

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
Rural Digital Opportunity Fund (RDOF) Auction) AU Docket No. 20-34
Competitive Bidding Procedures and Program) WT Docket No. 19-126
Requirements) WC Docket No. 10-90
)

REPLY COMMENTS OF ERICSSON

INTRODUCTION

Ericsson submits reply comments in response to the Public Notice issued in the above-captioned proceeding, which seeks comment on proposed competitive bidding procedures for the first phase of the Rural Digital Opportunity Fund (“RDOF”) auction. The RDOF auction will be a critical mechanism to facilitate the deployment of broadband networks in rural areas of America. As the Federal Communications Commission’s (“Commission”) 2019 Broadband Deployment Report highlights, while progress has been made to close the gap between rural and urban areas with respect to broadband availability, notable disparities remain.¹ To help close the gap, it is imperative that the Commission ensure a successful auction through robust bidder participation and a diversity of broadband technologies.

Ericsson is a leading provider and trusted supplier of information and communication technology to service providers around the globe. Ericsson is also very committed to closing the digital divide and bringing 5G to rural areas by establishing various partnerships with rural U.S.

¹ See *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 2019 Broadband Deployment Report, 34 FCC Rcd 3857, 3873 ¶ 33 (2019) (“over 26% of Americans in rural areas and 32% of Americans in Tribal lands lack coverage from fixed terrestrial 25 Mbps/3 Mbps broadband, as compared to only 1.7% of Americans in urban areas.”).

wireless Internet service providers and operators. Given Ericsson’s leading position in the 5G market, we are able to assist the Commission in establishing effective procedures and requirements to assure that rural Americans can reap the full benefits of high-speed broadband that their urban counterparts currently enjoy.

5G IS FOR BOTH MOBILE AND FIXED WIRELESS ACCESS

5G is not just for mobile broadband, it is applicable to fixed wireless access as well—in fact some of the first use cases for 5G are fixed wireless access (“FWA”) applications, such as wireless fiber solutions and connecting unserved areas. FWA can also be used for connectivity of small and medium enterprises.

With 5G providing up to 100 times more capacity than 4G networks, a 5G FWA network eliminates the need for costly deployment of fiber-based access infrastructure and offers peak rates that few other fixed technologies can match. 5G FWA can reduce the initial cost of last-mile connectivity by as much as 40 percent compared to fiber.²

For example, earlier this year, Ericsson partnered with Newport Utilities to build an FWA network in parts of Tennessee where wireline-based connectivity was cost prohibitive.³ The project will also provide high-speed broadband to underserved areas, which is important since 60 percent of school age children in Newport Utilities’ services area do not have broadband access at home.

² SNS Telecom & IT, *5G for FWA (Fixed Wireless Access): 2017 - 2030: Opportunities, Challenges, Strategies & Forecasts*, (Dublin, Aug. 2017).

³ Press Release, Ericsson, *Newport Utilities taps Ericsson for first rural Fixed Wireless Access network* (Mar. 3, 2020).

With over 30 million small businesses here in the U.S., approximately 80 percent of them are not leveraging the full advantage of digital tools. Yet, as highlighted in a recent Congressional field hearing, small businesses that use technology are three times more likely to create jobs and make a profit. FWA can provide greater connectivity to these business for them to fully utilize a vast array of digital tools to facilitate greater economic growth.

In addition, recent trials have already shown download speeds that well exceed one gigabit per second (“Gbps”). For example, in January, Telecom Italia surpassed 2 Gbps download speeds on its live 5G network using millimeter wave (“mmW”) spectrum it had recently acquired.⁴ This past February, Ericsson engineers, utilizing 800 MHz of mmW spectrum, achieved a downlink speed of 4.3 Gbps⁵ using commercially available solutions.

THE COMMISSION SHOULD NOT PROHIBIT FIXED WIRELESS FROM GIGABIT TIER

We agree with commenters⁶ that the Commission should not prohibit applicants’ eligibility to bid in the Gigabit Tier if they have not reported gigabit broadband service on its Form 477 data.⁷ As the Commission is clearly aware, wireless technologies are advancing at a significant rate. 5G is expected to be up to 100 times faster than 4G, supporting instant access to a myriad of new services and applications that were not available with 4G technology.

⁴ Bevin Fletcher, *TIM passes 2 Gbps barrier, claims European 5G speed record*, FierceWireless (Jan. 10, 2020).

⁵ News Release, Ericsson, *Ericsson researchers top 4.3Gbps downlink on 5G millimeter Wave* (Feb. 12, 2020).

⁶ See Comments of Cambium Networks; Comments of the Wireless Internet Service Providers Association (“WISPA Comments”); Comments of W.A.T.C.H. TV Company (“WATCH TV Comments”); Comments of Siklu Communications. All Comments referenced were filed in AU Docket No. 20-34 et al. on March 27, 2020.

⁷ See *Comments Sought on Competitive Bidding Procedures and Certain Program Requirements for the Rural Digital Opportunity Fund Auction (Auction 904)*, Public Notice, FCC 20-21, ¶ 51 (rel. Mar. 2, 2020) (“we propose precluding any applicant that intends to use fixed wireless or DSL technologies from bidding in the Gigabit tier if the applicant has not reported offering Gigabit broadband service in its FCC Form 477 data.”).

Several rural wireless Internet service providers have also recently acquired additional spectrum assets that will now allow them to provide gigabit broadband service.⁸ And because of the new applications and services enabled by 5G technology, there will be greater demand for gigabit services in rural areas, where there may have not been before.

We agree with WISPA’s comments⁹ that the “Commission ignores recent developments in citing December 2018 Form 477 data” and using data that is close to two years old, does not reflect the current capability and availability of fixed wireless services. Basing eligibility solely on most likely outdated data would unfairly penalize willing applicants that share the common goal of closing the broadband gap in rural America. If the Commission desires to require some type of eligibility to bid in the Gigabit Tier, it should use a combination of several parameters that provide a more comprehensive evaluation.

The Commission should not forget that fixed wireless in rural areas is typically a very cost-effective solution for broadband deployment. Therefore, precluding applicants that want to and can provide gigabit service from bidding in this tier could unduly suppress competitive bidding and result in an artificially high support level, which would produce a less cost-effective auction.

CONCLUSION

With clear evidence of multi-gigabit speeds available in technology trials and benchmarks and the cost-effective nature of fixed wireless, the Commission should not prohibit the eligibility of FWA applicants from bidding in the Gigabit Tier of the RDOF auction. Doing

⁸ See WATCH TV Comments at 2-3 (“Watch also acquired 1.9 GHz of 37 GHz spectrum across five Partial Economic Areas in the recently concluded Auction 103. . . . Watch will use its licensed spectrum to provide services up to one gigabit in areas where [they] intend to seek RDOF funding.”).

⁹ See WISPA Comments at 9.

so is possibly shortsighted and may hinder the Commission's goal of closing the broadband gap that exists between rural and urban areas.

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April 10, 2020