

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Rural Digital Opportunity Fund)	WC Docket No. 19-126
)	
Connect America Fund)	WC Docket No. 10-90
)	

COMMENTS OF VERIZON¹

Verizon supports the Commission’s proposal to create the Rural Digital Opportunity Fund (RDOF) as another important step in addressing our nation’s digital divide. Although most Americans have access to both fixed and mobile broadband service, there are still millions of Americans that have either no or slow access to fixed broadband. The \$20.4 billion RDOF program will allow the Commission to make significant progress towards eliminating the rural broadband deployment gap, if it draws on lessons learned from the 2018 Connect America Fund (CAF) auction and designs the RDOF program to both focus on terrestrial broadband and make efficient use of the limited budget.

I. INTRODUCTION AND SUMMARY

Verizon believes that all Americans, no matter where they live, should have access to broadband. As the Commission explains in the *NPRM*, access to broadband is critical to economic opportunity, job creation, education, and civic engagement.²

¹ The Verizon companies participating in this filing are the regulated, wholly owned subsidiaries of Verizon Communications Inc.

Hundreds of billions of dollars of carrier investment,³ supplemented by a smaller amount of universal service support, have enabled the deployment of broadband to most Americans, even in rural areas. According to the *2019 Broadband Progress Report*, the percentage of rural Americans that live in census blocks reported as served by fixed terrestrial broadband at the benchmark speed of 25/3 Mbps has increased from 61.5 percent in 2015 to 67.8 percent in 2016 and 73.6 percent in 2017.⁴

Mobile broadband services are even more widely available than fixed services in rural America. Verizon has invested tens of billions of dollars in the nation's largest 4G LTE network, which covers 326.5 million Americans and more than 2.5 million square miles.⁵ In the *2019 Broadband Progress Report*, the Commission found that over 99 percent of rural Americans have access to 4G LTE mobile broadband.⁶

However, at least 16.8 million Americans in the most rural areas still lack access to 25/3 Mbps fixed terrestrial broadband.⁷ In those sparsely populated areas,⁸ no provider has been able to make a business case for broadband deployment because the cost of deploying many miles of

² *Rural Digital Opportunity Fund*, Notice of Proposed Rulemaking, WC Docket Nos. 19-126 & 10-90, FCC 19-77 (Aug. 2, 2019) (“*NPRM*”).

³ See Patrick Brogan, USTelecom Research Brief at 1, “U.S. Broadband Investment Continued Upswing in 2018” (July 31, 2019), <https://www.ustelecom.org/research/u-s-broadband-investment-continued-upswing-in-2018/>.

⁴ *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 2019 Broadband Deployment Report, 34 FCC Rcd 3857, at Fig. 1 (2019) (“*2019 Broadband Progress Report*”).

⁵ <https://www.verizonwireless.com/featured/better-matters/>

⁶ *2019 Broadband Progress Report*, at Fig. 2a.

⁷ *Id.*, at Appendix 1.

⁸ See *id.*, at Fig. 6 (showing that rural areas with deployment have a population density of 206.6 people per square mile, while rural areas without deployment have a population density of just 77.1 people per square mile).

fiber or building a new wireless tower is too high to recover from the small number of potential customers.

In some areas where there is no business case for broadband deployment, the Commission has provided universal service support through the 2015 CAF “statewide offer” program and the 2018 CAF auction program. Verizon participated in the 2018 CAF auction and won CAF support to build gigabit-speed fiber broadband in parts of seven states. Verizon is also deploying fiber to over 18,000 unserved rural locations in New York with support from New York’s broadband program and, in some census blocks, matching support from the CAF program.

Eliminating the remaining broadband availability gap is a challenging task. It will require substantial government support, sufficient to deploy broadband to millions of unserved homes and small businesses in the most expensive rural areas, at speeds that are reasonably comparable to the ever-increasing speeds in urban areas. Verizon supports the proposed RDOF program because it offers an unprecedented opportunity to extend fixed broadband to millions of unserved Americans.

The objective of the RDOF program should be to support the deployment of fixed terrestrial broadband (wireline or fixed wireless) to as many eligible locations as possible, while still taking into account the Commission’s preference for higher speeds and higher usage allowances. To achieve that objective, the RDOF program should make efficient use of the limited budget by (1) promoting bidding for all performance tiers; (2) ensuring that RDOF support does not duplicate other broadband programs or pre-existing regulatory obligations, including merger commitments; and (3) limiting the share of the RDOF budget that is spent in the most expensive areas.

II. THE RDOF PROGRAM SHOULD FOCUS ON TERRESTRIAL BROADBAND

In general, the Commission’s proposal to apply most of the rules for the 2018 CAF auction to the RDOF program makes sense. The CAF auction was the first large universal service auction, and represented a significant advance in universal service policy. By re-using the CAF auction system and most of the CAF auction rules, the Commission can move quickly to the first RDOF auction with a tested framework.

However, the Commission should make targeted changes to the CAF auction framework to better serve interests of American consumers given the limited funds available. In particular, the Commission should not offer RDOF support for high-latency satellite broadband services, which won about 27 percent of the locations that were awarded support in the 2018 CAF auction. The RDOF program should instead offer RDOF support only for the deployment of low-latency terrestrial broadband services (both wireline and fixed wireless).

The RDOF program should focus on terrestrial broadband deployment because low-latency terrestrial broadband service “is essential for most network-based applications and critical for others, such as VoIP and other interactive and highly interactive applications.”⁹ By contrast, as the Commission has found, high-latency satellite broadband has “inherent limitations,” particularly for “interactive, real-time applications and voice services given that high latency providers may be the only voice providers in the area.”¹⁰

Moreover, RDOF support for terrestrial broadband will drive the deployment of fiber networks deep into rural areas. Not only will wireline and fixed wireless services provide robust

⁹ *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 5949, ¶ 32 (2016).

broadband to homes and businesses, but they will be built on scalable fiber infrastructure that will support future increases in broadband speeds and also provide the foundation for the deployment of both 4G and 5G mobile wireless services in rural areas. RDOF support for satellite broadband service would provide none of those ancillary benefits.

Satellite broadband has an important role to play in exceptionally high-cost or isolated areas in which the support required to deploy terrestrial broadband would be prohibitive. In the CAF auction, however, satellite broadband won support for large areas that were largely indistinguishable from the kinds of areas that won support for terrestrial broadband, according to the Commission's cost model.¹¹ In fact, some census blocks that were awarded support for high-latency 25 Mbps satellite broadband are immediately adjacent to census blocks that won support for low-latency gigabit-speed fiber broadband.¹²

For at least the Phase I RDOF auction, the Commission should eliminate the high-latency tier. The Commission could then revisit the role of high-latency satellite broadband when it develops the rules for the Phase II RDOF auction, after it has analyzed the results of the first auction. At a minimum, the Phase I RDOF rules should restrict satellite broadband providers to bidding for exceptionally isolated or sparsely-populated areas, similar to – but more stringent than – the Rural Broadband Experiments program's restriction on satellite applications.¹³

¹⁰ *Connect America Fund et al.*, Order on Reconsideration, 33 FCC Rcd 1380, ¶ 11 (2018).

¹¹ For locations awarded support for the Baseline performance tier, the average per-location reserves (which the Commission calculated using its cost model) were about the same for the locations won by high-latency providers (an average of \$64 per location per month) and for the locations won by low-latency providers (an average of \$58 per location per month).

¹² See <https://www.fcc.gov/reports-research/maps/caf2-auction903-results/>.

¹³ See *Connect America et al.*, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8769, ¶ 29 (2014).

If the Commission permits satellite broadband providers to bid for some or all eligible census blocks, it should increase the high-latency tier weight from 25 to at least 40.¹⁴ In addition, the Commission should give low-latency tier bidders an absolute preference after the clearing round,¹⁵ if low-latency bidders and high-latency bidders are competing for the same census block group. Given that the total support amount will already be below the program budget after the clearing round, the benefits of supporting the deployment of scalable low-latency terrestrial broadband infrastructure outweigh the value of any further price competition from high-latency tier bidders.

III. THE RDOF PROGRAM SHOULD MAKE EFFICIENT USE OF THE BUDGET

The primary objective of the RDOF program should be to support the deployment of fixed terrestrial broadband to as many eligible locations as possible, while also taking into account the Commission's preference for higher speeds and higher usage allowances.¹⁶ To achieve that objective, the RDOF program must make efficient use of the limited budget.

A. The RDOF Program Should Promote Bidding for All Performance Tiers

Under any of the *NPRM*'s proposals for identifying RDOF-eligible areas,¹⁷ the proposed RDOF budget is almost certainly insufficient to support the deployment of gigabit-speed broadband to more than a subset of the eligible locations. To support terrestrial broadband

¹⁴ *NPRM*, ¶ 25.

¹⁵ *Connect America Fund Phase II Auction Scheduled for July 24, 2018; Notice and Filing Requirements and Other Procedures for Auction 903*, Public Notice, 33 FCC Rcd 1428, ¶¶ 260-276 (2018) (“*Procedures Public Notice*”).

¹⁶ See *NPRM*, ¶ 25.

deployment to as many eligible locations as possible, the RDOF program will likely need to support a mix of wireline and fixed wireless terrestrial broadband technologies. For example, the RDOF program could meet its objectives by awarding support for fiber to the home deployments in some relatively lower-cost eligible areas and for fixed wireless deployments in higher-cost eligible areas.

To provide an opportunity for a mix of technologies to bid in the RDOF auction, the Commission should adopt the same technology-neutral performance tier structure that it used for the CAF auction. The Commission should adopt performance tier weights that balance its preference for higher speeds with the need to promote bidding for all performance tiers and thereby maximize competition in the auction.¹⁸ As the Commission explained in CAF proceeding, the weights should “promote competition within and across areas by giving all service providers the opportunity to place competitive bids, regardless of the technology they intend to use to meet their obligations.”¹⁹ The weights proposed in the *NPRM* are a reasonable starting point, but may need to be adjusted to take into account Commission decisions regarding other elements of the RDOF rules. A provider’s decision to bid is not based on the weights alone, but on the combined effect of the weights and other factors that affect the potential support amount, such as the eligible areas and the reserves.

Although promoting bidding for all performance tiers is an important goal, the RDOF rules must ensure that all bidders are financially and technically qualified to meet the

¹⁷ *Id.*, ¶¶ 3, 45-53.

¹⁸ See *Connect America Fund et al.*, Report and Order and Order on Reconsideration, 32 FCC Rcd 1624, ¶¶ 21-24 (2017) (“*Phase II Auction FNPRM Order*”).

¹⁹ *Id.*, ¶ 27.

requirements of the performance tier for which they are proposing to bid.²⁰ In particular, the Commission should focus additional pre-auction scrutiny on applicants that are seeking authority to bid for a large number of locations, relative to the size of their existing customer base, or are planning to bid for performance tiers in which they currently provide little or no commercial service.

B. The RDOF Program Should Not Offer Duplicative Support

To ensure that the limited RDOF budget is used to extend broadband to the largest number of unserved Americans, the Commission should ensure that RDOF support is not diverted to satisfy certain pre-existing broadband deployment obligations.

First, the Commission should adopt a rule, modeled on the rule that it adopted in the *Transformation Order* for the CAF Phase I program, requiring applicants for RDOF support to certify that they will not use RDOF support to satisfy pre-existing merger commitments or similar regulatory obligations.²¹ Such merger commitments could include, for example, a commitment to cover a specified percentage of the population or to deploy broadband to a specified number of households or housing units.²² It would be inefficient to provide RDOF support for broadband deployment that will occur even without support.

Second, the Commission should exclude from the RDOF program certain census blocks that are already receiving support from specified pre-existing federal or state broadband programs. In particular, the Commission should adopt its proposal to exclude from the RDOF

²⁰ See *Procedures Public Notice*, ¶¶ 101-106.

²¹ *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, ¶ 146 (2011) (“*Transformation Order*”).

²² *Id.*, ¶ 146 n.233.

program any census blocks that were awarded support in the CAF auction or were allocated matching CAF support for New York.²³ The Commission should also exclude from the RDOF program census blocks that were awarded support from the New NY Broadband Program but were not eligible for matching CAF support.²⁴

C. The RDOF Program Should Limit Support for the Most Expensive Locations

To maximize the number of eligible locations that win support in the RDOF auction, the Commission should avoid spending a disproportionate share of the budget on a small number of the most expensive locations. Under the CAF auction rules, very high cost areas had the same chance to win support as relatively low cost areas.²⁵ The only constraint on support being “disproportionately diverted” to the most expensive locations was the cap on the reserves, which the Commission set at \$146 per location per month.²⁶ But the \$146 per location cap did little to prevent a disproportionate share of the support from being spent on the most expensive locations. Census block groups with reserves over \$100 per location per month – which accounted for just 15 percent of the eligible locations – won 33 percent of the support awarded in the CAF auction (almost \$500 million).²⁷ At the same time, 27 percent of the eligible locations – disproportionately in census block groups with low reserves – received no support.

²³ *NPRM*, ¶ 48.

²⁴ The New NY Broadband Program awarded support for 100 Mbps broadband in census blocks that were eligible for matching CAF support and also in census blocks that were not CAF-eligible. It would be wasteful to award RDOF support for any of those census blocks. *See* <https://nysbroadband.ny.gov/new-ny-broadband-program/phase-3-awards>.

²⁵ *Phase II Auction FNPRM Order*, ¶¶ 62-63.

²⁶ *Id.*

²⁷ *See* <https://auctiondata.fcc.gov/public/projects/auction903>.

In the RDOF auction, the Commission should – relative to the CAF auction – spend less of the budget in the most expensive areas and more of the budget in the relatively less-expensive areas where it can get more “bang for the buck.” At a minimum, the Commission should curtail spending on the most expensive locations by reducing the maximum reserve from the \$146 per location maximum used for the CAF auction. And it should not adopt its proposal to increase the maximum reserve to \$200 per location per month (\$24,000 over the ten-year term of the RDOF program),²⁸ which would allow even more of the limited budget to be spent on a handful of expensive locations.

IV. CONCLUSION

The Commission should structure the RDOF program to prioritize support for terrestrial broadband and make efficient use of the limited budget.

Respectfully submitted,

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²⁸ *NPRM*, ¶ 56.