

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Use of Spectrum Bands Above 24 GHz for)	GN Docket No. 14-177
Mobile Radio Services)	
)	
Amendment of Parts 1, 22, 24, 27, 74, 80, 90,)	WT Docket No. 10-112
95, and 101 To Establish Uniform License)	
Renewal, Discontinuance of Operation, and)	
Geographic Partitioning and Spectrum)	
Disaggregation Rules and Policies for Certain)	
Wireless Radio Services)	

COMMENTS OF FEDERATED WIRELESS, INC.

Federated Wireless, Inc. (“Federated Wireless”) submits these comments in response to the Third Further Notice of Proposed Rulemaking (“Third FNPRM”) in the above-captioned proceeding.¹ Federated Wireless, a leading innovator of and advocate for shared spectrum solutions, shares the enthusiasm of the Federal Communications Commission (“Commission”) for identifying and allocating additional spectrum for sharing between and among varying uses and users. In particular, Federated Wireless applauds the Commission for its innovative “bidirectional sharing” framework for the 37-37.6 GHz band (“Lower 37 GHz Band”), which will allow Federal and non-Federal users to share the band on a truly co-primary basis. In these comments, Federated Wireless urges the Commission to expeditiously facilitate access to this valuable 5G spectrum by adopting a coordination mechanism that will enable initiation of operations at the earliest opportunity through automation and dynamic coordination technologies

¹ *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, Amendment of Parts 1, 22, 24, 27, 74, 80, 90, 95, and 101 To Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services*, GN Docket No. 14-177, WT Docket No. 10-112, Third Report and Order, Memorandum Opinion and Order, and Third Further Notice of Proposed Rulemaking, FCC 18-73 (2018) (the Third Further Notice of Proposed Rulemaking, the “Third FNPRM”).

that are already available and that will ensure that the Lower 37 GHz Band fosters the innovative uses the Commission envisions.

I. THE COMMISSION SHOULD ADOPT A COORDINATION MECHANISM THAT ENABLES RAPID ACCESS TO THE LOWER 37 GHZ BAND AND BUILDS IN THE AUTOMATED FUNCTIONALITIES NEEDED TO SUPPORT DISPARATE USES AND DENSE OPERATIONS.

In the Third FNPRM, the Commission states its expectation that there will be “at least four types of non-Federal deployments in the Lower 37 GHz Band: point-to-point links (for example backhaul and backbone links); fixed wireless broadband systems (generally consisting of a fixed access point and fixed subscriber units); single base station IoT-type systems (for example, in a factory); and carrier-based deployments of mobile systems using the Lower 37 GHz Band as supplemental capacity tied to other bands that are licensed on a geographic area basis.”² To effectuate sharing not only among these varied non-Federal deployments, but also bidirectional sharing among Federal and non-Federal users in the Lower 37 GHz Band, the Commission seeks comment on whether coordination should be implemented using the Part 101 notice and response rules.³

Utilizing Part 101-type coordination procedures could be useful for the Lower 37 GHz Band. It is crucial, however, that from the outset the coordination mechanism also builds in automation of the interference modeling and site registrations needed to facilitate sharing in the band. As a result of the Commission’s decision to promote such automation and dynamic sharing capabilities from the outset of the shared Citizens Broadband Radio Service (“CBRS”), interest and investment in the CBRS has accelerated at an exponential rate and the dynamic sharing framework has enabled the development of a number of disparate business cases for use

² *Id.* at ¶ 63.

³ *Id.* at ¶ 64.

of the CBRS spectrum. In contrast, without such automation, as more Federal and non-Federal users emerge, interference modeling calculations will become more complex. Legacy, manual Part 101 coordination procedures will not work as use of the band intensifies, becoming a bottleneck to deployment of innovative technologies and services.⁴ Such an outcome would clearly contravene the Commission’s vision to implement a sharing regime for the Lower 37 GHz Band, that turns it into “an innovation band in the mmW spectrum.”⁵

Federated Wireless supports the phased approach to coordination of shared spectrum use in the Lower 37 GHz Band as proposed by Starry, provided that coordination of operations leverages automation in both the initial and enhanced sharing phases.⁶ Under the Starry proposal, there would be an initial period during which coordination of the bands would be premised largely on site-based interference modeling and registration of coordinated sites, with users providing the coordinator with the location, height, power level, azimuth, and channel size and aggregation of their requested transmitters to enable the coordinator to conduct necessary interference modeling and ensure protection of previously registered sites.⁷ This relatively simple, largely static coordination mechanism would quickly facilitate initial shared access to the Lower 37 GHz Band. Subsequently, as use of the band increases and the varied deployment models are better understood, Starry proposes an enhanced sharing framework that could involve more dynamic coordination and the use of sensing technologies to enable opportunistic use of the

⁴ An overlay of automation technology, after legacy manual coordination processes are already in place, will add unnecessary complication. Indeed, the Commission must act now to ensure that shared use of the band can evolve in a productive and frictionless manner.

⁵ *Id.* at ¶ 63.

⁶ See Letter from Virginia Lam Abrams, Starry, Inc. to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177 *et al.* (filed July 14, 2017).

⁷ *Id.* at 3-4.

Lower 37 GHz Band when and where shared access licensees are not operating.⁸ Federated Wireless agrees with Starry that the coordination mechanism for the Lower 37 GHz Band must be responsive to the emergence of new use cases and the densification of operations in the band, and thus must contemplate dynamically coordinating and facilitating the most intensive spectrum use possible.

II. CONCLUSION.

For the foregoing reasons, the Commission should move expeditiously to establish a coordination framework for the Lower 37 GHz Band with a straightforward set of initial baseline requirements that coordinators must meet, including automated interference analysis and site registration. Coordinators also should be allowed to augment their services with more dynamic capabilities that will increase the density of Lower 37 GHz Band operations as use of the band intensifies, enabling the mechanism to grow with the band. Doing so will ensure that the Lower 37 GHz Band becomes a true “innovation band,” with dense, innovative shared use of this scarce spectrum resource throughout the nation.

Respectfully submitted,

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⁸ *Id.* at 6-7.