Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Inquiry Concerning Deployment of Advanced	)	GN Docket No. 25-223
Telecommunications Capability to All Americans	)	
In a Reasonable and Timely Fashion	)	

COMMENTS OF THE NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

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SUMMARY OF ARGUMENT

Many of NRECA's rural electric cooperative members provide symmetrical, gigabit-capacity broadband service, and do so in some of the most rural and sparsely populated areas in the nation. NRECA acknowledges the Commission's objective of hewing closely to the Section 706 statutory requirements, but NRECA is concerned that the next Section 706 Report will not adequately reflect current broadband market realities, in which 100/20 Mbps is anything but "advanced."

NRECA urges the Commission in the next Section 706 Report ("*Section 706 Report"* or "*Report")* to be more aggressive with respect to the fixed broadband speed benchmark, and not to abandon its long-term speed goal. The Commission also should no longer discount upload speeds and should expand the benchmarks to include symmetrical service. The Commission should report data on symmetrical speeds, even if not yet adopted as a market benchmark.

While the Commission should report data on Low Earth Orbit (LEO) satellite service subscribership, NRECA suggests that the Commission must develop the record more fully before concluding that LEO satellite service provides "advanced telecommunication capability" within the meaning of Section 706.

With respect to mobile service, the Commission should continue to acknowledge that mobile and fixed broadband services are different in kind. They are complementary, but not substitutes.

Finally, NRECA suggests that the Commission should more clearly recognize that rurality is a main factor in broadband availability, and the next Section 706 Report should include more specific metrics and analysis relating to broadband service in rural areas.

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To: The Commission

COMMENTS OF
THE NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

The National Rural Electric Cooperative Association ("NRECA") submits these Comments in response to the Federal Communications Commission's ("FCC" or "Commission") Nineteenth Section 706 Report Notice of Inquiry issued on August 8, 2025, in the above-captioned proceeding (*"Section 706 NOI"* or "*NOI*").[1]

I. INTRODUCTION

NRECA is the national service organization for nearly 900 not-for-profit rural electric cooperatives that provide electric power to 56% of the nation's landmass, including approximately 42 million people in 48 states. Rural electric cooperatives serve 88% of the counties of the United States, including 92% of the nation's 353 persistent poverty counties.

Rural electric cooperatives were formed to provide safe, reliable electric service to their member-owners at the lowest reasonable cost. They are dedicated to improving the communities

[1] *In the Matter of Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion,* GN Docket No. 25-223, Nineteenth Section 706 Report Notice of Inquiry (rel. Aug. 8, 2025).

in which they serve, and the 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, are democratically governed, and operate according to the seven Cooperative Principles.[2] All of NRECA's electric distribution cooperatives are small business entities as defined by the U.S. Small Business Administration.

The nation's rural electric cooperatives are committed to promoting the deployment of advanced telecommunications capabilities within the rural communities and areas in which they serve, and electric cooperatives are playing a crucial role in the development of broadband infrastructure to serve rural unserved and underserved locations. Over 200 rural electric cooperatives currently are working to provide these much-needed broadband services themselves or through partnerships with affiliated or unaffiliated ISPs. These electric cooperative broadband projects serve some of the most difficult-to-reach, lowest-density and economically challenging broadband service areas in the U.S., and most of them offer a 100 Mbps symmetrical service tier – many as their lowest-speed offering.

NRECA urges the Commission in the next Section 706 Report ("*Section 706 Report"* or "*Report")* to be more aggressive with respect to the fixed broadband speed benchmark, and not to abandon its long-term speed goal. The Commission also should no longer discount upload speeds and should expand the benchmarks to include symmetrical service.

NRECA is concerned that the Commission's approach to the next *Section 706 Report* – as proposed in the *NOI* – will be too passive and will not reflect market realities. More to the point,

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[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.

the Commission appears poised to violate the oft-cited "Gretzky Rule," by skating to where the puck has been, and not to where it is going.[3]

NRECA's Comments focus on six main points:

1. **The Commission should continue to be forward-looking in its long-term broadband objectives and retain the goal of 1 Gbps/500 Mbps.**

2. **The Commission should adopt a symmetrical fixed broadband benchmark of 100 Mbps/100 Mbps.**

3. **The Commission should report data on symmetrical speeds, even if not yet adopted as a market benchmark.**

4. **The Commission should report data on Low Earth Orbit (LEO) satellite subscribership, but must develop the record more fully before concluding that LEO service provides "advanced telecommunication capability."**

5. **Mobile service is complementary to fixed broadband service, not a substitute.**

6. **The Commission should more clearly recognize that rurality is a main factor in broadband availability.**

II. COMMENTS

1. The Commission Should Continue to be Forward-Looking in its Long-Term Broadband Objectives and Retain the Goal of 1 Gbps/500 Mbps.

The Commission in the *NOI* proposes to "abolish without replacement the long-term goal of 1,000/500 Mbps established in the *2024 Report.*"[4] NRECA does not agree with this proposal.

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[3] *See In the Matter of Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion,* GN Docket No. 24-214, Eighteenth Section 706 Report Notice of Inquiry (rel. Sept. 26, 2024) (*2024 Section 706 NOI*), Statement of then-Commissioner Carr, at n.4, quoting address of then-Commr. Carr to The Federalist Society 2019 National Lawyers Convention:

> And this brings me to The Great One, Wayne Gretzky, a Canadian by birth but an American at heart, who warned us against this status quo bias. The secret to his legendary success on the ice was to "skate to where the puck is going, not where it has been." The Gretzky Test is popular in sports and in business now, and I think competition authorities—and especially those of us in tech and telecom regulation—should hold ourselves to it, too.

[4] *NOI,* ¶ 11.

The Commission justifies the removal of the long-term objective in part because the Section 706 statute does not explicitly require it. NRECA contends that the Section 706 statutory directive may reasonably be interpreted to enable the Commission to adopt a long-term service metric objective (especially being aspirational only), if the Commission wishes to do so. Having an objective will help ensure that data is gathered and analysis undertaken relating to the core question -- whether advanced telecommunications capability is "*being* deployed" on a timely basis to all Americans. As a policy matter, having a long-term federal goal for residential fixed broadband will help ensure that U.S. telecommunications capability does not fall behind global competitors, many of which have institutionalized aggressive long-term objectives.[5]

The Commission also justifies the removal of the long-term objective on grounds of technological neutrality, and is concerned that aspiring to 1 Gbps / 500 Mbps service may unfairly prejudice certain technologies. The *NOI* asserts that "*maintaining such a goal risks skewing the market by unnecessarily potentially picking technological winners and losers. It would also appear to violate our obligation to conduct our analysis in a technologically neutral manner. . . . [I]t is impossible to predict long-term technological developments and the evolution of consumer preferences*."[6]

"Technological neutrality," as applied by the Commission, seems to mean "lowest common denominator." This threatens to undermine American competitiveness. Further, by ignoring technological realities for the sake of "neutrality," the Commission risks unintentionally picking winning and losing *consumers* (rather than technologies) and relegating certain populations to

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[5] The European Commission, for example, has set a goal of 1 Gbps connectivity for every household in Europe by 2030. *See* European Commission Digital Decade Policy Programme 2030, https://digital-strategy.ec.europa.eu/en/policies/digital-decade-policy-programme (last visited Aug. 27, 2025).

[6] *NOI*, ¶ 11 (emphasis added).

subpar service, rather than encouraging innovation and incentivizing improvements. NRECA respectfully submits that, if certain technologies are incapable of meeting a certain service threshold informed by consumer choices already being made in the marketplace, they are not equal and do not merit "neutral" treatment as compared with more capable technologies. Unequal technologies need not, and should not, be treated as equal.[7]

NRECA also disagrees that it is "impossible to predict long-term technological developments and the evolution of consumer preferences."[8] Technological developments have consistently trended, and will continue to trend, toward more robust – and symmetrical – broadband service.[9] As further explained in the following section, market trends clearly indicate that even the *current* mainstream consumer preference is to receive far more robust broadband service than 100/20 Mbps, and that preference is moving in only one direction.[10] For example, the Commission's Thirteenth "Measuring Broadband America" fixed broadband report, published in August 2024, states that the weighted average advertised download speed of participating ISPs was 467 Mbps, an increase of 52% from the twelfth report and 141% from the eleventh report.[11]

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7 In the case of fixed wireless, there would appear to be no need to remove the long-term speed goal on the basis of technology neutrality. In 2020, as part of the RDOF Auction (Auction 904), the Commission determined that fixed wireless providers could, on a case-by-case basis, bid in the gigabit tier requiring 1 Gbps download and 500 Mbps upload, consistent with the Commission's current long-term speed goal. Several fixed wireless providers received RDOF support to deliver such speeds. Fixed wireless technology has continued to improve since then, negating any need to eliminate the Commission's long-term speed goal in the name of technology neutrality. *See also* Letter to The Honorable Alan Davidson, Assistant Secretary, NTIA, from David M. Zumwalt, President & CEO, WISPA, July 20, 2022, *available at* https://www.wispa.org/media/v1/543/2024/01/220720_Zumwalt_Letter_to_Davidson_NTIA_w_attach.pdf (last visited Aug. 27, 2025) (stating that WISPA members provide service with "speeds of 100/20 Mbps up to a gigabit…").

8 *NOI,* ¶ 11.

9 *See* OpenVault 2Q25 Report, *infra* n.17.

10 *Id.*

11 Federal Communications Commission, *Thirteenth Measuring Broadband America Fixed Broadband Report,* available at: https://data.fcc.gov/download/measuring-broadband-america/2023/2023-Fixed-Measuring-Broadband-America-Report.pdf (August 2024), at 12.

Having a forward-looking, long-term objective that acknowledges global broadband market realities, and gathering data for analysis relating to that objective, is simply good policy.[12]

2. The Commission Should Adopt a Symmetrical Fixed Broadband Benchmark of 100 Mbps/100 Mbps.

The *NOI* seeks comment on whether the Commission should again use 100/20 Mbps as the benchmark for defining "advanced telecommunications capability" for fixed broadband.[13] NRECA urges the Commission to adopt a symmetrical 100/100 Mbps fixed broadband benchmark for the forthcoming *Section 706 Report,* as the 100/20 Mbps benchmark already lags behind where the market is today.[14] As previously noted, the majority of NRECA member cooperatives that provide broadband already offer a 100 Mbps symmetrical service tier – and do so in extremely rural, sparsely populated areas. For many it is the very *lowest* speed tier they offer. With the exception of cable MSOs and legacy copper networks, the wireline broadband industry offers symmetrical service tiers as a matter of course.

Simply put, the Commission should no longer discount the importance of upload speed. The Commission's statutory task in generating the *Section 706 Report* is to determine "whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion."[15] Recognizing the importance of upload speed, the statutory definition of

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[12] If the Commission objects to the moderately aggressive long-term goal of 1,000/500 Mbps, the Commission could reasonably opt for a more modest objective of 300/80 Mbps, which approximates the average service available nationwide. *See* Speedtest.net, United States Median Country Speeds Updated July 2025, https://www.speedtest.net/global-index/united-states#fixed (last visited Aug. 25, 2025).

[13] *NOI,* ¶ 10.

[14] NRECA echoes the Commission's own Precision Agriculture Task Force 2022 recommendation, stating that the Commission should "[s]et a symmetrical standard of 100/100 Mbps at the field level and 1/1 Gbps to headquarters, farm office, farmhouse or farmstead." *See* FCC Precision Agriculture Task Force, *Examining Current and Future Connectivity Demand for Precision Agriculture, Interim Report* – December 2, 2022, available at https://www.fcc.gov/sites/default/files/connectivity-needs-anticipating-demand-interim-12022022.pdf (last visited Aug. 27, 2025).

[15] 47 U.S.C. § 1302(d)(1).

"advanced telecommunications capability" is "high speed, switched, broadband telecommunications capability that enables users to **originate and receive** high-quality voice, data graphics and video telecommunications."[16]

Hewing to the statutory definition of "advanced telecommunications capability" requires the Commission to consider whether upstream capacity is sufficiently robust to qualify as "advanced telecommunications capability." NRECA submits that the asymmetric 100/20Mbps benchmark does not meet this standard.

Recent developments in the U.S. residential broadband market evince a strong trend toward symmetrical broadband connections:

- A recent Rural Broadband Benchmarking Report by NRECA and the National Rural Telecommunications Cooperative (NRTC) shows that nearly fifty percent of residential customers choose broadband speeds exceeding 475Mbps/475Mbps.[17] Consumer demand for upload speed is increasing much faster than consumer demand for download, and the number of "power users" is expected to increase at an even faster rate.[18]
- According to OpenVault's Q2 2024 report, average monthly download usage increased 52% over the past four years, while average upload usage has *increased by 80%*.[19]
- In OpenVault's most recent report – entitled "Picking Up the Pace in Usage and Upstream" – upstream usage grew 17.9% in Q2 of 2025, the fastest second-quarter upstream growth on record.[20]

The market for more robust symmetrical broadband service is exemplified by NRECA member service providers. For example, Suwannee Valley Electric Cooperative ("SVEC"), in northern Florida, offers a symmetrical 100 Mbps service, symmetrical 1 Gbps service, and

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16 *Id*; *NOI*, n. 1 (emphasis added).

17 *Rural Broadband Benchmarking Report,* NRTC and NRECA, May 2025, https://www.nrtc.coop/wp-content/uploads/2025/06/REC-Broadband-Benchmarking-Report-2025-Refresh.pdf

18 *Id.*

19 OpenVault Broadband Insights Report, 2Q24, August 2024, https://openvault.com/resources/ovbi/ (last visited Aug. 24, 2025).

20 OpenVault Broadband Insights, *OpenVault 2Q25 Report: Picking Up the Pace in Usage and Upstream,* August 2025, *available at* https://openvault.com/resources/ovbi/ (last visited Aug. 24, 2025).

symmetrical 2 Gbps service. While 2,740 SVEC customers chose the symmetrical 100 Mbps service, a higher total number (2,933) chose the higher 1 Gbps and 2 Gbps services (1,782 and 1,151, respectively). Similarly, Pierce Pepin Cooperative Services in Ellsworth, WI (offering broadband under its SwiftCurrent Connect subsidiary) reports that 99.5% of customers receive symmetrical 250 Mbps speeds or higher, with fastest growth occurring in the 500 Mbps symmetrical service tier. *Fewer than 1% of users select the 100 Mbps symmetrical service,* and in fact 100 Mbps service is the budget option available only to qualified low-income households. SwiftCurrent offers no asymmetrical service at all.

Against these market realities, a fixed broadband benchmark that continues to accommodate upload speeds of 20 Mbps is (or soon will be) contrary to consumer demand and experience, and serves only to perpetuate dated and/or sub-par network infrastructure, especially in rural America. Americans that do not have access to robust *symmetrical* service will soon lack "advanced" service, under any reasonable interpretation of the term. The Commission should acknowledge market realities and consumer demand, and adjust the fixed broadband benchmark to a symmetrical standard.

3. The Commission Should Report Data on Symmetrical Speeds, Even If Not Yet Adopted as a Benchmark.

If the Commission does not adjust the broadband benchmark as part of its forthcoming *Section 706 Report*, the Commission can and should report on and analyze symmetrical speeds as part of the *Report.* NRECA urges the Commission to report deployment data for symmetrical speeds, at both the 100 Mbps and 1 Gbps (or 940 Mbps) tiers. Even if the Commission has not yet opted to adjust its fixed broadband benchmark, having such data will better inform the policy debate as to when the Commission should adjust the broadband benchmarks to a symmetrical measure.

NRECA also respectfully submits that a *Report* not containing such information does not adequately follow the statutory Section 706 requirements with respect to reporting on "origination" of communications, as set forth in 47 U.S.C. § 1302(d)(1).

4. The Commission Should Report Data on LEO Satellite Subscribership, But Must Develop the Record More Fully Before Concluding That LEO Service Enables "Advanced Telecommunications Capability."

The Commission in the *NOI* seeks comment on how it should treat satellite service as part of the Section 706 inquiry, noting that "Section 706 defines advanced telecommunications capability 'without regard to any transmission media or technology.'"[21]

NRECA recognizes that LEO satellite will play a key role in ensuring all Americans have access to some level of connectivity, especially those in extremely remote areas or areas with particularly challenging terrain. As such, NRECA suggests that the Commission should report data on LEO satellite subscribership, but the Commission should not conclude that theoretical access to LEO satellite service means "advanced telecommunications capability" is necessarily available.

Any data showing LEO satellite availability must account for LEO satellite's technical scalability challenges, which have been well-documented.[22] More to the point, if all households in a given area (or even a significant percentage of them) subscribed to LEO service, would it still meet the bare minimum 100/20 Mbps service threshold? NRECA is concerned that oversubscribed

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21 *NOI,* ¶ 17.

22 *See* Cartesian, "BEAD Restructuring Policy Notice: A Guide to Assessing Network Scalability for State Broadband Offices," June 30, 2025 ("LEO satellite capacity needs to be understood at the 'spot beam' level, considering spectrum and other factors"), https://www.cartesian.com/wp-content/uploads/2025/06/Cartesian_Scalability-Framework_BEAD-Restructuring-30June2025.pdf (last visited Sept. 5, 2025); S. Meinrath, K. Grindal, G. Fishbine, N DeGidio, *Starlink Capacity Analysis v0.2,* July 18, 2025, https://thexlab.org/wp-content/uploads/2025/07/Starlink_Analysis_Working_Paper_v0.2-1.pdf (last visited Aug. 27, 2025); Y. Chen, L. Liu *et al, Unraveling Physical Space Limits for LEO Network Scalability,* Nov. 2024, https://conferences.sigcomm.org/hotnets/2024/papers/hotnets24-211.pdf (last visited Aug. 27, 2025).

LEO satellite service will fail to serve the telemedicine, distance learning, and other needs of rural consumers. In fact, according to a recent Ookla report, only 17.4% of U.S. Starlink Speedtest users nationwide were able to get broadband speeds consistent with the FCC's minimum requirement for broadband of 100 Mbps download speeds and 20 Mbps upload speeds.[23]

In light of the many legitimate concerns surrounding LEO satellite capabilities and scalability, the Commission must more fully develop the record before making any determination that LEO satellite service is *per se* "advanced telecommunications capability." NRECA notes that developing the record on this point is not inconsistent with the Commission's "technology neutral" directive: the question is whether the technology meets the minimum threshold consistently and is properly considered an "advanced" capability at all.

5. Mobile Service is Complementary to Fixed Broadband, Not a Substitute.

NRECA supports the Commission's conclusion in the *2024 Report* that "fixed and mobile services are more appropriately treated as complementary, rather than as full substitutes and that consumers have advanced telecommunications capability to the extent they have access to both fixed and mobile broadband service."[24] Mobile service does not serve as a substitute for fixed broadband service – and vice versa. They are different in kind. The Commission should reiterate this analytical framework for purposes of the forthcoming *Section 706 Report.*

6. The Commission Should More Clearly Recognize that Hard to Reach Rural Areas Deserve More Robust Broadband Service.

While NRECA acknowledges that the Section 706 Report is not primarily about identifying causes and solutions, NRECA urges the Commission to more explicitly recognize that *rurality* is

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[23] Ookla, *Starlink's U.S. Performance is on the Rise,* June 10, 2025, https://www.ookla.com/articles/starlink-us-performance-2025 (last visited Aug. 27, 2025).

[24] *NOI,* ¶ 9; *2024 Report* at ¶¶ 10, 12-13, 19, 21.

perhaps the most fundamental challenge to the reasonable and timely deployment of advanced telecommunications capability to "all Americans":

- Rural areas are the more expensive to serve and present the most challenging economic scenarios for service providers.[25]
- Rural broadband service therefore tends to be expensive and unaffordable for many, if it is available at all.
- Rural areas are often areas of persistent poverty.

Together, these factors highlight a combination of problems relating to advanced telecommunications access. NRECA's members – which provide electric service to 92% of the nation's persistent poverty counties – are well-acquainted with these challenges.

NRECA believes that the Commission would help address the rural access challenge by adopting the more forward-looking benchmarks and objectives suggested in these Comments. NRECA's members serve these rural customers, and do so with symmetrical broadband service far exceeding the Commission's minimum 100/20 Mbps fixed broadband benchmark. The FCC's own data show that the market has moved beyond 100/20 Mbps.[26] Consumers will continue to demand more bandwidth and higher speeds and ISPs, at least in urban areas, will continue to invest in upgrades to meet demand. Adopting forward-looking – yet currently achievable – standards will help ensure that rural broadband consumers are not relegated to second-class service, and that,

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[25] The Commission's Technological Advisory Council summed up this issue well, stating "[r]ural broadband networks present unique economic, operational, and infrastructure challenges due to their low population densities and limited return on investment. Unlike urban networks, which benefit from subscriber density and established infrastructure, rural networks often serve fewer than 10 subscribers per mile of fiber—and sometimes as few as three." FCC Technological Advisory Council, "*The Transformation of the Network: Impacts on the FCC, the Telecommunications Industry, and End-Users*, *available at* https://www.fcc.gov/sites/default/files/08-05-2025-AIWG-Final-report-for-August-5-TAC-Final.pdf (last visited Aug. 27, 2025).

[26] NCTA, citing FCC Data, states that 91 percent of American homes have access to at least 1 Gbps speeds. NCTA, *Broadband Stats: America's World Class Broadband*, *available at* https://www.ncta.com/news/broadband-stats-americas-world-class-broadband/ (last visited Aug. 27, 2025). Further, US Telecom cites 301/96 Mbps as the weighted average of fastest download/upload speeds in 2024. https://ustelecom.org/wp-content/uploads/2024/12/USTelecom-2024-Broadband-Pricing-Index.pdf (last visited Aug. 27, 2025).

in accordance with the Commission's additional responsibilities under Section 254 of the Act, rural consumers can receive services and pricing reasonably comparable to that provided in urban areas.[27]

III. CONCLUSION

NRECA appreciates the opportunity to submit the above Comments.

Respectfully submitted,

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[27] 47 U.S.C. § 254(b)(3).