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

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
Universal Service Reform – Mobility Fund	)	WT Docket No. 10-208

OPPOSITION TO APPLICATION FOR REVIEW

The Rural Wireless Association, Inc. ("RWA") files this Opposition in response to an Application for Review filed by the regulated, wholly owned subsidiaries of Verizon Communications, Inc.[1] ("Verizon") following the release of the *Challenge Procedures Reconsideration Order*, in which the Federal Communications Commission's ("FCC" or "Commission") Wireless Telecommunications and Wireline Competition Bureaus (with the Rural Broadband Auctions Task Force, the "Bureaus") increased the buffer radius for the Mobility Fund Phase II ("MFII") challenge process from 250 meters to 400 meters.[2] The Commission should not vacate the *Challenge Procedures Reconsideration Order*, and should instead retain the buffer radius extension from 250 to 400 meters.

I. BACKGROUND.

On February 27, 2018, the Bureaus released a Public Notice establishing the procedures to be used in the MFII challenge process.[3] In that item, the Bureaus determined that speed test measurements submitted to support and/or respond to a challenge to an area that is initially deemed ineligible for MFII support must be no more than 500 meters apart from one

[1] Application for Review of Verizon, WC Docket No. 10-90, WT Docket No. 10-208 (June 21, 2018) ("*Verizon AFR*").
[2] *Connect America Fund, Universal Service Reform – Mobility Fund*, Order on Reconsideration, WC Docket No. 10-90, WT Docket No. 10-208, DA 18-427 (rel. Apr. 30, 2018) ("*Challenge Procedures Reconsideration Order*").
[3] *Connect America Fund, Universal Service Reform – Mobility Fund*, Public Notice, WC Docket No. 10-90, WT Docket No. 10-208, DA 18-186 (rel. Feb. 27, 2018) ("*Challenge Process PN*").

another. The Bureaus decided to assess challenges using a uniform grid with cells of one square kilometer and a "buffer" with a radius equal to one-half of the maximum distance parameter, i.e., 250 meters. On March 21, 2018, RWA submitted an *ex parte* letter containing detailed data regarding the burden a challenger would experience as a result of these decisions.[4]

The challenge process started on March 29, 2018, and was originally scheduled to conclude on August 27, 2018. However, Chairman Pai has directed the Bureaus to extend the challenge process deadline by 90 days.[5] Challengers are currently submitting the results of their speed tests (showing that qualifying 4G LTE service with download speeds of 5 Mbps is not available at a given location) to the Universal Service Administrative Company ("USAC") challenge process portal. After challengers submit their speed test data, the USAC system will draw a circular "buffer" around each speed test point. If the total buffered area in a grid cell exceeds 75 percent of the cell's challengeable area, then the system will deem the challenge to be presumptively successful with respect to that square kilometer cell. Challenged carriers will then have the opportunity to submit data rebutting the challenge.

On April 20, 2018, RWA provided additional information regarding the number of staff hours it would take to test areas of Oklahoma and Alabama using the Bureaus' initial parameters.[6] RWA's data showed that it would take six to eight full-time employees working 150 days just to collect the data needed to mount a challenge using the 250 meter buffer radius -

[4] *See generally* Letter from Caressa D. Bennet, General Counsel, RWA, and Erin P. Fitzgerald, Regulatory Counsel, RWA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 *et al*. (Mar. 21, 2018) ("*RWA Mar. 21, 2018 Ex Parte*") (focusing on challenges to certain ineligible areas in Alabama, Kansas, Montana, North Dakota, Oklahoma, and Wyoming).

[5] Letter from Ajit Pai, Chairman, FCC to Senator Roger Wicker (May 30, 2018),

[6] *See generally* Letter from Caressa D. Bennet, General Counsel, RWA, and Erin P. Fitzgerald, Regulatory Counsel, RWA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 *et al*. (Apr. 20, 2018) ("*RWA Apr. 20, 2018 Ex Parte*") (finding that it would take 7,522 hours (or 50 hours per day for each of the 150 days in the challenge period) to test claimed unsubsidized coverage throughout the Oklahoma Panhandle. The analysis found an even higher number – 11,623 hours (or 77 hours per day for each of the 150 days in the challenge period) – to test claimed unsubsidized coverage throughout Pine Belt Cellular, Inc.'s service area.)

a tremendous burden on small and rural carriers with small staffs and narrow operating margins.

On April 30, 2018, RWA submitted a third *ex parte* letter that provided data showing how many square kilometer grid squares would be unmeasurable using drive tests with a 250, 400, and 500 meter buffer radius. The letter also provided testing hours analyses showing how many hours it would take to test areas in Oklahoma and Alabama using each of the buffer radius lengths.[7] In addition, the *RWA Apr. 30, 2018 Ex Parte* demonstrated that, while a 400 meter buffer radius would be a significant improvement over the original 250 meter buffer radius, a 500 meter buffer radius would further alleviate the burden on prospective challengers.

On April 30, 2018, the Bureaus reconsidered its procedures and extended the buffer radius from 250 to 400 meters.[8] The Bureaus stated that "applying a…slightly larger buffer radius will significantly reduce the burden on potential challengers while not unduly compromising the Commission's interest in collecting accurate data that reflects consumers' experience."[9]

II. THE 400 METER BUFFER RADIUS IS CONSISTENT WITH THE COMMISSION'S CHALLENGE PROCESS RULES.

Verizon incorrectly argues that a 400 meter buffer radius is "inconsistent" with the Commission's speed test parameters described in the *MFII Challenge Process Order*.[10] In that order, the Commission required that the "specific value for the maximum distance between speed tests…will be no greater than one mile."[11] A 400 meter buffer radius yields an 800 meter (or half mile) distance between speed tests – a distance well below the one mile maximum distance

[7] *See generally* Letter from Caressa D. Bennet, General Counsel, RWA, and Erin P. Fitzgerald, Regulatory Counsel, RWA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 *et al*. (Apr. 30, 2018) ("*RWA Apr. 30, 2018 Ex Parte*")
[8] *Challenge Procedures Reconsideration Order* at ¶ 4.
[9] *Id*.
[10] *Verizon AFR* at p. 1, n. 3 (citing *Connect America Fund, Universal Service Reform – Mobility Fund*, Order on Reconsideration and Second Report and Order, WC Docket No. 10-90, WT Docket No. 10-208, FCC 17-102 at ¶ 51 (rel. Aug. 4, 2017) (*"MFII Challenge Process Order*")).
[11] *MFII Challenge Process Order* at ¶ 51.

between speed tests set by the Commission.[12] As such, a 400 meter buffer radius is consistent with the *MFII Challenge Process Order*.

Verizon repeatedly uses the term "sufficient density" in its Application for Review, noting that the *MFII Challenge Process Order* requires challengers to submit speed test measurements with "sufficient density" to "reflect actual consumer experience 'throughout the entire challenged area.'"[13] But the term "sufficient density" is never actually used in the Commission's *MFII Challenge Process Order*. Instead, *the Bureaus* use the term in the *Challenge Process Public Notice* to describe what *the Commission* did in the *MFII Challenge Process Order.* The term adds no additional meaning to the parameters put forth in the *MFII Challenge Process Order* – it merely describes action already taken. In particular, the Bureaus stated that the Commission decided

> that a challenger must submit actual outdoor speed test measurements with sufficient density to reflect actual consumer experience throughout the entire challenged area. Specifically, the Commission adopted a requirement that a challenger must take measurements that: (1) are no more than a fixed distance apart from one another in each challenged area; and (2) substantially cover the entire area.[14]

As discussed above, a 400 meter buffer radius meets the Commission's requirement that the distance between test points be no greater than one mile, and does nothing to change the 75 percent threshold set by the Commission to determine whether or not the speed tests "substantially cover" a square kilometer grid cell.[15]

Not only is a 400 meter buffer radius consistent with the Commission's challenge process rules, a 500 meter buffer radius would have been consistent as well. A 500 meter buffer radius yields a 1000 meter distance between speed tests – significantly less than the one mile

[12] *MFII Challenge Process Order* at ¶ 55, n. 162 (stating that the "system will apply a buffer with a radius equal to half of the maximum distance parameter").
[13] *See, e.g., Verizon AFR* at p. 4.
[14] *Challenge Process PN* at ¶ 19.
[15] *MFII Challenge Process Order* at ¶ 55.

(1,609.34 meters) maximum. In its *RWA Apr. 30, 2018 Ex Parte*, RWA urged the Commission to adopt a 500, rather than 400, meter buffer radius, noting that "mounting a challenge will remain a costly and time-intensive endeavor – even with a longer buffer radius than…250 meters," and that "even with a 500 meter buffer radius, it will take…approximately 19 hours per day for each of the 150 days in the [initial] challenge period." [16] AT&T, too, agreed that a 500 meter buffer radius would be appropriate.[17] Nonetheless, the Bureaus chose 400 meters. A 400 meter buffer radius is consistent with the Commission's challenge process rules, and while a 500 meter buffer would have been more RWA's preference, the 400 meter buffer strikes the right balance between a 250 meter and 500 meter buffer.

III. A 400 METER BUFFER RADIUS WILL IMPROVE CHALLENGE PROCESS DATA ACCURACY.

Verizon expresses misplaced concern that a 400 meter buffer radius will mean that test points "will be too far apart to produce a reliable picture of coverage in the challenged area" and that the Bureaus did not "analyze the impact of the larger buffer radius on the accuracy and reliability of the challenge process."[18] First, these concerns are unfounded. Verizon has provided no actual evidence that a 400 – rather than 250 – meter buffer radius will materially impact the accuracy and reliability of the challenge process. Further, as the record shows, an extended buffer radius will make for a more "robust" [19] challenge process and yield *better* data that more

[16] *RWA Apr. 30, 2018 Ex Parte* at p. 5.
[17] *Connect America Fund, Universal Service Reform – Mobility Fund*, Reply Comments of AT&T, WC Docket No. 10-90, WT Docket No. 10-208, at p. 4 (May 7, 2018) ("*AT&T Reply to Opposition*").
[18] *Verizon AFR* at p. 4.
[19] *MFII Challenge Process Order* at ¶¶ 1, 43 (stating that the Commission has fulfilled its commitment to design a "robust" challenge process, and encouraging eligible entities to participate "robustly in the challenge process" to ensure that the information about where service is or is not available is "as accurate as possible").

accurately reflects the consumer experience by making challenge process participation more technically feasible and far less expensive to undertake.[20]

The *RWA Mar. 21, 2018 Ex Parte* provided data showing that the use of a square kilometer grid cell with a 250 meter buffer radius would leave between 80 and 91 percent of grid cells in several members' service areas unmeasurable using drive tests. Additional data submitted by United States Cellular supports RWA's filing. Based on that data,

> using a one kilometer grid size along with a 250-meter buffer zone will make it impossible for any challenger to submit data to the Commission within the challenge window for 78% of the areas involved because they lack sufficient roads to achieve the Commission's 75% area requirement. To make matters worse, in areas where only a single unsubsidized carrier claims coverage (those areas most likely to bring a successful challenge), less than 4% of those areas have enough roads to reach the 75% threshold.[21]

Drive testing is expensive and technically challenging, but is still the most economical means of manually testing coverage. The only alternatives to drive testing are testing on foot, or via drones, horseback, four-wheeler, or crop duster. Given that most of the road-inaccessible challenge areas are on private property, permission from the landowner(s) is required to conduct speed tests – permission which is likely to be difficult (and sometimes impossible) to obtain. Even if permission can be obtained, such speed testing will be prohibitively expensive in most locations, causing many potential challengers who are unable to

[20] *MFII Challenge Process Order* at ¶ 43; *see also Connect America Fund, Universal Service Reform – Mobility Fund*, Reply of United States Cellular Corporation, WC Docket No. 10-90, WT Docket No. 10-208, at pp. 3-4 (May 7, 2018) ("*U.S. Cellular Reply to Opposition*") ("any small inaccuracies…will be more than offset by the increased accuracy that will accrue to the map by challengers having more opportunity to submit challenges – and a willingness to engage in the process. Even relatively small reductions in the cost of mounting a challenge will be more than repaid by increased participation in the challenge process, and a corresponding increase in map accuracy"); *see also AT&T Reply to Opposition* at p. 4 ("establishing a workable challenge process requires that the Commission strike an appropriate balance between the accuracy of speed test data and the burden of producing that data on potential challengers"); *see also Connect America Fund, Universal Service Reform – Mobility Fund*, Application for Review of the Rural Wireless Association, Inc., WC Docket No. 10-90, WT Docket No. 10-208, at pp. 6-9 (Mar. 29, 2018) ("*RWA AFR*").

[21] *U.S. Cellular Reply to Opposition* at p. 2.

conduct drive tests to forgo challenges altogether rather than incur such expense.[22] U.S. Cellular agrees, noting that "[w]hile the challenge process may not technically be limited to drive tests, it is completely impractical to conduct any other means of challenge (e.g., off-road excursions) on any sort of scale" and stating that the company will only be able to conduct drive tests on public roads.[23]

If the Commission vacates the *Challenge Procedures Reconsideration Order*, the initially-adopted 250 meter buffer radius would impose significant and unnecessary costs on prospective challengers, and allow overstated mobile wireless coverage to stand unchallenged in many places due to the cost-prohibitive nature of conducting off-road speed tests. [24] Moreover, many of the challenges that *do* take place will yield less accurate data (as tests conducted from the air can overstate the availability of 4G LTE service on the ground, where terrain and foliage often impede signal reception and data speeds) and fail to fully illustrate the consumer experience as desired by the Commission.

A longer buffer radius means that more areas will be measurable using drive tests. More areas that are measurable using drive tests means that more entities will be technically and financially capable of participating in the challenge process. More challenges will yield more accurate coverage data, not less.[25] The *RWA Apr. 30, 2018 Ex Parte* clearly shows the difference that an extended buffer radius will make to prospective challengers. RWA's data shows that it would take 7,522 hours to test claimed unsubsidized coverage throughout the Oklahoma Panhandle using a 250 meter buffer radius.[26] A 400 meter buffer radius significantly reduces the

[22] *RWA AFR* at p. 4.
[23] *U.S. Cellular Reply to Opposition* at p. 3.
[24] *RWA Mar. 21, 2018 Ex Parte* at p. 2.
[25] *MFII Challenge Process Order* at ¶ 43.
[26] *RWA Apr. 30, 2018 Ex Parte* at p. 3 and Attachment A.

hour total to 2,813.[27] Similarly, RWA's data shows that it would take 11,623 hours to test claimed unsubsidized coverage throughout Pine Belt Cellular, Inc.'s service area in Alabama using a 250 meter buffer radius.[28] A 400 meter buffer radius significantly reduces the hour total to 4,672.[29] AT&T agreed with RWA's findings, stating that "increasing the buffer radius to 500 meters will reduce the costs and burdens on prospective challengers, thus furthering the Commission's interest in improving the map of MFII-eligible areas."[30]

Presumptively successful challenges can be rebutted by the carrier claiming qualifying 4G LTE coverage, but if areas incorrectly claimed as covered are never challenged, those areas will bear the consequences for at least the next decade.[31] RWA agrees with U.S. Cellular that, if the Commission were to use the initial square kilometer and 250 meter buffer radius parameters, "vast areas are going to go untested either because, (i) it is impossible to conduct an adequate test, (ii) a diligent challenger does not have sufficient time or resources to undertake and complete necessary testing, or (iii) a company abandons the process because, after analyzing the size of the task and the limited opportunity for success, it cannot justify the undertaking."[32]

Verizon's concern, that with an extended buffer radius, rural carriers and other entities will be better able to test its purported coverage and mount successful challenges, is understandable, but such concern is not a rationale for vacating the Bureaus' *Challenge*

[27] *RWA Apr. 30, 2018 Ex Parte* at p. 3 and Attachment A.
[28] *Id.* at p. 3 and Attachment B.
[29] *Id.*
[30] *AT&T Reply to Opposition* at p. 4.
[31] *See U.S. Cellular Reply to Opposition* at p. 4 (stating that there "is an important public interest component to this challenge process. If this Commission is serious about accelerating broadband investment to areas that need it most, then it is critically important that areas needing investment are not blocked out due to maps that overstate coverage. Accordingly, a 'measure once, cut twice' policy will have significant and negative consequences to any community closed off from Mobility Fund II investment solely because the maps were flawed and the challenge process too onerous for potential challengers to implement corrections").
[32] *U.S. Cellular Reply to Opposition* at p. 3.

Procedures Reconsideration Order. A 400 meter buffer radius will improve and increase the amount of 4G LTE coverage data, and should be retained.

IV. A 400 METER BUFFER RADIUS WILL NOT RESULT IN WIDESPREAD SUCCESSFUL CHALLENGES OF AREAS THAT ARE SERVED BY 4G LTE.

Verizon states that the "revised challenge process could to [*sic*] result in widespread false positives, i.e., presumptively successful challenges of large areas that are in fact well-served by 4G LTE, particularly if providers cherry-pick test points with an aim of minimizing actual coverage."[33] Verizon's concerns are misplaced and unfounded.

First, Verizon suggests without evidence that prospective challengers may "cherry-pick" test points. Mounting a successful challenge is a tremendously demanding undertaking, and one that RWA members take seriously. RWA members have drive-tested *thousands of miles* already. In fact, one member has driven more than 37,000 miles since the challenge window opened in late March. The costs to perform exhaustive testing are significant – the same member estimates that its challenge process expenditures will exceed $800,000 and will not cover all areas.[34] The time and resources necessary to undertake challenges are best spent on areas where a challenge is most likely to be ultimately successful and there is little incentive for carriers to challenge areas that can be quickly disproved by a challenged carrier's response data.

Further, if a carrier finds that one or more of the challenges accepted by the USAC portal incorrectly depicts its unsubsidized 4G LTE coverage, the Commission has given that carrier the opportunity to respond.[35] The Commission's rules governing challenged carrier

[33] *Verizon AFR* at p. 1.
[34] Letter from Caressa D. Bennet, Counsel to Panhandle Telecommunication Systems, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 *et al*. (July 13, 2018).
[35] *Challenge Process PN* at ¶¶ 48-62; *see also AT&T Reply to Opposition* at p. 5 (stating "service providers like Verizon Wireless and AT&T Mobility will have the ability to respond to challenges with their own data, demonstrating that they do indeed provide 4G LTE at speeds greater than or equal to 5 Mbps download in the challenged area. This opportunity to refute challengers' data should help mitigate Verizon's data accuracy concerns").

responses are *far* less onerous than those governing challenger submissions. First, data submitted by a challenged party "will not be subject to the identical system validation process used for challenger speed test data."[36] Also, challenged carriers are able to skip the drive/app testing process altogether and instead use transmitter monitoring software to generate coverage data, an option that will save unsubsidized 4G LTE providers (primarily nationwide carriers) considerable expense and effort, especially when compared to the rigorous requirements placed on challengers.[37] What possible incentive do prospective challengers have to put forth illegitimate challenges when such challenges could be rebutted by the carrier claiming to provide unsubsidized coverage in that area? A 400 meter buffer radius will not result in widespread successful challenges of areas that are served by unsubsidized qualifying coverage, and for the reasons discussed above it should be retained.

V. CONCLUSION

For the reasons discussed above, RWA urges the Commission *not* to vacate the *Order on Recon*, and to retain the 400 meter buffer radius. RWA looks forward to its continued work with the Chairman, Commissioners, and Commission staff in this proceeding.

Respectfully submitted,

RURAL WIRELESS ASSOCIATION, INC.

By: */s/ Caressa D. Bennet*
Caressa D. Bennet, General Counsel
Erin P. Fitzgerald, Regulatory Counsel
5185 MacArthur Blvd., NW, Suite 729
Washington, DC 20016
(202) 857-4519
legal@ruralwireless.org

July 13, 2018

[36] *Challenge Process PN* at ¶ 50.
[37] *Id.* at ¶¶ 56-58.