

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Reforming the High-Cost Program for an All-IP Future	)	WC Docket No. 26-96
	)	
Connect America Fund: A National Broadband Plan for our Future High-Cost Universal Support	)	WC Docket No. 10-90
	)	
	)	

**COMMENTS
OF
WTA – ADVOCATES FOR RURAL BROADBAND**

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Derrick B. Owens
Senior Vice President of Government and Industry Affairs

Stephen L. Goodman
Regulatory Counsel

400 Seventh Street NW, Suite 406
Washington, D.C. 20004
Tel: (202) 548-0202

Date: August 4, 2026

SUMMARY

In order to determine where the Commission should head with regard to reforming the High Cost Program portion of its rural service subsidy and cost recovery programs, the Commission must understand how we got to where we are today. Universal service as a principal goes back to the original Section 151 of the 1934 Communications Act, and was implemented through various programs, including separations, access charges and subscriber line charges, and then the Universal Service Fund following Congress' adoption of the 1996 Telecommunications Act. Section 254, adopted as part of the 1996 Act, includes Congressional directives to the Commission to follow several principles, including Section 254(b)(3) -- that rates and services in rural areas shall be reasonably comparable to those in urban areas; and Section 254(b)(5) -- that universal service support shall be specific, predictable and sufficient. The High Cost Program under review in this proceeding is one of many support mechanisms, but it remains critical to meeting those Section 254 principles.

Rather than proposing specific changes to its High Cost Program rules, the *NPRM* offers three potential pathways – update the current support mechanisms, develop a new single modernized fixed-support mechanism replacement, or maintain the status quo while allowing the ACAM support to sunset. Before assessing which of these alternatives would best serve the public interest and rural customers' interests, a lot more of the details would be needed. But WTA agrees that there probably is a need to update some of the components of these support mechanisms. Costs have changed, with some costs decreasing and others increasing significantly, such as fiber and certain electronics due to data center demand. In addition, the minimum speeds should also be increased to support applications critical to rural customers like precision agriculture, distance-learning, telehealth and AI.

But with respect to updating the various model-based support programs or moving to a single support mechanism, the Commission must understand why a significant number of companies had declined to accept previous offers of model-based support. WTA members who declined model-based support pointed to risks and lack of risk pooling as concerns, particularly with regard to natural disasters. Other members decided that the offered payments would be insufficient to ensure adequate cost recovery to repay loans and to continue to invest in the network being built in these high cost areas. WTA's members also expressed concerns with unreasonable adjustments to the payments under the model-based support based on factors such as assumed take rates and imputed income.

Some of the possible issues discussed in the *NPRM* also need to be fleshed out. Excluding the “hardest to reach” areas from the rural carrier's obligation to serve and allowing alternative technologies for those locations may make sense, although the substitute services may be less robust and reliable. With respect to how to deal with locations already served by an “unsubsidized competitor,” it will be necessary to define that term broadly to take into account indirect subsidies, such as low-interest loans to electric co-ops, or LEO satellite service providers getting access to spectrum for free under Section 765f of the Communications Act (as opposed to terrestrial mobile providers who acquire their spectrum through FCC auctions that to date have exceeded \$200 billion that went to the U.S. Treasury). And to the extent the Commission eliminates the obligation of the rural carrier to serve such locations while reducing their support, any such reduction in support should only reflect the reduced incremental costs of serving those locations. The Commission would also need to address what happens if the “unsubsidized competitor” later decides to cease providing service, since it is not clear that those companies would have a carrier of last resort obligation.

Finally, WTA raises significant concerns with the *NPRM*'s possible reliance on LEO satellite broadband service to meet the needs of rural America. There are significant issues with their shared capacity (both intra- and inter-system) and orbital debris. There are also concerns with regard to the financial viability of LEO satellite systems. Indeed, the Registration Statement filed by SpaceX in connection with its recent IPO acknowledged all of these risks.

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Comments of WTA – Advocates for Rural Broadband

WTA – Advocates for Rural Broadband (“WTA”) submits these comments in response to the Commission’s Notice of Proposed Rulemaking with respect to potential reforms to the Universal Service High-Cost support mechanisms.¹ WTA is a national trade association representing approximately 400 small, rural local telecommunications carriers. The typical WTA member company serves fewer than 5,000 customers per service area and has fewer than 50 employees. WTA’s members provide voice, broadband and other communications-related services to some of the most remote, rugged, sparsely populated, and expensive-to-serve areas of the United States, and have been at the forefront of providing advanced services to these very difficult to serve territories. WTA’s members have long embraced the goal of universal service. Each of WTA’s member companies receive universal service support from the various Commission programs, and have used that support to deploy and maintain service in areas

¹ *Reforming the High-Cost Program for an All-IP Future; Connect America Fund: A National Broadband Plan for our Future High-Cost Universal Support*, FCC 26-35, released May 21, 2026 (hereafter cited as “NPRM”). The notice of this Commission action was published in the Federal Register on June 5, 2026, 91 FR 34201.

where others chose not to serve. WTA's members thus have a very strong interest in this proceeding.

I. Introduction

Federal support for maintaining reasonable rates for telecommunications services in rural areas in America has a long pedigree, going back to the inception of the Federal Communications Commission ("Commission"). Congress, in the original Section 1 of the 1934 Communications Act incorporated the universal-service principle as an FCC goal:

For the purpose of regulating interstate and foreign commerce in communication by wire and radio *so as to make available, so far as possible to all the people of the United States* a rapid, efficient, Nation-wide, and world-wide wire and radio communication service *with adequate facilities at reasonable charges*.²

The Commission (and state regulators) implemented this policy through the Separations and Settlement process, with the former Bell System making payments to large and small independent telephone companies or transfers to the local Bell companies to reimburse the federal portion of local service costs. In 1970, the regulators and the phone companies agreed to modify the separations manual to more than triple the "over-allocation" of costs to the federal jurisdiction in order to subsidize local service under the "Ozark Plan."³

The advent of long-distance competition and the break-up of the Bell System necessitated further changes to that universal service support mechanism, however. The Commission, in concert with State regulators, in 1983 froze the percentage of non-traffic sensitive costs assigned to the Federal jurisdiction (the Subscriber Plant Factor) at 25%,

² 47 U.S.C. 151 (emphasis added).

³ *Prescription of Procedures for Separating and Allocating Plant Investment, Operating Expenses, Taxes and Reserve Between the Interstate and Intrastate Operations of Telephone Companies*, 26 F.C.C. 2d 247 (1970).

established a program for support for companies whose costs significantly exceeded the national average, and required all interstate long-distance carriers to contribute to covering these costs through “access charges,” paid by the long-distance carriers to the local exchange carriers (with subscribers paying part of the federal portion through flat monthly fees – the subscriber line charge).⁴

With the subsequent emergence of local-service competition in the 1990s, Congress explicitly expressed its support for universal service and addressed it in the context of comprehensive telecommunications law reform through the Telecommunications Act of 1996. In doing so, Congress in Section 254 codified the longstanding system of telecommunications services providers contributing to the funding of universal service support, as well as expanding that support to ensure that affordable access to telephone service and advanced services was also available to all schools, libraries and healthcare providers.⁵ Congress also codified the principles that universal service support must be specific and predictable, and that rates and services must be reasonably comparable between urban and rural areas.

In its recent decision upholding the constitutionality of the Universal Service Fund (“USF”), the U.S. Supreme Court acknowledged the history of universal service support by the Commission when it started off its decision by noting:

⁴ *MTS & WATS Market Structure*, 93 F.C.C. 2d 241 (1983). In that same decision, the Commission “temporarily” exempted information services (then called “enhanced services”) from paying access charges to subsidize local service, because, in the words of Commissioner Dawson, enhanced services were an “infant industry” that needed protection. *Ibid* at ¶ 83 and Separate Statement of Commissioner Dawson. That enhanced/information services exemption, which was extended to the USF contribution obligation, has remained in place for more than forty years. It is long past time that the Commission address this quirk in the USF contribution system. *See* n. 9, *infra*.

⁵ 47 U.S.C. 254(b)(3) and (b)(6).

Nearly a century ago, Congress charged the then-new Federal Communication Commission (FCC or Commission) with making communications services available, at affordable prices, to all Americans. That objective became known as “universal service.” Some decades on, near the turn of the 21st century, Congress reaffirmed its commitment to universal service while providing new and more detailed instructions to the FCC about how to achieve it.⁶

The evolution of universal service support over nearly a century has resulted in a variety of federal high-cost support mechanisms and infrastructure subsidy programs at both the State and federal levels.⁷ In addition, some of the sources of revenue that the rural carriers rely on to support their capital and operating costs are under review in other proceedings.⁸ Thus, it makes sense for the Commission to broadly examine ways in which to make the High Cost Program and other rural carrier revenue and support sources more rational, harmonious, effective and efficient. In addition, as part of this holistic review the Commission should address USF contribution reform, in light of the fact that the USF contribution factor is nearly 40%, while the current methodology reflects a 1983 Commission decision to exempt “enhanced service

⁶ *Federal Communications Commission v. Consumers’ Research*, 145 S.Ct. 2482, 2491 (2025).

⁷ Federal programs include at the Commission the ACAM/Enhanced-ACAM programs; CAF-BLS/HCLS; the Alaska and Puerto Rico Funds; the Mobility and 5G Funds; and the RDOF auction. In addition, rural companies rely on cost recovery/revenues from access charges/intercarrier compensation, as well as Telephone Access Charges. Federal support for rural broadband deployment has also been provided via the American Rescue Plan Act and the Broadband Equity, Access, and Deployment programs, as well as low-interest loans and grants provided by the Rural Utility Service. Finally, some 40 States have USF support programs, many of which mirror the Commission’s USF program.

⁸ *In the Matter of Reforming Legacy Rules for an All-IP Future; Accelerating Network Modernization*, FCC 26-11, released February 19, 2026 (proposes changing intercarrier access charges to bill-and-keep; phasing out CAF ICC support); *Public Notice*, Parties Asked to Refresh the Record on Telephone Access Charges Notice of Proposed Rulemaking, WC Docket No. 20-71, DA 25-508, released June 11, 2025; *Price Cap Business Data Services; Regulation of Business Data Services for Rate-of-Return Local Exchange Carriers*, FCC 25-44, released August 8, 2025, 90 Fed. Reg. 42713(Sept. 4, 2025)(BDS detariffing).

providers” from access charges because they were an “infant industry” that needs protection in the early 1980’s.⁹ And in taking all of these steps, the Commission must keep as its lodestar Congress’ directives in Section 254(b)(3) and (b)(5) -- that the Commission must base policies for the preservation and advancement of universal service on several principles, including:

(3) Access in rural and high cost areas

Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.

(5) Specific and predictable support mechanisms

There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service.

WTA appreciates that the Commission acknowledges the importance of the High Cost Program in the first paragraph of the *NPRM*, and that the Commission acknowledges in the fifth paragraph of the *NPRM* how Congress made that very clear in Section 254(b).

The USF has played a critical role in allowing WTA’s members to build to communities when other providers did not want to do so because it was not “economical” to do so. The USF, and the High Cost Program in particular, has been extremely important to WTA’s members in their efforts to deploy and maintain telephone and now advanced communication service/networks to rural high cost areas. It has also been critical in maintaining affordable rates for WTA’s members’ customers. The High Cost Program is still necessary for maintaining and operating those networks, as well as continuing to support network build-outs

⁹ See n. 4, *supra*. WTA notes that as it has explained previously, the Commission has authority to assess USF contribution requirements on the “telecommunications” component of information services. *E.g.*, WTA Comments in Docket No. 25-311, filed May 26, 2026 at n. 32.

and upgrades, along with ensuring affordable end-user rates in rural areas. It is not yet time for the Commission to suggest that the Section 254(b)(3) and (b)(5) mission has been (or will soon be) fully accomplished.¹⁰

II. Updating the Support Mechanisms – the Three Paths Forward

The *NPRM* does not offer any specific proposals for reforming the High Cost Program.

Rather, the *NPRM* suggests three broad options:

“(1) we could update these high-cost support mechanisms to align with the current landscape; (2) we could establish a new single modernized fixed-support mechanism replacement; or (3) we could take no further action and maintain the *status quo* for legacy support mechanisms and allow the A-CAM support mechanisms to sunset.”¹¹

It is difficult for WTA to assess the merits or public interest ramifications of these potential solutions without knowing a lot more about the specifics of how they might be designed and how they would operate. For starters, with regard to the third option, what would happen to the companies receiving A-CAM support? Would they be given the option to either go back to the legacy, cost-based Connect America Fund Broadband Loop Support (“CAF-BLS”) and High Cost Loop Support (“HCLS”) mechanisms, or alternatively select another previous or new Enhanced-ACAM offer? Or would they simply no longer receive any high-cost support? If the

¹⁰ Cf., *NPRM* at ¶ 20 (“With competitive voice and broadband options available in these rate-of return areas and \$42.5 billion currently dedicated to any areas that are not already served, how should the Commission leverage its high-cost mechanisms to advance universal service principles while promoting the efficient expenditure of finite federal resources?”).

¹¹ *NPRM* at ¶ 21. The *NPRM* also proposes in paragraph 28 providing a two-year extension of the ACAM-1 support, which is currently scheduled to terminate at the end of this year. WTA supports this proposal, because it would avoid disruption, and would have little impact on the fund given the limited number of ACAM-1 companies. *NPRM* at n. 26.

latter, such a result would clearly be inconsistent with Congress' Section 254(b)(3) and (b)(5) directives to the Commission.¹²

With regard to the second option of establishing a single fixed-support mechanism, WTA is doubtful that a "one-size-fits-all" single model will work. Some carriers at each opportunity to elect a particular model-based support program have accepted that offer, while others have declined the offer. With regard to WTA's members, roughly half made the decision not to accept the previous Commission offers of model-based support, while roughly half of them did elect to switch over to the various model-based support programs. Nor is it apparent that there would really be much in the way of administrative savings from going to a single model.

WTA also believes it is not clear whether the Commission (even with industry help) would be able to develop a single-model solution that satisfies the goals of Section 254(b)(3) and (b)(5) for all the varying rural service areas in a manner that meets the concerns of the rural carriers. However, in order to have any chance of doing so, the Commission must first understand why a significant number of rural local exchange companies elected not to receive model-based support under the Commission's prior offerings, and design a new program that addresses those concerns.¹³

¹² As discussed in greater detail below, the Commission's potential reliance on low-Earth orbit ("LEO") satellite service availability in the ACAM carriers' territories (*NPRM* at ¶¶ 18, 31, 41) would not be reasonably comparable to broadband service in urban areas, nor would it be reasonably comparable in price. See pp. 16-23, *infra*.

¹³ The *NPRM* is also unclear as to whether the "new single modernized fixed-support mechanism replacement" under option (2) would also apply to companies that previously accepted the Commission's Enhanced-ACAM offers. Elsewhere in the *NPRM* the Commission indicated that: "A third category, ***not addressed in this Notice***, are mechanisms such as Enhanced A-CAM under which formerly rate-of-return carriers receive model-based support

As for the first option of updating the current support mechanisms, WTA first notes that these current programs have been successful in supporting and modernizing service in rural areas. And there clearly is a continuing need for support in rural areas to help recover the operating expenses and the deployment of new facilities and services (including the transition to all-IP networks) in order to ensure that both rates and services in rural areas are reasonably comparable to those in urban areas. But WTA agrees that there are aspects of the current mechanisms that do need updating for a variety of reasons.

For example, the cost models need to be updated to reflect changing costs, some of which have decreased since the models were last updated (such as some electronics and transit costs), and some of which have increased (such as the costs of some electronics and the cost of fiber due to data center demand). In addition, rural companies also have additional “unfunded mandates” that have been imposed upon them.¹⁴

The Commission should also want to update the use of 100 Mbps download and 20 Mbps upload as the minimum speeds that carriers must deploy under some of the universal

and have ongoing buildout obligations, and the mechanisms serving carriers that traditionally received support pursuant to price-cap regulation.” *NPRM* at ¶ 8 (emphasis added).

¹⁴ These include: excessive and redundant reporting burdens (such as duplicative Broadband Data Collection reporting); network resiliency requirements; cybersecurity obligations; broadband testing, which requires providers to purchase equipment or service to facilitate testing, as well as additional reporting requirements; STIR/SHAKEN, which requires providers to incur expenses to obtain the tokens, as well as the infrastructure required to comply with the requirements, further compounded by the related Robocall mitigation plans and plan tracking; Broadband Data Collection, which imposes reporting requirements as well as expense to gather the data and complete the challenges; monitoring (and challenging) the broadband data map; broadband pricing transparency and labelling requirements; Disaster Information Reporting System (DIRS) and Network Outage Reporting System (NORS) obligations; and state requirements to mark the locations of fiber in areas that will be under construction (such as a highway widening), as well as possibly having to absorb the cost of moving the fiber if necessary.

support mechanisms.¹⁵ More and more applications require higher speeds, and particularly for multi-member households that will be using different applications simultaneously, broadband with a speed of 100/20 Mbps will not be adequate. Consumers at home are now engaged in ever more linear video streaming, and requiring higher speeds to support the increased resolution for Full HD (15-25 Mbps download) or 4K Ultra HD (50+ Mbps download). And while still at the early stages of availability, some consumers are starting to watch 8K programs (requiring 100 Mbps download). Artificial Intelligence applications and multiple Internet-of-things will require higher upload and download speeds. Work-from-home, remote education and telehealth applications will also require faster upload and download speeds. And critically for rural areas, higher symmetric speeds will be necessary for on-line livestock auctions (which are less stressful on the animals) and precision agriculture.¹⁶

The Commission's Precision Agriculture Task Force Advisory Committee assessed the required broadband capabilities to support precision agriculture in its 2024 report.¹⁷ The Task Force indicated connectivity requirements of symmetrical bandwidth of 100 Mbps and latency targets below 10 milliseconds.¹⁸ As that Task Force determined:

The key drivers for achieving these connectivity goals include deploying fiber to farm and ranch premises and incentivizing the targeted expansion of high-performance

¹⁵ *E.g.*, *NPRM* at ¶ 24.

¹⁶ WTA notes that President Trump recently signed an Executive Order recognizing the critical role of precision agriculture. June 25, 2026 Executive Order “Advancing Regenerative Agriculture And Strengthening American Farm Resilience,” which noted that “Therefore, it is the policy of the United States to promote continued advances in precision agriculture technologies.” <https://www.whitehouse.gov/presidential-actions/2026/06/advancing-regenerative-agriculture-and-strengthening-american-farm-resilience/>.

¹⁷ *See*, <https://www.fcc.gov/sites/default/files/PATF-report-final-122324.pdf>.

¹⁸ *Ibid* at p. 48.

wireless connectivity. This approach aims to provide broad, umbrella-like coverage across the entire farm, free from line-of-sight restrictions.¹⁹

The *NPRM*'s suggestion of using 100/20 Mbps as the minimum capabilities for supported networks would appear to be insufficient for precision agriculture.

Whichever of the three paths forward (or some combination thereof) the Commission selects for the Further Notice of Proposed Rulemaking that will presumably follow the development of the record in this proceeding, WTA also urges the Commission to consider holistically all of the universal service support mechanisms. For instance, the Commission is considering in separate proceedings other support mechanisms and cost recovery/revenue streams that rural carriers utilize to upgrade, expand and operate their networks, while offering service to their customers at affordable rates.²⁰ The Commission must coordinate and harmonize all of these support mechanisms, rather than addressing them in a siloed fashion, to ensure that rates and services in rural areas remain reasonably comparable to rates and services in urban areas.

III. Potential Adjustments to Model-Based Support Mechanisms

As mentioned above, many of WTA's members declined the offer of model-based support. WTA held discussions with its members to find out why half the member companies chose not to accept model-based support. One of the reasons cited by numerous companies was that under the model-based support, the carrier would bear all of the risks, rather than

¹⁹ *Id.* at p. 50.

²⁰ *See* n. 8, *supra*. In addition, the Commission's proposal to classify all IP traffic as interstate could affect State USF programs, thus adversely affecting rural companies' cost recovery, particularly because many State USF programs mirror the Commission's. *In the Matter of Reforming Legacy Rules for an All-IP Future; Accelerating Network Modernization*, FCC 26-11, released February 19, 2026, at ¶¶ 64, 75 and 110.

sharing those risks with the other non-model-based carriers. The overall Connect America Fund Broadband Loop Support (CAF-BLS) and High Cost Loop Support (HCLS) programs are capped, and the per line support is also capped,²¹ but an individual company's support can be increased in the event of cost increases it incurs from things like skyrocketing fiber costs or natural disasters.²² In contrast, the model-based support a company receives is fixed.

Another reason cited by carriers for rejecting the cost-model offers is that while the cost model in many cases looked as if it fairly accurately predicted the deployment costs likely to be incurred,²³ other limits on the payments the carrier was to receive under the Commission's rules seemed unreasonable. As one example, the payments under the model-based support take into account the revenues the company receives (or is imputed to receive), and is intended to make up for the shortfall between the revenue and the modeled costs. However, the income

²¹ 47 C.F.R. §§ 54.302 -54.304.

²² The Commission acknowledged this issue in the Notice of Inquiry portion of its 2023 order regarding high cost universal service support programs, *Connect America Fund: A National Broadband Plan for Our Future High-Cost Universal Service Support, et al.*, 38 FCC Rcd 7040 (2023) at ¶ 178:

We also ask about *force majeure* events and whether and how a high-cost program focused on providing ongoing operating support should account for these events. Are there events that providers cannot reasonably anticipate, or insure against, that will materially affect the need for universal service support going forward? Are these location-specific events, or is it possible to accommodate support needed in responses to these events equally across the United States and territories? If the USF were to cover certain unforeseeable costs that a carrier could not reasonably anticipate, such as generally rare weather-related events (e.g., hurricanes, volcanic eruptions, tornados, floods), should we establish and administer a separate funding mechanism? Or would it be simpler to incorporate such costs in the broader universal service program? We also seek information about the role private, commercial or government insurance can play in helping to offset the financial harm caused by these events.

²³ However, the cost model would need to be updated to reflect higher costs currently for labor, fiber and some electronics, given the significant increase in demand for these inputs by data centers.

that is imputed to the company is based on assumed rates charged to the customers and assumed take rates, and those assumed values may appear unrealistic to many companies. For example, there is an assumed take rate of 70%, which is unrealistic and based upon outdated take rates using the actual number of voice customers that were also taking broadband service instead of based upon the percentage of broadband serviceable locations that actually subscribe to broadband service.²⁴ Moreover, the assumed take rate is applied to the number of units in the area, not the number of occupied units. And not surprisingly, it is very difficult to sell service to a vacant commercial location, home or farm, or to the rocks and haybales that also are included as locations on the National Broadband Map.²⁵ Finally, for some members, they had concerns about the model-based payments being insufficient to be able to repay long-term loans the carriers have taken out/or would be taking out to cover the actual costs of building and maintaining the network.

The *NPRM* also seeks comment on what to do about the hardest-to-reach locations.²⁶ WTA appreciates the need to limit USF expenditures, and that for some locations the cost of extending fiber would be exceedingly high. In those instances, it would make sense to consider

²⁴ The *NPRM* also suggests potentially tying payments to a carrier actually obtaining a take rate of at least 70%. *NPRM* at ¶ 26 (“Given the focus on improving performance incentives, should we structure the offer so that full support is only received once certain performance objectives are achieved, e.g., broadband adoption rate is at or above 70%?”). But such a requirement would tie support to things beyond the control of the rural service provider which affect take rates, including demographics, the degree of competition, home and office occupancy rates and local economic conditions.

²⁵ On the other hand, the supported carrier is required to build out to every location, whether it is occupied or not, since it must be able to provide service within ten days upon request in order to be able to claim that a location is served. 47 U.S.C. §§ 641(14) and 642(2)(A).

²⁶ *NPRM* at ¶ 27.

using alternative technologies, even though they lack the speed, reliability and upgrade capability of fiber. And some of WTA’s members have deployed these alternative technologies until they are able to deploy more robust and resilient fiber optic technology. The *NPRM* mentions LEO satellite service, which for many applications might be technically “adequate” for these hardest-to-reach locations.²⁷ Alternatively, it may be possible economically to serve some of these hardest-to-reach locations using fixed radio service or lasers.²⁸ In any event, the Commission must determine an “exceedingly high-cost” threshold for such locations, and in doing so the Commission should evaluate the incremental cost of serving such sites, because if the rural telco is relieved of the obligation to serve that site, it saves the incremental costs of actually avoided construction of its network as a result of excluding the identified sites. Thus, any refined cost model must be able to calculate the incremental cost of serving these hardest-to-reach locations.

The *NPRM* additionally seeks comment on how the support mechanism(s) should treat locations where robust competition exists or there is an enforceable commitment to provide service.²⁹ As a general principle, WTA agrees that it makes little sense to create “synthetic competition”³⁰ by subsidizing a new entrant when there is already one or more “unsubsidized competitors” providing service meeting the required minimum speeds, maximum latency and

²⁷ But, *see* Section IV, *infra*. Moreover, it would not appear to resolve the issue of affordability of the service to these locations, as current commercial LEO satellite service pricing is not reasonably comparable to national benchmarks, and those LEO satellite service providers do not have any obligation to meet national affordability benchmarks.

²⁸ *E.g.*, <https://www.weforum.org/stories/2023/07/google-alphabet-taara-internet-service-villages/>.

²⁹ *NPRM* at ¶¶ 31-40.

³⁰ *United States Telecom Ass’n v. FCC*, 359 F.3d 554, 573 (D.C. Cir. 2004).

requisite reliability at that location. However, the Commission must take into account whether a provider has a commitment to actually provide service to the location – “availability” on the broadband map is not the same thing as an obligation as a carrier-of-last-resort/Eligible Telecommunications Carrier designation under Section 254 – including an obligation to provide voice service.³¹ Moreover, “availability” is not the same as affordability. Under the Commission’s high-cost support programs, there are limits on the amounts that a rural service provider can charge for its telephone and broadband services,³² but no similar obligations apply to these unsubsidized competitors presently. Finally, the Commission would need to explain what happens if that competitive provider decides to exit the market.

WTA also believes the Commission needs to clarify what would be considered an “unsubsidized competitor.” The current rules define an “unsubsidized competitor” in Section 54.5 of the Commission’s rules: “Unsubsidized competitor. An unsubsidized competitor is a facilities-based provider of residential fixed voice and broadband service that does not receive high-cost support.” But what about a mobile service provider that received support from the Commission under the 5G Fund for Rural America or the legacy Mobility Funds, but is now using that subsidized infrastructure to provide a fixed service? Or consider the case of a rural electric co-op that received low-interest loans from the federal government to build out its

³¹ WTA also notes that the broadband map reflects claimed, not actual capabilities. And in addition, WTA’s members have experienced significant inaccuracies in the map, while also finding it very difficult to have the Commission correct those errors. Hopefully the Commission will improve and streamline that process. *See, e.g., Public Notice*, “Broadband Data Task Force and Office Of Economics and Analytics Publish Specifications for Data Required to Restore Coverage and Announce Launch of Coverage Restoration Process,” DA 26-420, released April 29, 2026; *Establishing the Digital Opportunity Data Collection; Modernizing the FCC Form 477 Data Program*, FCC-26-33, released May 21, 2026.

³² 47 CFR §§54.313(a)(2) and (3).

electric network, but now uses that subsidized infrastructure to more cheaply deploy a fiber optic network. And what about LEO satellite services, which receive an implicit subsidy, because by statute the Commission is prohibited from auctioning off LEO satellite spectrum?³³ While it is not clear how valuable that “free” spectrum is really worth, by way of comparison terrestrial carriers have paid around \$220 billion to the U.S. Treasury for their Commission licenses at auction.³⁴ Indeed, Starlink itself recently spent nearly \$20 billion on the “secondary market” to acquire terrestrial spectrum for its direct-to-device service.³⁵ While the satellite spectrum is shared amongst LEO satellite systems, there is also significantly more spectrum made available to LEO satellite systems than terrestrial systems.³⁶ Although it may be difficult to quantify precisely the value of satellite spectrum, clearly that spectrum obtained for free from the Commission has very significant value. The Commission needs to assess whether a provider’s use of these various “subsidies” would disqualify the provider from being considered a true “unsubsidized competitor.”

In any event, to the extent the Commission decides it should end the obligation of the rural telco to serve such locations and reduce the subsidy amounts for that rural telco, as explained above with the hardest-to-reach locations, the reduction should be the incremental

³³ Under 47 U.S.C. § 765f, the Commission cannot use auctions to assign spectrum or orbits dedicated to global/international satellite services.

³⁴ <https://www.fcc.gov/auctions-summary>.

³⁵ SpaceX acquired spectrum from Echostar for \$17 Billion, <https://www.space.com/space-exploration/satellites/spacex-buys-usd17-billion-worth-of-satellite-spectrum-to-beef-up-starlink-broadband-service>, and made a second acquisition of spectrum from Echostar for \$2.6 Billion. <https://ir.echostar.com/news-releases/news-release-details/echostar-agrees-sell-full-unpaired-aws-3-spectrum-license>.

³⁶ By way of example, SpaceX has been authorized by the Commission to operate in some 17 GHz of spectrum in the Ku-, Ka-, V-, E-, and W-bands.

costs of serving that location. Finally, in discussing whether to reduce support for locations already served by a competitor, the *NPRM* uses the phrase “technology neutral.”³⁷ WTA contends that “technology neutral” should not mean treating all technologies as equivalent.³⁸ The characteristics and capabilities of technologies may differ, and the Commission should take into account differences in reliability, positive externalities, affordability, long-term costs and viability in assessing whether a proposed technology can meet the Commission’s speed and latency standards, as well as the customers’ needs. All of these considerations affect whether the service is reasonably comparable to services in urban areas.

IV. Satellite Broadband Service Availability and Impact

The *NPRM* also seeks comment on how satellite broadband service affects the Commission’s assessment of various issues in this proceeding.³⁹ WTA acknowledges that there have been significant advances in LEO satellite system capabilities since the Big LEO and Little LEO systems were launched in the 1990s. And there are many roles that modern LEO satellite systems are particularly capable of fulfilling, including restoration after disasters, mobile applications (aircraft, ships, RVs), back-up for critical applications/facilities, and

³⁷ *NPRM* at ¶ 37.

³⁸ By way of example, the Commission’s broadband subsidy programs currently specify a round-trip latency requirement of no more than 100 milliseconds. The result of that latency requirement is to exclude geostationary satellite services. And yet if geostationary satellite service was eligible under the notion that you must treat all technologies as equivalent in order to be “technologically neutral,” then consumers’ ability to use real-time applications, including VoIP, video calling, distance learning applications, telehealth applications and online gaming would be adversely affected. Specifying particular broadband speeds or other characteristics in order to ensure that critical applications can be supported is functional (and good policy), not being “technology un-neutral.”

³⁹ *NPRM* at ¶¶ 41-43.

interim service while more robust services are being deployed.⁴⁰ But it is not the “magic solution” to the problem of providing robust, reliable and affordable broadband to the locations in rural America that still lack such service. And WTA is concerned that expanded reliance on satellite broadband to fulfill the universal service goals and obligations will further exacerbate rather than solve the digital divide, relegating a large swath of rural customers to a second-class service, while denying these areas the economic development opportunities that are inherent with more robust broadband services.

The *NPRM*’s discussion of LEO satellite broadband fails to take account of the positive externalities of fiber, including importantly for rural areas the ability to support precision agriculture⁴¹ and wireless backhaul.⁴² Moreover, WTA has concerns with regard to the robustness and reliability of LEO satellite broadband. A LEO satellite system’s licensed

⁴⁰ And as discussed above, LEO satellite service may also be a possible answer to meet the needs for the hardest-to-reach areas. *See* pp. 12-13, *supra*.

⁴¹ As the Commission’s Task Force for Reviewing the Connectivity and Technology Needs of Precision Agriculture noted at pp. 67 and 68 of its report (<https://www.fcc.gov/sites/default/files/PATF-report-final-122324.pdf>):

We recommend integrating fiber with edge computing resources to create highspeed connections to cloud services, enhancing data throughput and processing. This setup will enable a robust ecosystem of wireless technologies that support IoT devices for farm management, with satellite technology serving as a backup to ensure continuous connectivity in case of disruptions. ... While this [LEO satellite] technology aims to improve connectivity and data usage, its effectiveness depends on factors such as network reliability and the successful deployment of supporting infrastructure. As a result, satellite internet is a promising solution but is not yet fully capable of addressing whole-farm connectivity challenges, particularly in areas requiring real-time data for Precision Agriculture.

⁴² *Cf.*, IIA § 60102(a)(1)(I), which defines a priority broadband project as one that can: “[E]nsure that the network built by the project can easily scale speeds over time to— (I) meet the evolving connectivity needs of households and businesses; and (II) support the deployment of 5G, successor wireless technologies, and other advanced services.”

spectrum is shared amongst all that system’s customers within a satellite’s footprint, so there are limits on how many customers within that footprint can be served simultaneously before the speeds drop noticeably.⁴³ The largest LEO constellation currently -- Starlink (a subsidiary of SpaceX) – periodically imposes significant surcharges to sign up for service in congested areas, and in some locations it has stopped taking on new subscribers.⁴⁴ And this problem of a system

⁴³ A study of Starlink capacity limits was submitted to the Commission by the Fiber Broadband Association and NTCA in connection with Starlink’s RDOF application, and is available at <https://www.fcc.gov/ecfs/document/10208168836021/2>. That study was updated earlier this year, and has apparently been shared with State broadband offices, but not published publicly. See, <https://fiberbroadband.org/wp-content/uploads/2025/01/4Q24-FBA-CEO-Update.pdf>. Ookla observed this effect of shared capacity in connection with Starlink speeds being slowed at the Burning Man festival. https://www.ookla.com/articles/starlink-slows-down-during-burning-man?utm_source=Ookla%20Insights&utm_medium=email&utm_campaign=Express_2025-09-04_13:00:00&utm_content=Starlink%20Slows%20Down%20during%20Burning%20Man.

⁴⁴ While we cannot vouch for the accuracy of any AI responses, we note that when asked recently (July 26, 2026) “Are there areas in the United States where Starlink is not accepting new customers?” Grok AI responded:

Yes, in a limited sense—primarily through capacity management tools rather than outright refusals in most places—but Starlink is generally accepting new residential customers across nearly the entire United States as of mid-2026.

Starlink previously used waitlists or “sold out” designations on its availability map in high-demand areas (e.g., parts of the Pacific Northwest like Seattle/Portland, Texas around Austin, California cities, Arizona/Phoenix, Florida, Tennessee, and others in 2024–early 2025) when local network capacity was constrained.

Key updates:

SpaceX removed the residential waitlist across the US around May 2025.

By February 2026, it eliminated waitlists in all markets where service is available globally.

In place of waitlists, Starlink applies a **one-time demand surcharge** in certain high-demand locations when purchasing or activating new service (or in some cases when changing service addresses or resuming from Standby). This fee varies by area and plan (examples reported in the past have ranged from a few hundred dollars up to \$750–

like Starlink limiting speeds or discouraging new customers will also be exacerbated, because the LEO satellite broadband spectrum must also be shared amongst the other LEO satellite systems, thus further limiting capacity as more of these systems become operational and/or expand.⁴⁵ And while it is theoretically possible for additional spectrum to be allocated to LEO

\$1,500 or more in saturated zones) and is meant to manage capacity while still allowing new sign-ups.

The official availability map (starlink.com/map) currently categorizes areas mainly as “Available” or “Coming soon.” It no longer widely displays “sold out” or waitlist status for the continental US in the way it did previously. You can check a specific address there for the latest status, speeds, and any applicable surcharge.

Limited exceptions

- **Radio quiet zones:** The National Radio Quiet Zone (parts of West Virginia and Virginia) and a similar area in New Mexico historically restricted service to protect radio astronomy. As of late 2024, Starlink engineered solutions allowing service for ~99.5% of residents in the NRQZ. A very small remaining portion closest to sensitive facilities may still have restrictions.

Very localized capacity cells or regulatory constraints can occasionally appear, but these are rare and not widespread “no new customers” zones across states or regions.

Service is available in all 50 states (plus territories where authorized), though performance and pricing can vary with local demand and density.

Bottom line: There are no large geographic areas in the US where Starlink is broadly refusing new residential customers. High-demand spots may require a surcharge, and tiny restricted zones (mainly residual quiet-zone pockets) exist, but the service is open for new orders essentially nationwide. Always verify with the official map and order flow for your exact address, as capacity and fees can change.

⁴⁵ 47 C.F.R. § 25.261. Although LEO satellite systems from subsequent processing rounds must not cause interference to previous processing round licensees, that protection sunsets ten years after the first authorization of that earlier processing round. *Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems*, 39 FCC Rcd 12656 (2024)(NGSO FSS systems will be entitled to protection from systems approved in a subsequent processing round until ten years after the first authorization or market access grant in that subsequent processing round). Thus, first round licensees like Starlink currently share spectrum equally with other first round licensees, but will lose their spectrum-sharing priority

satellite uses, the global spectrum allocation procedures typically involve the long and tedious process of going through multiple ITU World Radio Communication (“WRC”) Conferences (held four years apart), which also require the cooperation and consent of well over 100 countries (since the WRC Conferences operate by consensus, and typically 150 countries participate in those conferences).⁴⁶ Thus, additional global allocations of satellite spectrum are unlikely to arrive in the near term, if at all. Given these capacity concerns, WTA urges the Commission to apply the rigorous performance measurement requirements to LEO broadband service that it applies to rural service providers presently.⁴⁷

over subsequent LEO licensees in less than two years, since Starlink was authorized on March 29, 2018. See, <https://docs.fcc.gov/public/attachments/FCC-18-38A1.pdf>

⁴⁶ While the United States could allocate spectrum to LEO satellite services on a non-conforming basis for operations in the U.S. (ITU Radio Regulations No. 4.4), it is not clear that it would be economical (or practical) to incorporate new frequencies that could be used over only a small portion of the satellite system’s capacity at any one time. The United States comprises less than 2% of the Earth’s surface, and while U.S.-registered aircraft and ships could also use such U.S.-only allocated frequencies on a non-interference basis while in international airspace or waters, there are a limited number of those potential customers.

⁴⁷ *Connect America Fund*, 33 FCC Rcd 6509, released July 6, 2018 (“2018 Performance Measurement Order”)(the 2018 Performance Measurement Order required that 95% of latency measurements during testing windows fall below 100 milliseconds round-trip time, and that 80% of speed measurements be at 80% of the required network speed, with testing conducted during peak periods, and from the customer side of any network equipment that is being used); *Connect America Fund*, 34 FCC Rcd 10109, released October 31, 2019 (“Performance Measurement Reconsideration Order”). WTA notes that at present Starlink’s website apparently provides information on median speeds and supposedly during peak periods. E.g., <https://starlink.com/updates/network-update>. Likewise, Ookla reports data on Starlink performance based on median speeds. <https://www.ookla.com/articles/starlink-hits-new-us-highs>. But as the Commission noted at ¶ 54 of the 2018 Performance Measurement Order:

A speed standard relying on an average or median value would not ensure consistency of speed because the distribution of values around the median may vary significantly. A carrier could meet such a standard by ensuring that the average or median speed test meets a target speed, while not providing sufficiently fast service nearly half the time or to nearly half its subscribers in locations supported by universal service. We therefore conclude that the 80/80 standard we adopt herein is a better measure of comparability and high-quality service.

Additionally, WTA notes that another solution to the capacity limits is to launch more satellites. However, to the extent LEO systems launch and operate even larger constellations, that will exacerbate the problem of space traffic management. Collisions between satellites would not only eliminate those satellites' capacity, but the resulting debris cloud could disable many other satellites,⁴⁸ both further reducing capacity, and also leaving them unable to undertake collision avoidance maneuvers, thus leading to even more collisions.⁴⁹ Moreover, there is currently no global space traffic management system in place, and developing one would also require the cooperation of many other countries.

The Commission does not have to just take WTA's word with regard to these concerns. SpaceX has acknowledged these problems. In the context of its recent Initial Public Offering ("IPO"), SpaceX submitted its S-1 Form that, among other things, lists all of the risks an investor should consider before making an investment.⁵⁰ The Risk Factors section runs some 37 pages of fine print. And with respect to Starlink in particular, the Form S-1 Risk Factors indicates:

In our Connectivity segment, including Starlink broadband and Starlink Mobile, we face competition from terrestrial fixed network providers, mobile network operators, and other satellite providers, and our services may be less competitive in certain

⁴⁸ Satellites do not have much shielding, because they must be designed to burn up in the atmosphere upon re-entry (although debris does manage to strike the Earth's surface). *See, e.g.,* <https://www.nytimes.com/2026/07/31/world/asia/space-debris-falling-crashing-earth-risk.html?smid=nytcore-ios-share>. As a result, the debris from a prior collision can disable many additional satellites.

⁴⁹ This chain of events is known as the Kessler effect. https://en.wikipedia.org/wiki/Kessler_syndrome#:~:text=At%20higher%20densities%2C%20production%20exceeds,known%20as%20the%20Kessler%20syndrome.

⁵⁰ *See*, <https://www.sec.gov/Archives/edgar/data/1181412/000162828026036936/spaceexplorationtechnologi.htm> at pp. 26-63.

markets, including dense urban areas where terrestrial fiber and wireless networks may offer higher capacity, lower cost, or more consistent performance.

* * * * *

Consumer acceptance may also be hindered by the presence of well-established terrestrial broadband alternatives, as well as lingering perceptions regarding service reliability, latency, and the complexity of satellite-based internet compared to traditional fixed-line solutions.

* * * * *

As the number of satellites and other objects in Low-Earth Orbit continues to grow, the probability of accidental collisions, fragmentation events, or other in-orbit incidents increases, which could result in the loss or degradation of our satellites, increased costs for collision avoidance maneuvers, or the need to replace or reposition assets on an accelerated schedule.

* * * * *

The increasing militarization of space and the potential development of space-based warfare capabilities may expose our assets and operations to heightened geopolitical and security risks, including the risk that foreign governments or other actors could target our satellites or related infrastructure. Certain foreign governments have publicly discussed the potential use of anti-satellite weapons against the Starlink constellation.⁵¹

On top of those admitted Starlink risks, the SpaceX IPO makes clear that the company as a whole faces significant risks (*e.g.*, AI privacy, data security, copyright infringement), and those risks that could affect the viability of SpaceX as a whole could also threaten the viability of Starlink by increasing its borrowing costs.⁵²

Finally, WTA observes that the global coverage provided by LEO satellite systems is both a blessing and a curse. Service is potentially available almost everywhere on the planet.

⁵¹ These latter risks highlight the national security ramifications of significant reliance on LEO satellite broadband to serve the connectivity needs of large portions of the country, given the risk of disruption malign actors could inflict on the satellite networks. And they would not need to infiltrate U.S. territory to cause such damage to our communications infrastructure.

⁵² See, *e.g.*, <https://www.nytimes.com/2026/07/09/opinion/spacex-ipo-investment-smart-dumb-money.html>; <https://www.washingtonpost.com/technology/2026/07/27/musks-spacex-tumbles-back-earth-dragging-tesla-down-with-it/>.

But 70% of the Earth's surface is covered by oceans, and there are relatively few potential customers in the ocean (ships at sea, aircraft in flight, oil platforms). Thus, for the majority of the time, much of the system's capacity lies idle. Moreover, the satellite constellation needs to be replaced every seven years or so. All of which makes for challenging economics. As an analogy, the investment requirements would be like building a 1,000-room hotel every seven years (then tearing it down and replacing it), but while operating that hotel you can only rent out 350 of the 1,000 rooms. Moreover, Starlink needs to deal with regulatory authorities in 150 or more countries, some of whom will insist on locating a gateway earth station within their country, not an insignificant cost. It is little wonder that the earlier LEO satellite systems – Globalstar, Iridium and ORBCOMM – all went into bankruptcy. The capacity constraints, operational complexities and financial challenges suggest that it would not be wise for the Commission to rely on LEO satellite broadband as the general, long-term answer to broadband availability and affordability that meets the Congressional directives of Section 254(b)(3) and Section 254(b)(5).

V. Conclusion

WTA appreciates the Commission's need and desire to re-examine the High Cost Program in light of the imminent end of the ACAM-1 program. But in doing so, it should not look at the High Cost Program in isolation, but must address in a holistic manner the various universal service support and cost recovery mechanisms to ensure that rates and services in rural areas continue to be reasonably comparable to those in urban areas, and that universal service support remains specific, predictable and sufficient, all as Congress directed. These various support programs go back nearly a century, but they reflect the fact that the nation as a

whole benefits when everyone is connected via robust and reliable modern communications services at affordable rates.

Respectfully submitted,

WTA – ADVOCATES FOR RURAL BROADBAND

/s/ Derrick B. Owens
Derrick B. Owens
Senior Vice President of Government
and Industry Affairs
400 Seventh Street, NW, Suite 406
Washington, DC 20004
(202) 548-0202

/s/ Stephen L. Goodman
Stephen L. Goodman
Regulatory Counsel
400 Seventh Street, NW, Suite 406
Washington, DC 20004
(202) 607-6756

Date: August 4, 2026