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

In the Matter of	)
	)
Report on the Future of the Universal Service Fund	) WC Docket No. 21-476
	)

COMMENTS
OF
WTA – ADVOCATES FOR RURAL BROADBAND

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

Gerard J. Duffy, Regulatory Counsel
Blooston, Mordkofsky, Dickens, Duffy & Prendergast, LLP
2120 L Street, NW, Suite 300
Washington, DC 20037
(202) 659-0830

Date: February 17, 2022

Table of Contents

Summary

WTA – Advocates for Rural Broadband ("WTA") believes unequivocally that the Commission's Universal Service Fund ("USF") continues to have a very critical – in fact, essential – future. In the likely event that the BEAD Program and the other Infrastructure Investment and Jobs Act and COVID-19 broadband infrastructure programs are not able to deploy robust and scalable fiber-to-the-home ("FTTH") broadband networks that provide 100/20 Mbps or better service throughout all of the nation's unserved and underserved areas, the Commission's High Cost Fund ("HCF") is needed to finish the job. And even when the ubiquitous FTTH deployment needed to close the Digital Divide and provide reliable 100/20 Mbps or better service throughout the nation is achieved, high-cost USF support will continue to be necessary to address the high per-customer maintenance and operating costs and recurring post-construction capital costs in rural areas. Such support will enable the deployed broadband networks to be sustained and will help to encourage continuing adoption and use by keeping broadband service rates as affordable as possible.

WTA urges the Commission to have its continuing HCF program strongly prefer and support FTTH as the most scalable and "future proof" technology alternative during a time when broadband speeds continue to grow at a precipitous pace with no sign of a let-up. FTTH also possesses major advantages due to its high service quality, availability, reliability, resilience and sustainability. The HCF program can deploy and sustain high-speed broadband most efficiently and effectively by making as much use as possible of existing fiber optic trunks and lines (rather than building new stand-alone broadband networks) to upgrade broadband speeds within existing service areas as well as to extend broadband into unserved and underserved areas.

Finally, WTA notes that reform of the USF contributions system is necessary. One option is the inclusion of broadband Internet access service revenues in the USF contributions base, which can be implemented under the existing Communications Act. Another non-exclusive option is the collection of USF contributions from companies that impose substantial costs upon broadband networks while profiting significantly from the existence of those networks. Either or both of these alternatives should be considered as an addition to or replacement of the current USF contribution system that is becoming more and more unsustainable.

Before the

FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Report on the Future of the Universal Service Fund	)	WC Docket No. 21-476
	)	

COMMENTS
OF
WTA – ADVOCATES FOR RURAL BROADBAND

WTA – Advocates for Rural Broadband ("WTA") comments in response to the Notice of Inquiry (*Report on the Future of the Universal Service Fund)*, WC Docket No. 21-476, FCC 21-127, released December 15, 2021 (*"NOI").*

WTA

WTA is a national trade association that represents more than 360 rural local telecommunications carriers ("RLECs") that provide voice, broadband and other services to some of the most rural, remote, rugged, sparsely populated, and expensive-to-serve areas of the United States. WTA members have long constructed and operated rural voice and broadband networks – very often as providers of last resort – in high-cost farming, ranching, mining, mountain, forest and desert areas, as well as on Native American reservations and other Tribal Lands. The typical WTA member company serves fewer than 5,000 customers per service area and has fewer than 50 employees.

All of WTA's RLEC members are Eligible Telecommunications Carriers ("ETCs") that receive federal high-cost support ("HCF") from the Universal Service Fund ("USF"). Approximately 45 percent have voluntarily elected to receive Alternative Connect America Cost Model ("ACAM") support when it was offered in 2016 ("ACAM I") or in 2019 ("ACAM II"). WTA's other RLEC members (approximately 55 percent) receive some combination of Connect

America Fund – Broadband Loop Support ("CAF-BLS") and High-Cost Loop Support ("HCLS"). Most WTA members receive Connect America Fund – Intercarrier Compensation ("CAF-ICC") support, and many also directly or indirectly receive funds from or participate in one or more other Commission-administered programs, including the Lifeline program, the Affordable Connectivity Program ("ACP"), the Schools and Libraries ("E-Rate") program and the Rural Health Care ("RHC") program.

WTA members and other RLECs have been prominent participants in the ongoing transition from a universal voice network to a universal high-speed broadband network. In 2007, the members of the Federal-State Joint Board on Universal Service declared that RLECs had done "a commendable job of providing broadband to nearly all of their customers" under the high-cost support system then in effect [HCLS and the former Interstate Common Line Support ("ICLS") mechanism].[1] Since that time, RLECs have continued to upgrade, operate and maintain their networks to provide the higher and higher broadband speeds required and demanded by their rural customers. These upgrades have generally consisted of extending existing fiber optic trunks further and further from RLEC central offices into outlying areas enabling more and more remotely situated customers to receive over hybrid fiber/copper loops the evolving 4/1 Mbps, 10/1 Mbps and 25/3 Mbps broadband service level commitments that the Commission has assigned to HCF recipients. During recent years, some RLECs have been deploying fiber optic facilities all the way to larger and larger portions of their customer homes and have been able to use this fiber-to-the home ("FTTH") technology to offer higher downstream and upstream speeds such as 100/20 Mbps, 100/25 Mbps, 100/100 Mbps and Gigabit services to increasing portions of their rural customers.

[1] Recommended Decision (*High-Cost Universal Service Support; Federal-State Joint Board on Universal Service)*, WC Docket No. 05-337 and CC Docket No. 96-45, FCC 07J-4, released November 20, 2007, at para. 30.

Infrastructure Investment and Jobs Act

The Infrastructure Investment and Jobs Act ("Infrastructure Act") includes several programs that can have significant impacts upon the Commission's USF programs and mechanisms. WTA will focus upon two of these: (1) the $42.45 billion Broadband Equity, Access and Deployment ("BEAD") Program; and (2) the $1.0 billion Middle Mile Broadband Infrastructure ("MMBI") Grant Program. WTA also notes that the $14.2 billion ACP is a very substantial and significant (albeit of limited duration) supplement to the Commission's Lifeline program that will help to make broadband services more affordable for eligible households.

BEAD Program. The BEAD Program constitutes a unique and invaluable opportunity to make substantial progress in the construction of robust and scalable last-mile networks capable of meeting rapidly growing broadband service needs in many more of the nation's unserved and underserved areas. While the BEAD Program is not likely to make robust and scalable broadband networks and services ubiquitous (the current program was reduced in size and scope from an initial $80 billion proposal), it has the potential to make major strides toward closing the digital divide and attaining the ultimate goal of universal access by all Americans to reliable and affordable high-speed broadband services.

It is absolutely clear that the BEAD Program is a broadband network infrastructure construction and upgrade program – that is, a wholly capital investment program in contrast to the USF's HCF mechanisms which are devoted in major part to the support of operating expenses as well as to the support of capital expenses. The BEAD Program is intended to fund on a priority basis the construction or upgrade of robust and scalable broadband facilities in areas that lack at least 25/3 Mbps service and then to fund on a secondary basis the construction or upgrade of robust and scalable broadband facilities in areas that lack at least 100/20 Mbps service.

Some WTA members that have not yet been able to provide 25/3 Mbps service to all of their service area will apply for BEAD grants for unserved areas to help them extend their fiber optic trunks all the way to the home to provide 100/20 Mbps and higher services. Many more WTA members will be seeking BEAD grants for underserved areas to extend their 25/3 Mbps or better networks to FTTH and 100/20 Mbps and higher speeds. Still other WTA members will be applying for BEAD unserved or underserved grants in order to extend their existing broadband networks into adjacent areas where residents have long been begging them for high-speed broadband services. WTA members hope to be successful in obtaining BEAD grants and believe that the National Telecommunications and Information Administration ("NTIA") and the states will recognize that awarding grants to extend and upgrade existing broadband networks is much more efficient and less expensive – and will let them accomplish much more with their BEAD dollars – than funding the construction of new stand-alone broadband networks.

Of course, at this time, it is far too early to predict – much less, to know – how NTIA and the states will distribute BEAD grants. Their ability to effectively and efficiently award BEAD grants to deploy robust and scalable broadband networks in as many as possible of the unserved and underserved areas that need them will determine not only the success of the BEAD Program but also the actions that the Commission will need to take to advance its USF goals.

MMBI Grant Program. The MMBI Grant Program can further advance broadband reliability, affordability and service quality goals by giving small and mid-sized broadband service providers in those of the Lower 48 states[2] that lack existing statewide or regional fiber transport

[2] WTA recognizes all eligible carriers should be able to apply for MMBI funding. WTA also recognizes that Alaskan broadband service providers have major problems with middle mile service availability, quality and cost and have long been forced to rely significantly upon expensive satellite middle mile service. Given that substantial reduction of Alaska middle mile issues is likely to exhaust most or all of the MMBI fund, WTA has focused on MMBI funding for the Lower 48 states in the hope that Congress, NTIA, the Commission and/or the Alaska state government can develop a middle mile solution suitable for the unique climate, terrain, transportation and other issues faced by Alaskan

networks the opportunity to obtain state-of-the-art, high-capacity middle mile routes to the Internet and to gain greater control over a major and growing operating expense as well as a barrier to the quality of their broadband services. Like the BEAD Program, the MMBI Program is not likely to solve entirely the middle mile service quality, capacity and cost issues that are increasingly and adversely impacting many RLECs and other small and mid-sized broadband service providers. However, the MMBI grants can reduce the size and scope of the middle mile cost and congestion problems that the Commission ultimately will need to address.

Critical Considerations: FTTH and OPEX

There is very little positive that one can say about the COVID-19 pandemic, but it has brought to the attention of the American people and policymakers the critical importance and need for a reliable and high-speed universal broadband network. During the various quarantine and social distancing periods, quality high-speed broadband service has been essential to support applications necessary for work and school from home, tele-medicine, home shopping, and a host of other economic and social activities. Time will tell how many of these COVID adaptations become permanent fixtures of economic and social life. But it is very clear that broadband is here to stay for the foreseeable future as the nation's predominant telecommunications and information network and that the broadband speeds demanded by more and more customers will continue to increase.

In analyzing and predicting the impacts both of the evolution of consumer broadband needs and also of the Infrastructure Act's BEAD and MMBI grant programs upon the future of the USF high-cost support mechanisms, two basic considerations stand out. First, the unrivaled superiority

broadband service providers. There have been indications that Alaskan companies may be able to obtain and use BEAD grants for middle mile projects.

of FTTH as the most robust, reliable and scalable broadband service technology requires a revision of the Commission's principle of "technology neutrality" to one of "technology complementarity" for high-cost support purposes. Second, even in the unlikely event that the $42.45 billion of BEAD grants and other Infrastructure Act broadband-related funding programs are successful in constructing robust and scalable 100/20 Mbps broadband facilities in all remaining unserved and underserved areas, the Commission's high-cost support mechanisms will still be required during the foreseeable future primarily to assist with the high maintenance and other per-customer operating expenses in rural areas, but also to help with recurring capital expenses such as those needed to replace damaged infrastructure.

Superiority of FTTH as a Broadband Technology

FTTH networks constitute the superior broadband technology alternative from the standpoint of reliability, availability, resiliency, service quality, scalability and sustainability.

The most compelling FTTH advantage is the scalability that makes it largely "future proof." Nothing would appear to be more critical when consumer broadband speed demands have risen during a relatively short period from kilobit levels to 4/1 Mbps to 10/1 Mbps to 25/3 Mbps to 100/20 Mbps and above with no indication yet that they are at or near their peak. It is thus a massive and decisive asset for FTTH networks to be able to be upgraded to provide higher speeds and symmetrical service by changing the electronics at each end of customer circuits rather than undergoing major new network construction or reconfiguration. For example, once a broadband network is extended to FTTH to provide 100/20 Mbps service to customer homes, its basic trunk and customer loop construction is complete and its broadband speeds can be increased to 100/25 Mbps, 100/100 Mbps and Gigabit levels without further expensive construction by changing the

electronics at both ends of the FTTH loop.[3] This absence of need to make major recurring investments in network construction and reconfiguration as broadband speed demands increase also makes FTTH networks much more readily sustainable in the long run.

Fiber optic networks also have substantial service quality and availability advantages. For example, their high capacities enable them to provide high-speed service to all customers who wish to use the network at the same time, rather than becoming subject to congestion and slowed speeds if more than a handful of customers attempt simultaneous use. Fiber networks also are able to retain a generally constant service quality and are not likely to experience frequent service degradation due to weather conditions, foliage on local trees, or line-of-sight issues.

Finally, buried FTTH networks can be more expensive to construct in some areas, but have reliability and resiliency advantages over aerial FTTH networks as well as fixed wireless networks. Particularly in areas where poles and towers are subject to damage from wind and ice storms and other severe conditions, buried fiber networks can normally remain operational when customers need service the most to understand, deal with and recover from storm damage and other emergencies. In addition, as societies increasingly rely on broadband networks for vital communications needs, physical security is likely to become a more important aspect of reliability and resiliency where poles, towers and satellites can become targets for intentional damage or destruction.

For all of these reasons, FTTH (and especially buried FTTH) is the clearly superior broadband service technology from all relevant reliability, availability, resiliency, service quality, scalability and sustainability standpoints, and it should be afforded substantial and decisive

[3] WTA notes that FTTH service speed increases are not without some cost, which includes new electronics, truck rolls and installation time. The point is that they do not entail the much higher costs of major outside plant or tower construction or reconfiguration.

preferences as the best long-term broadband solution in most instances and areas by the Commission's USF programs as well as by the Infrastructure Act programs.

In the Commission's case, this should entail a reassessment and revision of the "technological neutrality" principle adopted by it in 1997 as an addition to the statutory universal service principles set forth in Section 254(b) of the Communications Act. WTA submits that a revised or alternative principle of "technological complementarity" would be more appropriate, efficient and effective in light of the major changes that have occurred with respect to the evolution and growth of broadband services and bandwidth needs since 1997.

A "technological complementarity" principle would recognize that fixed broadband and mobile broadband are both used by a significant majority of consumers for a variety of differing uses and situations. WTA is well aware that the Mobility Fund is an important and complementary portion of the HCF and does not intend to discount the importance of its support for mobile voice and broadband services in rural areas. Whereas mobile broadband provides valuable flexibility when a customer is outside the home, FTTH and other broadband fiber optic facilities carry large volumes of traffic that would produce severe congestion on many mobile networks if such traffic had to be carried on them. In addition, fiber optic lines and networks provide essential backhaul transport for many mobile and fixed wireless broadband services. A further consideration in some rural areas is that it may not be economically or environmentally feasible for 5G mobile broadband service providers to construct and operate enough properly spaced towers outside towns and highway corridors to provide the promised levels and qualities of service.

A "technological complementarity" principle would not exclude fixed wireless and/or satellite broadband services from eligibility for HCF support. However, in most rural areas, the technological disadvantages of fixed wireless (*e.g.*, lack of scalability requiring substantial infrastructure upgrades and tower reconfigurations in order to meet increased speed demands,

capacity and congestion issues when significant simultaneous usage by customers, foliage and line-of-sight problems, and weather interference) and satellite (*e.g.*, geomagnetic storms, weather interference, capacity and congestion limits, security of global orbits, latency) preclude them from matching the service and upgrade advantages of FTTH.

Need for Continuing OPEX Support and Limited CAPEX Support

Completion of the Infrastructure Act's broadband construction projects – whether they succeed in deploying 100/20 Mbps FTTH broadband networks in some, most or all of the nation's unserved and underserved areas – will not terminate the need for the HCF and other existing Commission USF programs. Rather, continuing HCF support will be needed to maintain and operate both the actually existing broadband networks in high-cost rural areas and those upgraded or constructed with Infrastructure Act funds, as well as to address additional capital needs and costs that will arise during the useful lives of such networks.

Maintenance and other operating expenses constitute a substantial portion of current HCF support. Operating expenses are built into the ACAM support model and distributions, while eligible operating expenses comprise approximately 80 percent of the HCF received by HCLS/CAF-BLS recipients.

Even after FTTH networks are fully constructed, plant maintenance and installations and service calls remain substantial expenses in most rural areas. Line cuts and storm and animal damage can take substantial time to locate and repair when trunk and branch lines may extend for 20-to-30 miles or more into rugged and/or sparsely-populated areas. Even customer "drops" are frequently measured more in miles than in feet as farm and ranch buildings are rarely built right along the side of state and county roads. Hence, truck rolls for installations and trouble calls often mean long drives to and from a location and can be limited to 1-to-4 a day per technician.

The cost of middle mile transport is a substantial operating expense that is not presently included or recovered in HCLS or CAF-BLS support but that is imposing a greater and greater financial burden upon many RLECs over which they have little or no control. It is hoped that the MMBI Grant Program will enable consortia of RLECs to construct more statewide and regional fiber optic rings or other middle mile transport networks that will enable them to control and reduce their middle mile costs as well as to improve the quality, capacity and reliability of their middle mile transport. To the extent to which the MMBI Grant Program does not reduce or resolve middle mile problems in some states, the Commission will need to determine and provide an appropriate amount of continuing HCF support in areas that continue to be plagued by substantial and growing middle mile costs, or many RLECs will be forced to recover their middle mile costs via customer broadband rate increases that will adversely impact affordability and adoption.

Another substantial expense that is not currently supported by the HCF mechanisms is the cost of upgrading, operating and maintaining second mile facilities.[4] These are within the service areas and control of RLECs, but their costs are increasing substantially as broadband usage and traffic volumes grow.

Whereas the focus of the foregoing operating expenses is on the direct costs of running networks and providing actual broadband services, there are also significant indirect costs associated with the running of a broadband network that are substantial on a per-customer basis in most rural areas. These expenses include such costs as personnel and training, regulatory reporting and compliance, accounting, cybersecurity and privacy protection, customer service, and offices and vehicles.

[4] By "middle mile" facilities, WTA means the lines that connect last mile (i.e., local exchange) networks to the Internet or other high-speed trunks comprising the national broadband network. By "second mile" facilities, WTA means the lines that connect a service providers first points of aggregation (e.g., RLEC exchanges) to a point of connection with a middle mile transport provider.

Finally, while the useful life of fiber optic lines is expected to range from 20-to-30 years, some capital investments will continue to be necessary after the construction of a carrier's FTTH or other basic broadband network is completed. A significant post-deployment capital and operating expense can arise from requirements to relocate fiber conduits or lines due to road or bridge repairs or a government or property owner's modification or termination of a right-of-way or easement. Post-construction capital expenses can also arise for a host of foreseeable but unpredictable causes such as severe storm damage, new business or residential developments or customer locations, and accidental or deliberate line cuts.

The Post-Infrastructure Act Universal Service Fund

Even if the BEAD Program and other Infrastructure Act programs are massively successful in constructing and upgrading enough high-speed broadband networks to substantially reduce or close the Digital Divide, there will continue to be a need for Commission high-cost support mechanisms during the foreseeable future. Such support will clearly entail assistance with the high per-customer maintenance and other operating expenses needed to sustain rural broadband networks, plus some support for recurring capital expenses. Whether the Commission's HCF programs or further Congressional programs will need to support further construction or upgrade of network facilities in unserved and underserved areas will depend in large part upon the extent of the scalable and sustainable broadband network deployment achieved by the BEAD and other federal and state programs.

The Commission has stated its USF goals as universal deployment, availability, affordability, adoption and equitable access. WTA is supportive of the last three goals, but as an association of RLECs, it is much more familiar with universal deployment and availability issues and will focus primarily upon them. Whereas affordability, adoption and equitable access are very

important goals, they cannot be achieved unless all households (including low-income and otherwise disadvantaged households) have actual and effective access to a state-of-the-art and reliable physical broadband network that can provide the services, service quality and speeds that meet their broadband needs at rates they can afford.

Universal Deployment

Universal deployment should mean universal FTTH deployment in all but the very isolated and remote areas where it is prohibitively expensive. 100/20 Mbps is fast becoming the national standard for universal broadband service. The U.S. Department of Agriculture changed its eligible area criteria for its ReConnect Program to 100/20 Mbps last fall. At the end of last year Congress decided that areas lacking 100/20 Mbps were underserved for the purposes of NTIA's new BEAD Program. Finally, the Treasury Department updated its guidance for states making use of their American Rescue Plan funding for broadband purposes to prioritize areas lacking 100/20 Mbps. It is WTA's understanding that reliable 100/20 Mbps service requires FTTH.[5]

However, rather than relying upon a specific speed definition that will have to be continually updated for the purposes of the FCC's universal service goals, universal deployment should be measured in terms of the deployment of reliable and scalable FTTH technology. The scalable nature of FTTH will enable the service provider to meet the broadband speed and latency standards of any federal broadband program by increasing its offered broadband speeds to 100/25 Mbps, 100/100 Mbps and Gigabit levels by relatively lower-cost changes to electronics rather than by far more expensive extensions, modifications or reconfigurations of its basic physical network.

[5] Some will argue that fixed wireless or satellite services can achieve 100/20 Mbps speeds. That may or may not be the case in certain limited instances, but the critical question is whether 100/20 Mbps speeds can be provided and sustained when more than a handful of customers try to use the service at the same time.

As discussed above, FTTH also entails the substantial benefits of reliability, availability, resiliency, service quality and sustainability in addition to its critical scalability advantage.

The extent of 100/20 Mbps/FTTH deployment in high-cost rural areas will determine the degree to which the Commission's HCF mechanisms will need to support the capital costs of further broadband network construction and upgrades. At the present time, there are very significant unknowns as to the nature and extent to which the various broadband-deployment funded programs over the past several years (*e.g.*, BEAD Program, other Infrastructure Act and COVID relief programs, the Rural Utilities Service ReConnect Program, the CAF Phase II Auction and the Rural Digital Opportunity Fund ("RDOF") I Auction) will succeed in deploying sustainable 100/20 Mbps or better broadband networks. In the unlikely event that these programs will combine successfully to bring scalable 100/20 Mbps or better networks to all unserved and underserved high-cost areas, the future HCF should be able to focus primarily on operating expenses plus recurring capital expenses. On the other hand, in the more likely event that the foregoing programs are not successful in deploying ubiquitous scalable 100/20 Mbps/FTTH networks completely to all unserved and underserved high-cost areas, the HCF will (in the absence of new federal or state broadband construction programs) need to provide incentives and capital expense funding for the broadband network construction necessary to serve the remaining unserved and underserved areas.

WTA members and other RLECs receive high-cost support from the ACAM or HCLS/CAF-BLS mechanisms and have service level commitments generally at 25/3 Mbps (with some commitments at 10/1 Mbps or reasonable request levels). Some WTA members and other RLECs have already gone beyond these service level commitments to deploy FTTH with 100/20 Mbps and higher speed tiers in some or all of their exchanges. Others have been extending their

existing fiber trunks step-by-step to bring 10/1 Mbps then 25/3 Mbps then higher speed services to more and more customers while moving closer and closer to FTTH.

Some WTA members have applied for and/or received RUS ReConnect grant/loans while others plan to seek BEAD Program grants when they become available. Most such grants will be sought and used to extend existing fiber optic trunks and lines all the way to the home and to provide 100/20 Mbps or higher speeds via this FTTH. This BEAD, ReConnect and other funding will have no impact upon current ACAM support (which is based upon a model rather than investments or expenses), while the grant portion thereof will have no impact upon current HCLS/CAF-BLS support (because grants do not increase the rate base or result in any additional return on capital).[6]

To the extent that the Commission may need to use its HCF programs to bring eligible remaining unserved and underserved areas up to a scalable 100/20 Mbps/FTTH level, the most efficient and economical approach is to focus upon the extension and upgrade of scalable broadband facilities – in particular fiber optic trunks – to the maximum degree possible. RLECs have made this approach relatively easy and practicable for the Commission by the way that they have been gradually upgrading their networks via step-by-step extensions of their fiber optic trunks.

Availability, Reliability and Sustainability

Once the goal of a ubiquitous or near-ubiquitous 100/20 Mbps or better FTTH network is reached, the Commission should be able to transition its HCF program to a predominately operating expense recovery mechanism that also supports recurring capital expenses. This

[6] The loan portion of ReConnect grant-loans and the matching dollars for BEAD grants constitute investments that are included in the HCLS/CAF-BLS recipient's rate base and affect its return on capital.

transition will need to take into account repayment of the loans that carriers had to take out in order to pay for their 100/20 Mbps/FTTH deployment.

The key consideration here is that the upgrade of a rural broadband network to the 100/20 Mbps/FTTH level is not the end of the story. Rather, there must be continuing support for the high per-customer costs of maintenance and other operating expenses (including personnel, training, regulatory, accounting, customer service, office and vehicle costs) if the services provided by the network are going to remain available, reliable and sustainable. In addition, middle mile transport costs are a rapidly growing and potentially crippling expense for many RLECs that should be included in supported operating expenses.

In addition, completion of a network upgrade does not mean the end of all capital expenses. Rather, future HCF mechanisms will need to support continuing capital expenses for investments such as relocations of trunks and lines and replacement of damaged plant.

WTA has reiterated several times herein that the most effective and efficient way to deploy, operate and sustain the desired ubiquitous high-speed broadband networks is to make as much use as possible of existing scalable fiber optic facilities. This entails a concentration upon experienced broadband service providers and existing broadband networks and facilities. While the Commission can and should address the reasonableness of costs (as it does, for example, with its current rules limiting recovery of operating expenses), it should not use reverse auctions in the future to determine the recipients and amounts of HCF. Although the Commission has conducted the 2018 CAF Phase II Auction and the 2020 RDOF I Auction, one cannot yet reasonably estimate the degree to which they have been successful because the auction winners whose applications have been granted have not yet reached many of the intermediate performance milestones and end points that will indicate whether they will, in fact, be able to construct and deploy the broadband facilities and services they promised for the amounts of support that they bid. Many observers and

interested parties believe that some Commission reverse auction participants followed a strategy of placing unreasonably low bids in order to "win" certain auction areas and will consequently default prior to grant (which many have already done) or prove unable to meet their buildout and service obligations without waivers that will destroy the integrity of the auctions. Furthermore, whereas reverse auctions were initially advertised as a rapid way to get broadband projects approved and funded, that has not been the case as many applications of RDOF I auction winners remain pending over a year after that auction ended.

Affordability and Adoption

WTA members are predominately locally owned and/or locally managed companies that are very familiar with their rural service areas and the customers with whom they interact on a frequent basis. They fully recognize that a primary purpose of the HCF programs is to fund sufficient recovery of above-average costs so as to keep monthly customer rates as low and affordable as possible. Their local ties and presence have meant that many WTA members have worked very hard, and under very trying conditions, to install broadband connections in the homes of many new customers during the COVID-19 pandemic to enable residents to work or attend school from home or to ensure their abilities to conduct a telemedicine doctor's visit as smoothly as possible. In addition, WTA members participate in the Lifeline program and ACP, which provide discounts to make broadband services more affordable. WTA members have helped and encouraged their eligible customers to participate in both of these programs.

WTA does not have any proposals or recommendations at this time for changes in the Lifeline and ACP programs. Both RLECs and their eligible customers are dealing with the current revised Lifeline procedures and regulations and with the new ones for the ACP. The prudent approach is to let the programs operate for a year or so under their current arrangements, monitor

customer adoption and churn rates, and analyze the scope of and potential responses to any problems or complaints that arise.

USF Contributions Reform

The current USF contributions system, which is primarily based on interstate voice service, is not sustainable. Assessable voice revenues have been on a steady and predictable decline for many years. Twelve years ago, when the Commission approved its National Broadband Plan ("NBP"), these revenues were above $17 billion, while today they have dropped below $10 billion. Over the same period, demand for USF support has grown. This demand growth combined with reduced assessable revenue has resulted in a rising contributions factor – from 15% in 2010 to over 25% today. Last year, the factor rose to a record high of 33.4%.

Over that same 12-year period, the Commission modernized all four programs within USF so that they supported broadband, either through subsidizing the construction, upgrade and maintenance of networks or helping consumers, school, libraries and rural health care facilities afford broadband. While the modernization of the USF support programs envisioned by the NBP was addressed in significant part, the modernization of the contributions system was not. The NBP stated that there is an "emerging consensus that the current contribution base should be broadened" but little action was taken despite the predictability of the problem. Modernizing the contributions system to take into account the rapidly evolving broadband world in which we live will ensure the fund is predictable and stable, as the Communications Act requires, for years to come.

One option for modernization that the Commission has the authority to act on is to require broadband Internet access service revenues to be included in the USF contributions base. This would be fair and rational given that the vast majority of USF support goes toward supporting the construction of broadband networks and addressing broadband affordability issues. This could be done either by a contributions factor, as done with voice revenues today, or a flat per-connection

charge to all ISPs. According to a policy statement sent to the Commission by a group of public interest groups, communications companies, anchor institutions, and consumers, of which WTA was a part, including broadband Internet access service revenues would "lower the USF fee to less than 4% for the foreseeable future."[7]

Some argue that this would entail a pass-through to consumers who might not be able to afford an additional fee on their broadband bills. However, the policy statement referenced above cited an economic study showing that the imposition of a relatively small assessment on broadband Internet access service to support USF "would have no material impact on broadband adoption and retention." Regardless, any potential disincentive to purchase broadband could be avoided by either refraining from assessing revenues from households that participate in the Lifeline Program or ACP or forbearing from passing a charge along to those households on their bills. Even if all consumers were assessed equally, the costs would be mitigated as, presumably, fees on cellular and landline voice lines decline as the assessable revenue base is expanded.

Another option would be to assess for USF contributions the companies that impose substantial costs upon broadband networks while profiting significantly from the existence of those networks. For example, the advent of video streaming has required expensive upgrades to many broadband networks. Large, online retailers depend upon and profit off of a robust, high-speed ubiquitous Internet. Just like large trucks that pay more to ride our nation's interstate highway system because its construction, upgrade and maintenance enables them to conduct their business, so too could companies that send a substantial amount of traffic over the Internet help pay for its construction, upgrade and maintenance. While this solution would require Congressional action

[7] Repairing the FCC's Universal Service Fund Contributions Mechanism – A Call to Action, February 14, 2022. https://w-t-a.org/wp-content/uploads/2022/02/USF-Contributions-Policy-Statement-2.14.22.pdf

to provide the Commission additional authority, it is a solution the Commission should consider in this proceeding.

Some have suggested that the solution to the contributions problem is to rely upon Congressional appropriations to fund USF. However, Congressional appropriation cycles are anything but stable and predictable. The threat of uneven and untimely appropriations and even government shutdowns could make it very difficult for recipients of HCF support to make long-term investment decisions in costly broadband networks. In addition, USF is one of the few government-administered programs that pays for itself. It makes little sense to take what is, today, a self-funded program and add the costs to the national debt. For these reasons, WTA does not support Congressional appropriations to fund USF.

Conclusion

The clear answer to the basic question of this proceeding is "Yes": the USF continues to have a critically important future. In the likely event that the BEAD Program and the other Infrastructure Act and COVID-19 broadband infrastructure programs are not able to deploy robust and scalable FTTH networks that provide 100/20 Mbps or better service throughout all of the nation's unserved and underserved areas, the Commission's HCF program is likely to have to finish the job. And even when the ubiquitous FTTH deployment needed to close the Digital Divide and provide reliable 100/20 Mbps or better service throughout the nation is achieved, high-cost USF support will continue to be necessary to address the high per-customer maintenance and operating costs and recurring post-construction capital costs in rural areas. Such support will enable the deployed broadband networks to be sustained and will help to encourage continuing adoption and use by keeping broadband service rates as affordable as possible.

WTA urges the Commission to have its continuing HCF program strongly prefer and support FTTH as the most scalable and "future proof" technology alternative during a time when

broadband speeds continue to grow at a precipitous pace with no sign of a let-up. FTTH also possesses major advantages due to its high service quality, availability, reliability, resilience and sustainability. The HCF program can also deploy and sustain high-speed broadband most efficiently and effectively by making as much use as possible of existing fiber optic trunks and lines (rather than building new stand-alone networks) to upgrade broadband speeds within existing service areas as well as to extend broadband into unserved and underserved areas.

Finally, WTA notes that reform of the USF contributions system is necessary. One option is the inclusion of broadband Internet access service revenues in the USF contributions base, which can be implemented under the existing Communications Act. Another non-exclusive option is the assessment of USF contributions upon companies that impose substantial costs upon broadband networks while profiting significantly from the existence of those networks. Either or both of these alternatives should be considered as an addition to or replacement of the current USF contribution system that is becoming more and more unsustainable.

Respectfully submitted,
WTA – ADVOCATES FOR RURAL BROADBAND

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

/s/ Gerard J. Duffy, Regulatory Counsel
Blooston, Mordkofsky, Dickens, Duffy &
Prendergast, LLP
2120 L Street, NW, Suite 300
Washington, DC 20037
(202) 659-0830

Date: February 17, 2022