November 14, 2019

Via ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554


Dear Ms. Dortch:

The Fiber Broadband Association ("FBA") is writing in regard to the above-referenced docket and the performance tier weighting issues raised in comments and reply comments of the Wireless Internet Service Providers Association ("WISPA").

In its NPRM to establish rules for awarding funds via auction for the Rural Digital Opportunity Fund ("RDOF") program, the Commission proposed, to guard against widening the digital divide, "using weights to reflect our preference for higher speeds, higher usage allowances, and low latency," while maximizing its limited budget. The Commission invited parties to comment on its proposed weights, which provided a 50 point discount for the Baseline, Low Latency Tier, and to explain how their proposals would balance the competing goals. In response, FBA submitted studies demonstrating that: (1) the performance tier weights proposed by the Commission, which were largely derived from those used in last year’s Connect America

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3. NPRM at 6786-6787, ¶¶ 25, 27.

4. *Id.* at 6787, ¶ 27.
Fund Phase II auction, would not maximize participation by providers seeking to provide higher-tier services and thereby would enable bidders for lower-tier services to prevail at prices that were higher than optimal; (2) based on a study of consumer broadband use cases, high-speed, low-latency broadband services provide tangibly and materially greater amounts of socioeconomic benefits than lower-speed, higher-latency services; and (3) based on an aggregate evaluation of key broadband attributes—reliability, bandwidth, and latency—consumers received a substantially better experience over fiber and cable wireline service than over other fixed alternatives. Based on these studies, FBA asserted that the best way to balance the Commission’s competing goals is to increase the Baseline, Low Latency Tier discount to 70 points.

At the outset, while FBA’s mission is to accelerate the deployment of all-fiber networks throughout the country, it understands that individual providers develop their own business cases about what network technology to deploy. In fact, service provider members of FBA, while favoring all-fiber deployments, build and operate networks using different technologies, including fixed wireless, in the limited number of cases where an all-fiber network may not currently provide a sufficient return on investment. All-fiber networks are far superior in terms of performance, reliability, and durability, and they transition from using other technologies as soon as the fiber business case proves viable. The superiority of fiber networks is widely shared, even by fixed wireless providers. Thus, while in limited cases the economics may not currently

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6 Comments of the Fiber Broadband Association, WC Docket Nos. 19-126 and 10-90 at 3-6 (Sept. 20, 2019).
7 Id. at 6-13.
9 For instance, at this past month’s WISPAPALOOZA, the following session was held: Technical: Hybrid Wireless Fiber Networks When: 8-9 Thursday October 17th Why: We’re seeing through our research that more and more, WISPs are looking at fiber as a long-term service play. Fiber requires relatively higher amounts of capital investments but offers predictable high speeds and higher ARPU. WISPs in their aspiration to become full-service communication services provider increasingly build what is called hybrid networks. Such networks use both wireless as well as FTTP setups to deliver internet to both urban as well as rural communities. Join this session to learn more about this trend and how you can also take on the fiber journey. Available at https://www.preseem.com/2019/08/wispapalooza-2019/ (last visited November 11, 2019).

FBA also notes that at the recent National Tribal Broadband Summit, Chairman Pai lauded the use of federal universal service support by Golden West to connect over 90 percent of the locations in the Pine Ridge Reservation to fiber and by Wind River
favor all-fiber deployments, the end goal—to truly end the digital divide—should be to connect every household in the U.S. with fiber. Further, the Commission should view the RDOF (and performance tier weights) as a means to that end, consistent with the program’s budgetary limits.

In its comments and reply comments, WISPA alleged that the submission of FBA and others were “fundamentally flawed” in numerous ways. 10 Below we address each of these.

**WISPA Argument** – Fiber supporters “ignore the Commission’s clear goal to encourage participation by different types of technology.” 11

**FBA Response** – FBA appreciates the Commission’s objective to encourage participation by providers of all technologies in the auction. However, as demonstrated by FBA’s and others’ comments, 12 the weights proposed in the NPRM will not maximize participation by providers seeking to provide services at higher performance tiers. This will in turn permit bidders offering lower-performance services to win at prices that are higher than optimal, which both shortchanges consumers in eligible areas desiring higher-performance service and fails to maximize use of the Commission’s limited budget.

**WISPA Argument** – Fiber supporters “cite very specific local conditions and anecdotes as justifications for weightings and other restrictions that would be national in scope—a ‘one-size-fits-all’ policy for fixed wireless.” 13

**FBA Response** – FBA’s comments did not cite specific local conditions or provide anecdotes where fixed wireless service performed inadequately. Rather, it provided studies evaluating how consumers generally perceive various network technologies and offered performance tier weights based on those studies. (Below we discuss WISPA’s comments on those studies.) That said, one way to determine how consumer’s value technologies is to examine current connections by technologies and trends. According to the Commission’s most recent “Internet Access Services” report, of the total 90.7 million fixed connections of at least 10/1 Mbps in 2017, cable hybrid fiber/coax service had 64 million (70.6 percent), fiber had 13 million (14.3 percent), and fixed wireless had 484,000 (.5 percent), and of the total 73.3 million fixed connections of at least 25/3 Mbps in 2017, cable hybrid fiber/coax service had 57.9 million (79 percent), fiber had 11.5

Reservation to connect 849 homes and businesses. *See* “Remarks of FCC Chairman Ajit Pai at the National Tribal Broadband Summit” (Sept. 23, 2019) (“Those living on the Wind River Reservation will have the same super-fast broadband connections as those living in our nation’s big cities.”).

10 WISPA Reply Comments at 5.

11 *Id.*

12 *See e.g.*, Comments of ACA Connects – America’s Communications Association, WC Docket Nos. 19-126 and 10-90, at 5-6 (Sept. 20, 2019).

13 WISPA Reply Comments at 6.
million (15.7 percent), and fixed wireless had 145,000 (.3 percent). Further, based on data collected by RVA LLC, fiber connections are growing by millions annually, and almost 19 million homes were connected to fiber in 2018, which represented a take rate of 47 percent. Thus, it appears that consumers across the country have spoken about the technologies they prefer.

**WISPA Argument** – Fiber supporters “ignore the Commission’s performance requirements, which effectively address many of the issues identified by them as justifying exclusionary policies,” i.e., extensive deployment obligations.

**FBA Response** – While other fiber supporters may have raised issues about application requirements, FBA did not, although it believes that any participant in the auction should demonstrate the financial, technical, and operational capability to provide service at the performance tier for which it is bidding. FBA only addressed the proposed weighting methodology.

**WISPA Argument** – Fiber supporters “ignore the fact that WISPs would not be providing service to as many customers as they serve today if existing providers had been able to deploy fiber in any sustainable way to millions of unserved customers.”

**FBA Response** – As set forth in the Commission’s report discussed above, supplemented by the data from RVA LLC, today, for higher speed services, fiber provides approximately 100 times more connections than fixed wireless, and fiber is growing by millions of connections annually, with a large number of rural providers aggressively...

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14 “Internet Access Services: Status as of December 31, 2017,” Industry Analysis Division, Office of Economics & Analytics, Federal Communications Commission, Figs. 17 and 21 at 19, 21 (Aug. 2019) (“Internet Access Services Report”). The report does not contain data on connections at faster speeds. WISPA claims (at 6) that “fixed wireless provides broadband to over 4 million people.” However, it does not indicate how many connections it has, and according to data in the Commission’s report, most of these connections are at speeds above 3 Mbps/768 kbps and below 10/1 Mbps. Internet Access Services Report, Fig. 15, at 18. WISPA also does not indicate the take rate for fixed wireless service.


16 WISPA (at 7) alleges that “it could even be said that fixed wireless is a better technology than fiber given its evolving technology advancements,” but it provides virtually no support for this claim. In any event, fiber technology is evolving rapidly with 10G deployments underway and further developments already in the lab.

17 WISPA Reply Comments at 7.

18 *Id.* at 8.
deploying fiber. That said, fixed wireless technology fills a need where there is no business case to deploy fiber, and once there is, providers tend to shift to fiber.

**WISPA Argument** – “FBA’s [usage-case] analysis is simply irrelevant to the Commission’s inquiry. Even if the relative consumer values of the analysis could be taken as credible,[19] they would only show the ideal value of a use case to a consumer, but in no way show what the consumer would be likely to buy. . . . The statutory requirement of ‘reasonably comparable’ supported service does not mean some ideal speed that a fiber trade association wants to encourage in order to sell more fiber.[20] As the Commission has established, it means speeds that have some rational relation to what broadband subscribers actually buy.”[21]

**FBA Response** – FBA does not propose some ideal speed. Rather, the speeds it asserts customers want are in fact the speeds that customers are purchasing in increasing numbers, as indicated by current market data collected and published by the Commission. According to the most recent “Internet Access Services” report, of the 108.2 million fixed broadband connections in service in 2017, 40.6 million are at downstream speeds of at least 100 Mbps.[22] These high-speed connections increased by more than 4 times from 2014 to 2017. The tier with the next highest number of connections is the 25-100 Mbps tier, which started at 34.0 million connections in 2014, rose to 40.8 million connections in mid-2016, and then declined to 34.1 million connections by the end of 2017, which indicates that consumers are shifting from this tier to higher speed tiers. Connections in every other tier declined every reporting period between 2014 and 2017. Thus, the tier with the greatest number of connections—as well as the tier where connections are increasing most rapidly—is the above 100 Mbps tier. (There is not data in this report on tiers above 100 Mbps.) Moreover, these data are almost two years old. Given the trends—as further buttressed by the RVA LLC study discussed above—one would expect that approximately 66 percent of the connections today would be in tiers with speeds greater than 100 Mbps. And, of course, in a decade, when the RDOF program will be nearing its end, virtually all connections should be at least in 100 Mbps tiers, if not well above.[23] Accordingly, FBA submits that the Commission should not simply take a

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19. FBA asserts its analysis is credible. It welcomes further evaluation by Commission staff and other stakeholders, including WISPA, and is willing to engage in discussions to improve its methodology and results.

20. FBA is transparent about its membership and their interests and expects every stakeholder to be a vigorous advocate for its interests. Contrary to what WISPA seems to assume, the largest number of FBA’s members are not equipment vendors but are service providers, who purchase fiber to construct all-fiber broadband networks to provide the best broadband experience for consumers.


22. Internet Access Services Report, Fig. 3 at 5.

23. Another FBA study on the future of fiber deployments predicts that at least 50 percent of households will have access to all-fiber networks. See, Attachment (“All-Fiber
snapshot of the current market conditions in applying the “reasonably comparable” standard. Rather, its application of this standard should account for consumers’ expected performance requirements (subscriptions) at the end of the ten-year period.

In sum, FBA stands by its studies and its proposed performance tier weights, as further supported by the information contained herein. Should the Commission staff have additional questions, we are prepared to address them.

This letter is being filed electronically pursuant to Section 1.1206 of the Commission’s rules.24

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cc: Alexander Minard
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24 Deployment Cost Study 2019, Executive Summary”) to Letter from Lisa R. Youngers, Fiber Broadband Association, to Ms. Marlene H. Dortch, Federal Communications Commission, WC Docket Nos. 19-126 and 10-90 at 2 (Sept. 12, 2019). In addition, FBA notes that 80 percent of U.S. households already have access to 1 Gbps broadband service, which has increased from 5 percent in 2016. See “NCTA, Industry Data,” available at: https://www.ncta.com/industry-data/80-of-us-homes-have-access-cables-gigabit-internet-speeds (last visited November 11, 2019).

47 C.F.R. § 1.1206.