

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Amendment of Part 15 of the Commission's to)	RM-11812
Advance Improved Broadband Services in the)	
U-NII-1 and U-NII-3 Bands)	

**COMMENTS OF FRONTIER COMMUNICATIONS
CORPORATION AND WINDSTREAM SERVICES, LLC**

Frontier Communications Corporation (“Frontier”) and Windstream Services, LLC (“Windstream”) submit these comments in support of Radwin Ltd.’s Petition for Rulemaking requesting that the FCC modify its rules to allow for the provision of improved broadband services in two of the Unlicensed National Information Infrastructure (“U-NII”) bands – U-NII-1 (5.15-5.25 GHz) and U-NII-3 (5.725-5.85 GHz).¹ Not only are these proposed rule modifications consistent with the Commission’s approach in the 2400-2483.5 MHz (the “2.4 GHz”) band, but also, they will promote broadband deployment, particularly in rural areas, by allowing companies to provide better service with greater signal strength to even more customers.

I. FRONTIER AND WINDSTREAM INVEST BILLIONS IN RURAL BROADBAND DEPLOYMENT AND LEVERAGE THE UNII-1 AND UNII-3 BANDS FOR RURAL DEPLOYMENTS.

Our companies have an extensive track record of bringing broadband to rural Americans, particularly in areas where other large internet providers will not build.² Between the two

¹ Radwin Ltd., *Petition for Rulemaking*, RM-11812 (filed June 18, 2018).

² See, e.g., *Connect America Fund*, Report & Order, 26 FCC Rcd 17663 ¶ 177 (2011) (“*2011 USF/ICC Transformation Order*”) (“The fact that incumbent LECs’ have had a long history of

companies, Frontier and Windstream are in the process of investing more than three billion dollars to bring broadband to more than a million homes and businesses (representing almost two and a half million Americans) through year-end 2020 as part of Phase II of the Connect America Fund (“CAF”) program. We look forward to continuing expanding on these great successes, and as we have explained in other Commission dockets, smart wireless rules can help fuel further rural broadband deployment in the hardest to reach places.³

As part of this rural broadband expansion, Frontier and Windstream are busy testing and deploying wireless broadband, including using the UNII-1 and UNII-3 bands. As, for example, Frontier’s Chief Financial Officer has explained, Frontier “deployed two markets in 2017” and “has plans to deploy another 15 to 20 markets in 2018” with a “plan is to cover about 30,000 households by the end of the year.”⁴ These deployments leverage the UNII-1 and UNII-3 bands. Similarly, Windstream is currently utilizing the UNII-1 and UNII-3 bands to deliver broadband to around 9,000 households in Oklahoma and around 200 households in Iowa, and Windstream has plans to extend its fixed wireless footprint to around 6,500 total households in Iowa by the

providing service” in rural America “puts them in a unique position to deploy broadband networks rapidly and efficiently in [these] areas.”).

³ See, e.g., Comments of Frontier, Windstream, and Consolidated, GN Docket No. 17-183 & RM-11791 (Oct. 2, 2017) (“*Mid-Size ILECs 3.7-4.2 Comments*”); Comments of Frontier, Windstream, and Consolidated, GN Docket 17-258 (Dec. 28, 2017) (“*Mid-Size ILECs CBRS Comments*”).

⁴ Frontier Communications, *Q1 2018 Results – Earnings Call Transcript* (May 1, 2018), available at <https://bit.ly/2LlzZMb>; see also Perley McBride, CFO, Frontier Communications, *Interview at Goldman Sachs Annual Communacopia Conference* (Sept. 12, 2017), available at <https://bit.ly/2K8UkyX> (explaining “[Frontier] see[s] [wireless] as another opportunity to . . . create a better broadband product” in rural America).

end of next year.⁵ Windstream is also considering “deployments in locations in Missouri, Nebraska and elsewhere.”⁶ To the extent the Commission can improve the rules in the UNII-1 and UNII-3 bands, as, for example, proposed by Radwin, the Commission can even further expand these opportunities for deployment.

II. RADWIN’S PROPOSED RULE MODIFICATIONS WILL ENABLE MORE, BETTER QUALITY BROADBAND IN THE UNII-1 AND UNII-3 BANDS.

Radwin’s commonsense proposed rule modifications would enable even further use of the UNII-1 and UNII-3 bands to deploy more reliable and faster speeds to more rural people. In particular, higher authorized power limits coupled with beam-forming protections will allow for stronger signals without adding congestion to the band. Indeed, by incentivizing next-generation antenna technologies, including beam-forming and beam-steering, the proposed rules may reduce congestion compared to the current rules that may inadvertently incentivize less wide-sector, non-directional emissions.

Based on our companies’ experiences, Frontier and Windstream believe the proposed rule changes allow for greater quality of service for existing and future UNII-1 and UNII-3 deployments. Under the proposed rules, wireless links to customers would be less susceptible to interference and interruptions. At the same time, the rules could enable providers to reach a limited number of additional customers that are further away or would not otherwise be served.

⁵ Mike Dano, *Windstream Peels Back the Curtain on Its Fixed Wireless Deployments*, FIERCE WIRELESS (May 7, 2018 8:36 AM), <https://www.fiercewireless.com/wireless/windstream-peels-back-curtain-its-fixed-wireless-deployments>.

⁶ *Id.*

As the companies are investing billions of dollars in rural broadband, these types of smart rule changes can allow Frontier and Windstream to provide better broadband to more people.

Radwin’s proposal is especially straightforward and attractive since it is patterned after the rules already in place in the 2.4 GHz band.⁷ As Radwin explains, “[t]he same rationale that the Commission relied upon in adopting the rules in Section 15.247(c) for the 2.4 GHz band applies to unlicensed devices operating with sequential multiple directional beams in the 5 GHz band as well.”⁸ Given the experience with beam-forming and beam-steering in that band and the relative success there, extending these rules to the UNII-1 and UNII-3 bands is an easy win for the Commission.

⁷ See 47 C.F.R. § 15.247(c).

⁸ *Radwin Petition* at 5.

III. CONCLUSION

Updating the rules governing the U-NII-1 and U-NII-3 band to conform with the rules already in place for the 2.4 GHz band by allowing next-generation beam-forming antennas to operate at increased power levels will enable the deployment of better quality of service broadband to more people without increasing interference or adversely affecting existing usage in the band. By adopting this commonsense proposal, the Commission can reap great dividends for rural broadband and enable companies to unleash faster broadband for an even greater number of rural Americans.

Respectfully submitted,

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