

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

In the Matter of)	
)	
Inquiry Concerning Deployment of Advanced)	GN Docket No. 22-270
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 Seventeenth 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 availability, the quality of the FCC’s available data, and the framework that it uses to make its finding under section 706. The Commission proposes to focus its inquiry on the universal service goals of section 706 -- universal deployment, affordability, adoption, availability – and of particular interest to rural consumers – equitable access to broadband throughout the United States.¹

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

¹ *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 22-270, Seventeenth Broadband Deployment Report Notice of Inquiry, FCC 20-112 (rel. Nov. 1, 2023) (NOI).

approximately 12 percent of electric customers, including 327 of the Nation's 353 "persistent poverty counties" (93%). Rural electric cooperatives were formed to provide safe, reliable electric service 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 they provide electric service.³ In many of NRECA 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. Over 200 NRECA members provide fixed broadband service today -- deploying fiber-based, fixed wireless or hybrid fiber and fixed wireless networks -- and another 100 to 200 are exploring the feasibility of deploying broadband. 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. Around one hundred and fifteen (115) electric cooperatives won RDOF bids securing more than \$1.1 billion dollars over ten years to deploy broadband to over 616,000 locations in 27 states. In the USDA Rural eConnectivity Program (the "ReConnect Program"),

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.

thirty-eight (38) cooperatives won more than \$427 million in 28 states. Rural co-ops continue to have an impact on broadband access in their communities.

COMMENTS

NRECA agrees that its high time for the Commission to “take a fresh look at the standards that it use(s) to determine what constitutes “advanced telecommunications capability.”⁴ We appreciate the opportunity to comment on what the appropriate standards should be for evaluating the physical deployment of fixed and mobile broadband service, and the Commission’s recognition that the benchmark for fixed and mobile broadband speeds must be increased. We support the Commission’s consistent goal of and efforts to close the digital divide, and agree that, especially considering the COVID-19 crisis, “never before has the critical importance of ensuring that all Americans have access to high-speed, affordable broadband been more evident.”⁵ The COVID-19 pandemic put the spotlight on the absolute and outright need for ubiquitous high-performing broadband access. 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.

To Achieve Adequate Levels of Bandwidth and Capabilities for All Americans, the Benchmark for Fixed Broadband Speeds Should Be 100/100 Mbps.

The Notice seeks comment on benchmarks to define advanced telecommunications capability for the purpose of evaluating the section 706 universal service goals for broadband.

⁴ *NOI* at para. 8.

⁵ *NOI* at para 1.

Specifically, and most notably to NRECA co-ops and its member-consumers, the Commission proposes to raise the download/upload speed benchmark for fixed broadband service to 100/20 Mbps, consistent with of the 2021 Infrastructure Investment and Jobs Act.⁶ We commend and support the Commission's proposal to finally update the definition of broadband. NRECA feels that increasing the existing benchmark of 25/3 Mbps to 100/20 Mbps is long overdue but nevertheless a constructive step forward. We also support the Commission's long-term goal of increasing the long-term benchmark to keep pace with consumer demand.

However, NRECA strongly believes that to currently meet the section 706 universal service goals -- universal deployment, affordability, adoption, and availability -- there is sufficient cause for the Commission to set a symmetrical speed benchmark of 100/100 Mbps now. Similarly, there is sufficient cause for the Commission to update its long-term goal to a symmetrical 1/1 Gbps benchmark.

NRECA electric cooperative members not only support this goal for universal service, but have sprung into action and taken the lead, providing essential broadband services to their unserved and underserved communities today, with the vast majority providing cutting-edge fiber networks capable of symmetrical gigabit service. For many of them, 100/100 Mbps is the lowest service tier they offer. All terrestrial broadband technologies being deployed today, whether it be fiber, coax, or fixed wireless architecture, have symmetrical 100 Mbps capability, making the standard technology-neutral. Only antiquated legacy technologies and platforms are unable to meet this standard; lowering the minimum broadband standard to accommodate old and outdated legacy networks is bad policy and will result in leaving communities behind.

⁶ *NOI* at para 10.

The success of electric cooperative broadband deployments to very high-cost areas prove that cutting edge broadband service is achievable in rural America, if providers are willing to build it. Achieving the goal of universal access to broadband throughout the United States does not mean that rural America must somehow resign themselves to becoming “second-class” broadband citizens, with significantly lower broadband speeds and capabilities than the rest of the country. As NRECA CEO Jim Matheson stated in his June 2023 testimony before the U.S. House of Representatives Committee on Agriculture in regard to federal broadband programs:

“[i]n many cases the discussions around rural access seem to focus on what is “good enough.” Broadband services should be equitable no matter where an individual chooses to live, and taxpayer dollars will be best spent supporting networks and technologies that can meet current and future needs, rather than investing in standards that are or soon will be obsolete.”⁷

The measure of progress toward universal deployment of broadband should be measured by whether the higher level of broadband service considered adequate for household needs is widely available throughout the country, including the more remote rural parts of the country. This measure of progress toward universal broadband deployment should be scalable, evolving over time to reflect what is now adequate, and what will in the future be deemed adequate. NRECA contends that while superior to the outdated, existing 25/3 Mbps standard, 100/20 Mbps proposal is inadequate to equitably serve the growing broadband needs of rural America. It is important to note that Congress and federal agencies, in their respective rules for broadband programs, have established 100/100 Mbps as a required speed standard. The U.S. Treasury

⁷ Testimony of the Honorable Jim Matheson before the United States House of Representatives Committee on Agriculture hearing on “Closing the Digital Divide in Rural America,” June 21, 2023.

Department’s final rule implementing the Coronavirus State and Local Fiscal Recovery Funds established under the 2021 American Rescue Plan Act established a standard of reliable 100/100 Mbps for the broadband projects it funds. Per the rule, “Treasury expects that this threshold will yield long-term benefits and allow networks to meet both pandemic-related and future needs.” The agency goes on later to state that “while a lower threshold may have resulted in lower near-term costs to build, it would have potentially constrained future utility from the infrastructure by producing infrastructure that would more quickly – potentially in the near-term – become obsolete and no longer meet household needs, potentially requiring sooner replacement and generally decreasing the return on investment.”⁸

Further, the Infrastructure Investment and Jobs Act authorized nearly one billion in funding for the ReConnect program at the U.S. Department of Agriculture and required that applicants deploy networks capable of delivering at least 100 Mbps symmetrical service.⁹ Despite the higher service requirements, demand for funding through the program far exceeded what was made available by Congress, signaling both the willingness and capability of providers to meet higher speed standards. NRECA not only agreed with the standards set out for both the Treasury and Agriculture programs, our electric co-op provider-recipients ably met and, in most cases, *exceeded* the symmetrical service standard.

Additionally, the Commission states in the Notice that in light of the pandemic, consumer broadband subscription patterns and usage trends indicate the increasing importance of upstream transmission speeds, citing OpenVault’s data finding that average household broadband usage

⁸ U.S. Department of the Treasury, Coronavirus State and Local Fiscal Recovery Funds, Final Rule, RIN 1505- AC77, at p. 296 (rel. Jan. 6, 2022), available at: [SLFRF-Final-Rule.pdf](#) (treasury.gov).

⁹ Infrastructure Investment and Jobs Act of 2021, <https://www.congress.gov/117/plaws/publ58/PLAW-117publ58.pdf>

increased between December 2019 and December 2022.¹⁰ With technology upgrades being implemented across myriad technologies and further advances on the horizon,¹¹ we urge the Commission to set an upload benchmark that households and businesses *need* for present and future, rather than one deemed sufficient for the time being.

The 1996 Telecommunications Act calls on the Commission to ensure that comparable communications services are available at comparable rates in rural communities just as they are available to those living in urban and suburban areas. Accordingly, the measure of universal broadband service should consider the speeds that are currently needed and achievable in order to support concurrent and future use of multiple devices within a household. Those speeds are being achieved currently using fixed terrestrial broadband networks should have a minimum of 100/100 Mbps.¹²

The Commission is Rightly Assessing the Availability of Fixed and Mobile Broadband Separately & These Services Should be Viewed as Complementary Rather than as Substitutes.

We agree and endorse the Commission’s decision 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. NRECA supports the Commission’s proposal

¹⁰ *NOI* at para 19, citing OpenVault 4Q2022 Report at 15; OpenVault 4Q2020 Report at 7. OpenVault reports average monthly download bandwidth consumption was 551.4 GB in December 2022, compared to 344 GB in December 2019 (a roughly 60% increase), while it reports average monthly upload bandwidth consumption was 35.3 GB in December 2022, compared to 19 GB in December 2019 (a roughly 86% increase).

¹¹ Dawson, Doug. “The Definition of Upload Speed” CCG Consulting Nov. 20 2023 : “Several of the big cable companies are currently implementing mid-split technology upgrades [r]eported as delivering from 100 Mbps to 300 Mbps upload speeds depending upon the local conditions in a cable company network...As WISPs implement the newest radios, and particularly when they integrate 6 GHz spectrum, the networks will be able to deliver much faster speeds. Wireless network technology is interesting in that the ISP can determine the amount of upload and download speed to offer – and as overall speeds get faster, WISPs will be able to deliver 100 Mbps speeds if they elect to do so.”

¹² NRECA also notes that wireless broadband service is not robust enough to support these existing household needs, much less future needs.

to include a separate assessment of the number of fixed *and* mobile broadband provider options to which consumers have access.¹³ Further, we appreciate the Commission’s recognition that in identifying service differences “consumers have distinct broadband uses in the home and on the go.”¹⁴ This distinction is especially relevant in rural communities who are often the last to receive any new wireless technology, if they ever do receive it. The Commission notes that the fact that many households that can afford to do so subscribe to both fixed and mobile services suggests that “these separate services offer benefits that households may view as complementary or independent of each other.”¹⁵ We agree with this suggestion and in turn urge the Commission to continue to not treat fixed and mobile services as full substitutes, but rather as purely complementary, as they are by consumers.

Fixed Terrestrial Wireline Broadband Networks, Rather Than Wireless Broadband Service, Should be the Measure of Whether Broadband Service is Universally Available.

NRECA continues to urge the Commission to measure the extent to which fixed wireline terrestrial service is available when determining whether advanced telecommunications capabilities are being deployed to all Americans in a timely manner.

Fixed and mobile technologies may be substituted for accessing certain uses, programs, and applications, but mobile broadband service is limited by monthly usage limits. Wireless services, both fixed and even more so mobile, struggle to meet consumers’ broadband needs if they can be met at all. 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.

¹³ *NOI* at para 36.

¹⁴ *NOI* at para 37.

¹⁵ *Id.*

In addition to placing caps on monthly usage, mobile wireless pricing is device-specific, while fixed broadband service pricing is not. After fixed broadband service is delivered to a premises, Wi-Fi routers or Ethernet cables at that location can connect multiple devices, including laptops, tablets, smartphones, and other Internet of Things devices. Each of them can be used simultaneously to perform all the functions of telecommuting, remote schooling, video conferencing, telehealth, and more. A home relying solely on mobile wireless service, on the other hand, may need multiple mobile connections to achieve the same capabilities because of wireless broadband speed and bandwidth constraints. This potentially means paying for multiple connections, all with data caps, which is simply unworkable for many U.S. homes, particularly in rural America. The clear path to ensure accuracy for true assessment of universal broadband availability is to primarily rely on fixed terrestrial wireline network data.

Affordability

NRECA member cooperatives are keenly aware of the many affordability challenges for their customers, particularly considering they collectively serve 92% of the persistent poverty counties identified by the U.S. Census Bureau. To that end, NRECA clearly agrees with the statement in the Notice that “to truly close the connectivity gap and ensure that all Americans have access to advanced communications capability, broadband services must be affordable.”¹⁶ The 2022 Brookings Institution survey study cited in the Notice is instructive, highlighting the vast discrepancy between the highspeed home broadband subscriptions in rural and low income rural areas as opposed to those with high income.¹⁷ Given the aforementioned characteristics of

¹⁶ *NOI* at 54.

¹⁷ *Id.* The *NOI* cites Brookings study finding that in rural areas, 54.7% of people with an annual income of less than \$10,000 subscribed to high-speed broadband at home, but 74.9% of people with an annual income of 100,000 to \$149,000 subscribed to high-speed broadband at home.

broadband areas served by NRECA co-ops, we strongly urge that any affordable determination change should logically and responsibly depend on the area of the country the Commission is evaluating.

Further, as discussed earlier in these comments, NRECA co-ops have successfully won and relied on federal broadband grant funding to build out into some of the most remote areas of the country. But consumers still must be able to afford the service for the digital divide to be truly closed. As such, we urge the Commission to continue to focus on and undertake efforts to address affordability of broadband service. In turn, we also urge the Commission to not only account for programs that have provided affordability support in the past in changing any determinations, but also the current uncertainty regarding low-income support programs in the future.

CONCLUSION

NRECA again commends the Commission for taking an important step forward in proposing to raise the download/upload speed benchmark for fixed broadband service to 100/20 Mbps. However, for the forgoing reasons, we respectfully request that it considers that the optimal path toward achieving the section 706 universal service goals is to go a step further and implement a 100 Mbps symmetrical standard, and a long-term goal of symmetrical 1 Gbps standard. Further, we believe that the surest path to accurate broadband availability evaluation is to consider fixed terrestrial wired broadband rather than complementary wireless offerings. We also appreciate the necessary attention the Commission is giving to rural affordability.

Rural Electric Cooperative Association

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