

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of

Establishing a 5G Fund for Rural
America

Universal Service Reform – Mobility
Fund

GN Docket No. 20-32

WT Docket No. 10-208 (closed)

**COMMENTS OF
THE CALIFORNIA PUBLIC UTILITIES COMMISSION**

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I. INTRODUCTION

The California Public Utilities Commission (CPUC or California) submits these comments in response to the Federal Communications Commission's (Commission or FCC) April 23, 2020 *Notice of Proposed Rulemaking (NPRM)* proposing a 5G Fund framework.¹ The 5G Fund would award up to \$9 billion through two phases to support 5G-capable networks in rural areas, Tribal areas, and facilitate precision agriculture. California has a strong interest in the 5G Fund framework and implementation as it has extensive rural areas, 109 federally recognized Tribes,² and substantial agricultural business. The FCC's own staff analysis estimates nearly 257,000 square miles would be eligible in California, the third largest eligible square mileage behind Montana and Texas.³

The CPUC generally supports the 5G Fund implementation with reverse-auctions to award funding, reserve \$680 million of the budget for 5G service on Tribal lands, and target funding to facilitate precision agriculture. However, the CPUC offers recommendations to ensure timely 5G Fund implementation using a federal-state partnership, an effective 5G Fund framework, and important public safety measures for declared emergencies.

¹ In the Matter of Establishing a 5G Fund for Rural America, *Notice of Proposed Rulemaking*, GN Docket No. 20-32, (rel. April 24, 2020) (*NPRM*).

² Indian Health Service, California Area, List of Federally-Recognized Tribes in CA, February 1, 2019, available at <https://www.ihs.gov/california/index.cfm/tribal-consultation/resources-for-tribal-leaders/links-and-resources/list-of-federally-recognized-tribes-in-ca/>.

³ See Federal Communications Commission *Working Toward the 5G Fund for Rural America: Option A Eligibility Analysis*, at 3. <https://docs.fcc.gov/public/attachments/DOC-363633A1.pdf>.

II. Hold A Phase I Auction After 2021 But Avoid Delaying Until 2023.

The *NPRM* proposes two implementation options for the 5G Fund Phase 1. Under Option A, the FCC would hold an auction in 2021 despite admitting it does not, and will not, have accurate mobile broadband coverage maps to help it determine the areas that should be eligible for 5G Fund subsidies.⁴ Instead, the FCC would distribute funds to rural areas it believes are least likely to receive mobile service without federal support, such as those with sparse populations, rugged terrain, or other factors.⁵

Alternatively, under Option B, the FCC would implement Phase I in 2023 or later, after collecting more accurate mobile coverage data through the new Digital Opportunity Data Collection (DODC).⁶ Per the FCC, Option B would better target subsidies to unserved rural areas but delay rural 5G deployment.

The CPUC opposes Option A and recommends the FCC delay Phase I auction(s) until the FCC collects accurate mobile coverage data.⁷ Prior to this *NPRM*, the FCC suspended its Mobility Fund Phase II process after finding serious flaws with the carriers' mobile broadband coverage data submitted to the FCC.⁸ Further, Congress issued the

⁴ See *NPRM*, para 34. (“We seek comment on currently available sources of data that would allow us to best target 5G Fund support to areas that have historically lacked mobile service. We do not believe we should identify areas eligible for support based on existing mobile broadband coverage data because staff has found that these coverage data, submitted both as part of FCC Form 477 and in the one-time Mobility Fund Phase II data collection, do not really reflect actual on-the-ground coverage in many instances.[citation omitted] ... We seek comment on these issues and on other potential mobile coverage data sources that would help inform which areas should be prioritized due to a historic lack of service.”)

⁵ *NPRM*, para. 24.

⁶ *NPRM* para. 37.

⁷ This view is consistent with CPUC Comments, In re *Rural Digital Opportunity Fund; Connect America Fund*, WC Docket Nos. 19-126, 10-90, at p. 3 (Sept. 20, 2019).

⁸ See Federal Communications Commission *Mobility Fund Phase II Coverage Maps Investigation Staff Report* at <https://docs.fcc.gov/public/attachments/DOC-361165A1.pdf>.

2020 Broadband Deployment Accuracy and Technological Availability (DATA) Act requiring the FCC to collect mobile broadband coverage data, create new maps using that data, and issue any new funding based on the maps.² Both of these demonstrate the need for the FCC to collect better data before issuing limited ratepayer funding.

However, the FCC should not delay Phase I until 2023, as Option B proposes. The FCC can develop better maps through data collection without waiting to complete the DODC. The CPUC recommends the FCC invite States to collect coverage data that represents actual mobile broadband deployment. For example, California could conduct its own state-wide drive tests using its CalSPEED technology and provide accurate mobile broadband coverage maps to the FCC no later than 2021, and other States could also choose to invest in drive tests and submit their results.¹⁰ For States that choose to take on this responsibility, the FCC could conduct an auction in 2022. Under such an approach, the FCC could better target subsidies to rural areas unlikely to see unsubsidized 5G service and shorten the delay inherent with the FCC’s Option B proposal.

III. Develop Rural Area Prioritization with the States for the 5G Fund.

Under Option A, the *NPRM* proposes to identify eligible rural areas by using a “degree of rurality” approach to better target funding to where it is needed most. The FCC proposes to base the degree of rurality of any given area on the U.S. Department of Agriculture’s Rural-Urban Commuting Area Codes that employ the most recent

² See Broadband DATA Act § 802(c)(2)(B).

¹⁰ Or, a State could engage in another method (other than a drive test) that provides a basis for it to certify accurate existing mobile broadband coverage areas within the State to the FCC.

decennial census data (2010) and the 2006-10 American Community Survey, and to categorize census tracts based on population density, urbanization, and daily commuting patterns. Within those areas the FCC considers the most rural, the FCC proposes to prioritize areas that have historically lacked 3G or 4G LTE service and seeks comment on how to identify them.¹¹

Instead of using ten-year old data to identify eligible rural areas, the FCC should work with States to collect more accurate coverage data as mentioned above. Further, the FCC should seek input from States on which rural areas to prioritize for 5G Fund subsidization. It is important that the FCC's prioritization of rural areas incorporate additional criteria beyond historical lack of 3G and 4G LTE service. Many of the criteria depend on state-specific considerations. For example, in California, areas that should be prioritized may include, but not be limited to, high fire threat zones, earthquake zones and other disaster-prone areas, as well as areas with frequent Public Safety Power Shutoff events, digital equity, telehealth and homework gap issues, and Tribal areas. The relative importance of these criteria is unique to California and may be quite different from factors that impact priorities in other States or the country generally. Therefore, the FCC should work with States to identify criteria by which to prioritize rural areas for subsidization.

¹¹ *NPRM* para. 33.

IV. The Final Service Milestone Should Require 100 Percent Service Deployment by End of Year Seven.

As part of the public interest obligations, the *NPRM* proposes to require a 5G Fund recipient to provide service at required performance levels to at least 85 percent of its total awarded areas in a State by the end of the sixth full calendar year.¹² Requiring service at specified performance levels to only 85 percent of the total awarded areas is inadequate and inconsistent with the public interest as not all funded areas would receive 5G service.¹³ The FCC should require recipients to serve 90 percent of its awarded areas in a State by the end of year six and 100 percent by end of year seven, the final service milestone, so that no areas are left behind. If a recipient is unable to meet the 100 percent requirement, the FCC can allow a 12-month grace period to allow the recipient to meet the threshold. Failure to do so should mean the recipient returns the funding for areas it has left unserved.

It is problematic that a recipient would receive 100 percent of funding for an awarded area but not provide service to 100 percent of the area. For example, the unserved areas left out of the 85 percent would be ineligible for any subsequent federal funding programs until the FCC learns they remain unserved through a carrier's final report. For these reasons, the FCC should require service at required performance levels to 100 percent of awarded areas in a State.

¹² *NPRM* para. 96.

¹³ The FCC should consider making census blocks the minimum biddable area to allow bidders to better align their network plans with their bids and network deployment.

V. Account for T-Mobile Merger Commitments to the States and T-Mobile Should Not Receive 5G Fund Support to Meet Merger Commitments.

The FCC's approval of the T-Mobile/Sprint merger is conditioned on T-Mobile deploying 5G service with download speeds of at least 50 Megabits per second (Mbps) to 90 percent and 100 Mbps to at least two-thirds of the nation's population.¹⁴ Nevertheless, the FCC estimates that, even with such service levels, 81 percent of the rural land area could remain unserved.¹⁵ The CPUC's Decision approving the T-Mobile/Sprint merger imposes more stringent requirements on T-Mobile's rural 5G deployment than those the FCC imposed.¹⁶ T-Mobile is obligated to provide service of at least 50 Mbps download to 94 percent of California's rural population and service of at least 100 Mbps download to 85 percent of California's rural population.

The *NPRM* tentatively concludes that it would be inappropriate to allow T-Mobile to use 5G Fund support to fulfill its merger obligations, and because 5G funds are limited, funds should not be awarded to other providers to deploy service in areas that T-Mobile is required to serve.¹⁷ The CPUC agrees.

However, complicating the situation is that T-Mobile's merger obligations are stated only in terms of a percentage of population to be served and not where service will be deployed. Thus, the areas to be carved out from eligibility cannot be identified.

¹⁴ *NPRM* para. 15.

¹⁵ *NPRM* para. 23.

¹⁶ CPUC Decision 20-04-008.

¹⁷ *NPRM* paras. 23, 130.

Accordingly, the FCC has proposed an approach for T-Mobile to identify the areas it will serve to achieve its merger obligations as part of the 5G Fund process.¹⁸

In any process the FCC adopts to identify these areas (or any other methods adopted to ensure that T-Mobile does not receive subsidies to complete its obligations), such a process should identify the areas where T-Mobile will deploy 5G service to comply with California's, other States', and the FCC's merger conditions. T-Mobile's submission of such information should be a condition to T-Mobile's ability to receive subsidies from the 5G Fund, and any other federal Universal Service support programs.

VI. Require Drive Tests to Measure Compliance with Performance and Deployment Requirements.

The *NPRM* proposes 5G Fund recipients submit supporting data and milestone coverage maps to the Universal Service Administrative Company (USAC) so that it can evaluate and verify compliance with coverage performance requirements.¹⁹ Maps would include the output of propagation modeling, and data would include the results of on-the-ground measurement testing.

The CPUC urges the FCC to require 5G Fund recipients to demonstrate milestone compliance with drive test data²⁰, until and unless recipients demonstrate that such test

¹⁸ *Ibid.*

¹⁹ *NPRM* para. 111, et seq.

²⁰ By "drive tests," the CPUC refers to outdoor stationary tests that capture, at a minimum, upload speed, download speed, latency, jitter, packet loss and failed connections. Tests must use commercially available mobile 5G consumer devices and be designed to reflect the consumer experience. Tests should be performed at predetermined locations selected to allow the creation of interpolated surfaces that accurately represent the speed and quality of service between test locations.

results validate the accuracy of propagation modeling and maps predicting coverage based on on-the-move radio frequency sampling.²¹

In addition, the term “drive tests” often includes two types of testing – tests taken from a moving vehicle and stationary tests taken at specific designated points. The CPUC believes drive tests should be designed to capture the service parameters likely to be experienced by consumers. Accordingly, the drive tests should be conducted using stationary testing, rather than testing from moving vehicles. Except for driving direction applications,²² the most important uses of mobile broadband service, particularly in rural areas lacking good fixed broadband service, will be stationary, such as two-way video streaming, emergency notification, distance learning, telework and telehealth applications. Stationary testing will most accurately capture this user experience.²³

VII. Require 5G Fund Recipients to Provide Affordable Plans, Devices, and Equipment During Declared Emergencies.

The *NPRM* does not consider public safety needs during declared emergencies and how 5G services can help address emergency situations. The District of Columbia Court of Appeals found in *Mozilla v. FCC* that the FCC erred in failing to consider public safety in its *Restoring Internet Freedom Order*, where it rescinded its net neutrality

²¹ See CPUC Comments, In re Digital Opportunity Data Collection; Modernizing the FCC Form 477 Data Program, WC Dockets Nos. 19-195, 11-10, at p. 6-8 (Sept. 24, 2019).

²² And autonomous driving applications in the future.

²³ For additional guidance on technical testing issues and recommend technical approaches consistent with the CPUC’s CalSPEED mobile testing methods, please refer to prior comments submitted by the CPUC to the FCC. E.g., see CPUC Comments, In re Digital Opportunity Data Collection; Modernizing the FCC Form 477 Data Program, WC Dockets Nos. 19-195, 11-10, (Sept. 24, 2019).

rules.²⁴ The CPUC urges the FCC to consider such issues and to impose conditions on 5G Fund awards to anticipate such events. Specifically, 5G Fund recipients should be required to implement an affordable class of service within its service footprint, suspend disconnects for non-payment, waive usage caps, and offer devices and equipment as emergency relief for any individual displaced by a state- or federally-declared disaster. This includes individuals under guidance to shelter-in-place during a federal, state, or local emergency. The FCC, and many States, including California, have asked Commercial Mobile Radio Service (CMRS) providers to implement such programs on a voluntary basis in response to COVID-19. For 5G Fund recipients, these actions should be mandatory as they will provide critical services during emergencies when ensuring public safety is key.

VIII. CONCLUSION

In summation, the CPUC recommends the FCC not limit Phase I implementation between two options. Instead, it should delay holding an auction after collecting better mobile broadband coverage data from States in 2021 but not wait until 2023. The FCC should also work with States in setting a process to prioritize rural areas, require recipients to offer service to 100 percent of their awarded areas in a State, remove any areas covered by T-Mobile merger commitments to the FCC and States, and implement drive tests to evaluate compliance with deployment and performance requirements.

²⁴ *Mozilla Corp. v. FCC*, 940 F.3d 1, 100 (D.C. Cir. 2019).

Finally, the FCC should require 5G recipients to provide affordable services, devices, and other equipment during declared emergencies to help ensure public safety.

Respectfully submitted,

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