 Mbps will result in federal dollars being spent for many rural locations to receive an already outdated level of broadband service. This is a concern for rural communities.

CONCLUSIONS

The social, educational and economic benefits of broadband in rural America are tangible and real. The current COVID-19 pandemic and resulting realignment of work, school and medical care to remote access has shone a spotlight on and augmented the inequities in today's society. Access to robust broadband, above the current minimum definition of 25/3 Mbps is needed to meet the growing bandwidth needs of all Americans especially in light of the pandemic. The Commission continues to make strides in supporting rural broadband deployment but the definition of broadband needs to be increased to keep pace with evolving

technology, consumer choice and the marketplace. The CAF II Auction was a major step forward and we expect Phase I of the RDOF to be another major step forward. To maintain this momentum, NRECA respectfully requests that the Commission improve broadband data collection and mapping in an expedited fashion and set a schedule for the RDOF Phase II auction. The concept that a census block should be deemed served in terms of fixed broadband service if one location in a census block is served is no longer viable as it overstates broadband availability; does not comport with reality; and, does not provide a rational basis for making USF support decisions and related policy determinations.

NRECA looks forward to working with the Commission to achieve our shared goal of ubiquitous high-speed broadband access to all Americans.

Respectfully submitted,

National Rural Electric Cooperative Association

/s/

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Dated: September 18, 2020