



October 27, 2016

Via ECFS

The Honorable Tom Wheeler, Chairman
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

**RE: WT Docket No. 10-208: *Universal Service Reform – Mobility Fund*
WC Docket No. 10-90: *Connect America Fund***

Dear Chairman Wheeler,

The Rural Wireless Association, Inc. (“RWA”) writes in regard to the above-referenced Mobility Fund proceeding. You have indicated that the “Commission will move forward with rules for Mobility Fund Phase II [“MFII”] by the end of the year,”¹ and Bureau staff has briefed RWA counsel on an Order that will be circulated to Commissioners’ offices this week in preparation for possible consideration at the Open Meeting on November 17. RWA agrees with the Wireless Telecommunications Bureau’s (“Bureau”) conclusion that there is a “significant need” for ongoing support for mobile broadband service,² but is concerned about the speed at which the Commission is pursuing a conclusion to this proceeding given that, until the Bureau released its analysis of mobile broadband coverage data as of December 2015 on September 30,³ there had been no MFII information released by the Commission or its staff since June 2014⁴ – more than two years ago.

RWA recently met with Bureau staff to discuss its concerns with the Commission’s now-dated 2014 MFII proposals,⁵ and spoke again with Bureau staff this week regarding its proposed

¹ [Letter](#) to The Honorable Sean P. Duffy, U.S. House of Representatives, from The Honorable Tom Wheeler, Chairman, Federal Communications Commission (Oct. 14, 2016).

² Jon Wilkins, [Mobility Fund II: Improving the Data We Use to Identify & Close Mobile Coverage Gaps](#), FCC Blog (Sept. 30, 2016) (“*Wilkins Blog*”).

³ [Working Toward Mobility Fund II: Mobile Broadband Coverage Data and Analysis](#), Wireless Telecommunications Bureau (Sept. 30, 2016) (“*WTB Report*”).

⁴ *Connect America Fund, et al.*; Report and Order, Declaratory Ruling, Order, Memorandum Opinion and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking; WC Docket No. 10-90, *et al.*; [FCC 14-54](#), at ¶ 243 (rel. June 10, 2014) (“*FNPRM*”).

⁵ [Letter](#) to Ms. Marlene H. Dortch, Secretary, Federal Communications Commission, from Caressa D. Bennet, General Counsel, Rural Wireless Association, Inc., WT Docket No. 10-208, WC Docket No. 10-90 (Oct. 20, 2016) (“*RWA October Ex Parte*”).

Order. While RWA is appreciative of staff's time and discussion, our concerns regarding coverage data accuracy, coverage definition, technological incompatibility, MFII budget, funding disbursement mechanism, and transition remain and are outlined below. Additionally, the proposed Order raises new concerns that do not seem to have been considered in drafting the Order.

Coverage Data. The threshold question in the creation of MFII is how to accurately determine mobile wireless coverage. An incorrect determination of coverage will cause the program to be fundamentally flawed. Despite protestations by the Bureau that Form 477 data is “the most accurate data available,”⁶ and that “there is no better mobile coverage data available today,”⁷ RWA and other stakeholders remain concerned that “Form 477 data provides an unreliable view of mobile broadband coverage, particularly in rural areas and areas of low-population density.”⁸ This concern stems from the fact that carriers do not utilize a common coverage standard in reporting Form 477 data.⁹ Instead, carriers report coverage based on the minimum advertised upload and download speeds associated with a certain network technology in a frequency band.¹⁰ This lack of standard can “prevent[] carrier-to-carrier coverage comparisons and prohibit[] any useful comparative coverage conclusions to be drawn from the existing data.”¹¹ In addition to relying on apples to oranges comparisons, Form 477 information is also sometimes simply *incorrect*. The Wireline Competition Bureau has stated that “[t]he record...demonstrates that

⁶ *WTB Report* at ¶ 2.

⁷ *Wilkins Blog*.

⁸ *RWA October Ex Parte* at p. 2; see also [Letter](#) to Marlene H. Dortch, Secretary, Federal Communications Commission from Trey Hanbury, Counsel to Competitive Carriers Association, GN Docket No. 12-264, WT Docket No. 16-137, WC Docket No. 11-10, WT Docket No. 10-208 (Oct. 25, 2016) (stating that meeting participants’ “initial analysis of the Form 477 data identified flaws in reported mobile broadband coverage data due to the apparent use of different models and different assumptions for inputs into those models, such as body loss”) (“*CCA October 25 Ex Parte*”).

⁹ RWA is not alone in its concerns. C Spire has noted that “carriers have used significantly different methodologies to generate Form 477 coverage data, resulting in significantly different levels of coverage being depicted on Form 477 maps. Without a consistent set of standards for submitting this engineering data, the overall picture of where coverage and 4G LTE service are available is inaccurate.” See [Letter](#) to Marlene H. Dortch, Secretary, Federal Communications Commission, from David A. LaFuria, Counsel for C Spire Wireless, WC Docket No. 10-90, WT Docket No. 10-208, at p. 1 (Oct. 21, 2016) (“*C Spire Ex Parte*”).

¹⁰ [FCC Form 477 Local Telephone Competition and Broadband Reporting Instructions](#), OMB Control No. 3060-0816 (last visited Oct. 20, 2016), p. 24.

¹¹ *C Spire Ex Parte* at p. 1; see also *CCA October 25 Ex Parte* at p. 1 (stating that the FCC “permits each carrier to choose the propagation model, loss assumptions and performance levels necessary to determine mobile broadband coverage. And even small variations in the model used or the assumptions on which the model relies can result in dramatic changes in predicted coverage”).

misinterpretation of the Form 477 filing instructions is not unusual; indeed, it appears that quite a few parties have failed to correctly file their Form 477 data.”¹²

That the current Form 477 data is “the most accurate data available” would be of little comfort to rural residents and rural industry stakeholders whose coverage is overstated by an unsubsidized carrier – an inaccuracy that could result in an area being deemed ineligible for MFII funds, and the disappearance of coverage provided by a subsidized carrier. Instead of relying on reports of advertised speeds, and in order to ensure proper coverage determination and targeting of resources, the Commission should use a field strength measurement and propagation maps that predict coverage based on sound RF engineering principals for the purpose of determining if a census block is served.¹³ This is not a case, as some have criticized, of perfect being the enemy of the good – it is, instead, a matter of universal service funding requiring accurate data that allows for comparison, along with a robust challenge process – the details of which have not been publicly vetted through a rulemaking proceeding.

Further, the Bureau is recommending the use of road miles, rather than geographic area, as the MFII bidding metric. In addition, coverage metrics in the *WTB Report* remain limited to population and road miles without reference to other relevant geographic points of coverage that consider machine-to-machine (“M2M”) or Internet-of-Things (“IoT”) connections. As recently discussed by Deere & Company, “MFII funds directed solely to cover roads or population centers will not adequately address the need for wireless coverage in cropland areas – where a significant portion of rural populations work.”¹⁴ RWA agrees that a road mile bidding metric is

¹² *Connect America Fund*, Order, WC Docket No. 10-90, [DA 16-842](#), at ¶ 16 (July 25, 2016).

¹³ See *RWA October Ex Parte* at p. 2; see also [Letter](#) to Marlene H. Dortch, Secretary, Federal Communications Commission, from Caressa D. Bennet, General Counsel, Rural Wireless Association, Inc., WT Docket No. 10-208, WC Docket No. 10-90, at pp. 6-9 (August 23, 2016) (“*RWA August Ex Parte*”) (recommending adoption of a 50/57 dBµV/m signal strength, which equates to -85 dBm). RWA further requested that the Commission adopt RWA’s proposal that if 25 percent or more of a census block’s geographic area is unserved or underserved utilizing the appropriate field strength measurement, the census block should be considered unserved. If a census block is over 300 square miles, that census block should be considered unserved if 20 percent or more of a census block’s geographic area is unserved or underserved. See *RWA August Ex Parte* at pp. 7-8. RWA has also encouraged the Commission to consider, and seek comment on, a CostQuest Associates paper regarding how to measure coverage and service quality in rural areas. See [Letter](#) from Caressa D. Bennet, General Counsel and Erin P. Fitzgerald, Regulatory Counsel, Rural Wireless Association, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208, WC Docket No. 10-90, at p. 4 (April 13, 2016) (“*RWA April Ex Parte*”); see also Letter from David LaFuria, Counsel for U.S. Cellular, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 (Feb. 25, 2016) (“*U.S. Cellular Ex Parte*”) (including CostQuest Associates Economic Research & Analysis, [Mobile Voice and Broadband Coverage: An analysis of Sources, Measures, and Reporting Methods](#) (updated January 22, 2016)).

¹⁴ See [Letter](#) to Marlene H. Dortch, Secretary, Federal Communications Commission from Catherine Wang, Counsel for Deere & Company, WC Docket No. 10-90, WT Docket No. 10-

insufficient, and supports a regime under which MFII bidding and coverage units are based on a geographic measurement that accounts for cropland and other agricultural areas (e.g., pastureland, rangeland, and forestland), along with areas where energy production, tourism, and other industrial activities, such as aquaculture, occur. These are areas where the need for mobile broadband is great, but where there are few roads that, if covered, would provide the necessary coverage.¹⁵ Even within the limited confines of population and road mile metrics, the Bureau's approximations of coverage data assume a uniform distribution of population and road miles within each census block to determine coverage rather than actual distribution.¹⁶ This is inaccurate and has the effect of further compromising the accuracy of the data yielded from Form 477 filings.

Coverage Definition. In the *FNPRM*, the Commission proposed to identify areas eligible for support as areas “where neither Verizon nor AT&T provide 4G LTE.”¹⁷ Staff has identified areas eligible for support as “areas within census blocks that do not today have unsubsidized 4G LTE coverage.”¹⁸ The problem is that the terms “4G LTE” and “LTE” are undefined for the purposes of MFII. The terms are used vaguely, suggesting that they cover both voice and data services. But, in fact, LTE is a data – not voice – service. The *WTB Report* does not discuss how current voice service technologies (3G GSM or CDMA, or VoLTE) would factor into (or be supported by) MFII, even though the technologies are identified in Form 477 and staff discussions indicate that the provision of voice service would be required of MFII funding recipients.

Technological Incompatibility. Relatedly, the Commission's coverage data and definition *must* consider the GSM/CDMA incompatibility issue.¹⁹ Despite the growing use of 4G LTE networks for mobile *data* services, carriers largely rely on 3G or 2G CDMA and GSM networks to provide mobile *voice* service. Unfortunately, CDMA and GSM technologies are incompatible; GSM-based smartphones cannot be used to make voice (not even 911) calls on a CDMA carrier's network and vice versa. In areas where VoLTE is not deployed and only one of the two technologies is available, *half* of consumers will be left without access to voice service or emergency services.

RWA understands the Commission's desire to target MFII support to areas where mobile service cannot be provided without high-cost support and to avoid duplicative funding. But RWA strongly urges the Commission to recognize that support for a CDMA carrier where an unsubsidized GSM carrier provides service (or vice versa), or support for both a CDMA and

208 (Oct. 17, 2016); *see also* [Letter](#) to Marlene H. Dortch, Secretary, Federal Communications Commission from Catherine Wang, Counsel for Deere & Company, WC Docket No. 10-90, WT Docket No. 10-208 (Oct. 11, 2016); *see also* [Letter](#) to Chairman Tom Wheeler, FCC, from United States Senators Wicker, Manchin, *et. al.* (July 16, 2016).

¹⁵ *RWA August Ex Parte* at pp. 5-6.

¹⁶ *WTB Report* at ¶¶ 19, 22.

¹⁷ *FNPRM* at ¶ 241.

¹⁸ *WTB Report* at ¶ 2.

¹⁹ *RWA August Ex Parte* at pp. 9-11.

GSM carrier in an area, *is not duplicative*. It will be years before VoLTE service is ubiquitous throughout rural America and all consumers have VoLTE-capable handsets. In the meantime, the Commission must continue to fund a CDMA carrier where an unsubsidized GSM carrier provides service (or vice versa), or be willing to support both a CDMA and GSM carrier in an area where VoLTE is not available, to ensure voice coverage. Failure to account for voice fallback threatens public safety. This is not a new concern. It was first raised by RWA member Panhandle Telephone Cooperative, Inc. in December 2014, and has since been raised by RWA and other stakeholders many times.²⁰

Challenge Process. Once the Commission has addressed these coverage issues and adopted an appropriate coverage formula and definition, it must also adopt a thorough challenge process. The Bureau has committed to establishing a “targeted” challenge process without discussing exactly what a “targeted” challenge process may look like.²¹ The Commission should seek comment on this challenge process so that all stakeholders have an opportunity to have their concerns addressed. Any challenge process adopted by the Commission should also ensure that all parties (not just those with nearly unlimited technological and personnel resources) have sufficient time and opportunity to carefully review and provide input on areas determined to be both eligible and ineligible for support.²²

Budget. RWA opposes any downward adjustment of the originally proposed \$500 million annual budget for MFII. The Commission’s proposal to reduce the originally proposed \$500 million budget to \$400 million was predicated on estimated February 2014 disbursement figures indicating that \$185 million was going to two national providers with announced commercial LTE roll-outs and about \$400 million of annual support was going to smaller and regional wireless providers.²³ This proposal failed to consider actual carrier costs and should be rejected.

²⁰ [Notice of Ex Parte Presentation of Panhandle Telephone Cooperative, Inc.](#), WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208 (Dec. 17, 2014); *see also* [RWA October Ex Parte](#) at p. 3; *see also* [RWA August Ex Parte](#) at pp. 9-11; *see also* [RWA April Ex Parte](#) at pp. 4-5; *see also* [Letter](#) from Anthony K. Veach, Sr. Regulatory Counsel and Erin P. Fitzgerald, Regulatory Counsel, Rural Wireless Association, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208, WC Docket No. 10-90, at p. 3 (Dec. 22, 2015); *see also* [Letter](#) from Erin P. Fitzgerald, Assistant Regulatory Counsel, Rural Wireless Association, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 10-208, WC Docket No. 10-90 (Aug. 26, 2015); *see also* [U.S. Cellular Ex Parte, Attachment](#) at p. 17; *see also* [Letter](#) to Marlene H. Dortch, Secretary, Federal Communications Commission from Rebecca Murphy Thompson, EVP & General Counsel, Competitive Carriers Association, WT Docket No. 10-208, at p. 2 (Oct. 13, 2016); *see also* [Letter](#) to Marlene H. Dortch, Secretary, Federal Communications Commission from Rebecca Murphy Thompson, EVP & General Counsel, Competitive Carriers Association, WT Docket No. 10-208, at p. 2 (Sept. 13, 2016).

²¹ [Wilkins Blog](#).

²² *See* [RWA August Ex Parte](#) at p. 9.

²³ [FNPRM](#) at ¶ 243.

Further, RWA cautions the Commission that truly universal mobile wireless coverage will require sufficient and predictable funding, rather than an arbitrary budget limit with no basis in actual rural wireless network deployment costs. The 2011 *USF/ICC Transformation Order* eliminated the identical support rule on grounds that identical support “bear[s] no relation to the efficient cost of providing mobile service.”²⁴ The \$500 million, and later \$400 million, figures are based on an amount that was frozen and reduced to 60% of the 2011 baseline – an amount derived from the identical support rule, which had been based on the rural landline carrier’s costs. If the amounts mobile wireless companies once received under the identical support rule were not reflective of wireless carriers’ costs, the Commission’s proposed budget (and proposed reduction) for MFII is similarly arbitrary. RWA urges the Commission to consider actual carrier cost data in relation to coverage needs to better determine what sort of budget is necessary for MFII.²⁵ Absent such consideration, RWA urges the Commission to commit no less than its originally proposed \$500 million in MFII funding and provide for an ability to increase funding at a future date.

MFII Funding Disbursement Mechanism. RWA opposes the proposed use of a reverse auction to disburse MFII funds. A reverse auction is a “race to the bottom” that funds networks in less expensive places first, and leaves prospective networks serving more difficult terrain (in areas like West Virginia or Montana) with less of a chance of receiving support. However, if the Commission decides to use a reverse auction, it should seek comment on what did and did not work in Mobility Fund Phase I (“MFI”) in order to inform MFII reverse auction procedures and post-auction requirements. As Commission staff and MFI recipients are aware, aspects of the post-auction MFI implementation – buildout verification, coverage reporting, and funding disbursements – have taken significantly longer, and have proven to be much more difficult, than expected. Because the Commission has drawn heavily from MFI for its proposed MFII framework, it should carefully consider what did and did not work in MFI before moving forward with MFII.²⁶ Again, a further rulemaking seeking comment from past participants and all stakeholders should be conducted so that the MFII reverse auction rules and procedures are adopted following administrative law requirements.

If the Commission decides to use a reverse auction, RWA supports the use of the proposed mechanism in which carriers that provide subsidized service can enter a prioritized “preservation of service” bid. But, in cases where “preservation of service” bids are unsuccessful due to budgetary limitations, under no circumstance should current/legacy support be eliminated if it would result in 2G/3G or LTE being turned off and an area being left entirely without mobile

²⁴ *Connect America Fund et al.*, WC Docket No. 10-90 *et al.*, Report and Order and Further Notice of Proposed Rulemaking, [26 FCC Rcd 17828](#), ¶ 504 (Nov. 18, 2011) (“*USF/ICC Transformation Order*”).

²⁵ See, e.g., *U.S. Cellular Ex Parte*, CostQuest Associates Economic Research & Analysis, [Ongoing Support for Operations & Maintenance of Rural Mobile Networks](#) (Feb. 22, 2016).

²⁶ *USF/Transformation Order* at ¶ 1136 (noting that the Commission planned to “take into account [its] experience implementing Mobility Fund Phase I” in making decisions regarding maximizing consumer benefits during the implementation of MFII); see also *RWA August Ex Parte* at pp. 3-4.

service. Given that current support is not based on carriers' costs, the Commission must allow a rural carrier that is unsuccessful in a reverse auction to target support to its high cost areas that would be turned off if no support is provided. To date, there has been no correlation of universal service support received to provision of service to a specific high cost census block, nor has the Commission allowed for disaggregation of support to be directed to these high cost areas. Again, this is another reason for the Commission to issue a further notice of proposed rulemaking. In addition, if the Commission employs a reverse auction, it must implement a mechanism to ensure that both CDMA and GSM technologies are supported in an area until carriers have universally implemented VoLTE roaming and rural consumers have access to devices capable of receiving interoperable VoLTE service.

Transition from Current Support. It is our understanding that the Bureau has proposed a transition regime under which: (1) after the Bureau determines the reverse auction census block eligibility list, non-nationwide carriers that provide service in areas that have 100% unsubsidized 4G LTE coverage will receive 40% of its former legacy high-cost support for 12 months; and (2) after the auction concludes, non-nationwide carriers that provide service in areas that have less than 100% unsubsidized 4G LTE coverage that participate and lose in the reverse auction will receive 40% of its former legacy high-cost support for 12 months. In both circumstances, there would be a flash cut to non-nationwide providers from 60% to 40% funding *and then* another flash cut to 0% after 12 months. If adopted and applied to rural carriers with fewer than 100,000 subscribers, this transition scheme will result in affected rural carriers shutting down service, job loss in rural towns, and further deterioration of coverage. From an administrative law standpoint, this proposal should have been put in a further notice of proposed rulemaking rather than being addressed in an Order for the first time.

In order to allow for carrier strategic planning and to prevent loss of service in high cost rural areas, the Commission should find that MFII is deemed to have been "implemented" only after 50 percent of MFII funds have been disbursed to carriers. Disbursement of at least 50 percent of MFII funds will ensure that the legacy support phase-down does not re-start until MFII replacement support is realized by winning bidders and those funds are put into use. This will allow non-winning bidders to have a longer glide path to seek replacement funding, scale back their business, or exit the business without the massive disruption a flash cut would cause.²⁷

If the Commission finds a 50% disbursement timeline unacceptable, RWA believes that a transition under which: (1) after the Bureau determines the reverse auction census block eligibility list, non-nationwide carriers that provide service in areas that have 100% unsubsidized 4G LTE coverage will receive the current 60% support level for 12 months, then 40% for 12 months, and then 20% for 12 months; and (2) after the auction concludes, non-nationwide carriers that provide service in areas that have less than 100% unsubsidized 4G LTE coverage that participate and lose in the reverse auction will receive the current 60% support level for 12 months, then 40% for 12 months, and then 20% for 12 months, is an appropriate compromise in that it will prevent flash cuts to rural carriers who do not successfully challenge service area eligibility determinations and are not successful at auction. Further, a 3-year transition plan

²⁷ See RWA August Ex Parte at pp. 4-5.

mirrors what the Commission did for wireless carriers that chose not to participate in the Alaska Plan.²⁸

Data Roaming Impact on MFII. RWA supports your decision to re-examine data roaming issues in light of the Commission’s *Open Internet Order*. The Commission’s action (or inaction) on data roaming will impact rural carriers’ need for universal service support. The nation’s largest carriers oppose MFII support in areas where 4G LTE is reported on Form 477 *and* continue to fight rural efforts to ensure access to commercially *reasonable* data roaming. Further, nationwide carriers often refuse to: (1) enter into bilateral roaming agreements under commercially reasonable rates, terms, and conditions; and (2) offer their own subscribers access to rural roaming coverage on rural carrier networks (built with the help of USF support) even when their own coverage is non-existent or inferior. These carriers appear to have also forgotten that high-cost USF policies have played a huge role in supporting their own network buildout (*e.g.*, the Verizon LRA program). The Commission’s attention to these issues would both lessen rural carriers’ need for high cost support and enhance public safety by promoting network resiliency in case of an emergency.

Support for mobile broadband and voice service is tremendously important. This is true not just for citizens that live and work in, and travel to, rural America – but for *all* Americans that *benefit* from the energy and food production that is made more efficient by wireless service. As such, RWA urges the Commission to focus on getting MFII done *right*, rather than done *hastily*. RWA understands your concern that delay at this stage may lead to inaction. RWA supports action in this docket, and does not wish to stand in the way of progress. To this end, the Commission should release a Further Notice of Proposed Rulemaking before the end of the year that seeks comment on the Bureau’s newly-raised MFII proposals and on items that have been submitted in the record since the June 2014 *FNPRM*.

RWA appreciates the Commission’s efforts in this proceeding thus far, and stands ready to work with you, your fellow Commissioners, and Commission staff as this process moves forward.

Respectfully submitted,

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²⁸ *Connect America Fund, Universal Service Reform – Mobility Fund, Connect America Fund – Alaska Plan*; Report and Order and Further Notice of Proposed Rulemaking; [FCC 16-115](#); at ¶ 66 (rel. Aug. 31, 2016) (stating that “[e]ligible competitive ETCs who elect not to participate in the Alaska Plan will have their support phased out over a period of three years).