

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

In the Matter of)	
)	
Use of Spectrum Bands Above 24 GHz For Mobile Radio Services)	GN Docket No. 14-177
)	
)	
Establishing a More Flexible Framework to Facilitate Satellite Operations in the 27.5-28.35 GHz and 37.5-40 GHz Bands)	IB Docket No. 15-256
)	
)	
Petition for Rulemaking of the Fixed Wireless Communications Coalition to Create Service Rules for the 42-43.5 GHz Band)	RM-11664
)	
)	
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)	WT Docket No. 10-112
)	
)	IB Docket No. 97-95
Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz and 48.2-50.2 GHz Frequency Bands; Allocation of Spectrum to Upgrade Fixed and Mobile Allocations in the 40.5-42.5 GHz Frequency Band; Allocation of Spectrum in the 46.9-47.0 GHz Frequency Band for Wireless Services; and Allocation of Spectrum in the 37.0-38.0 GHz and 40.0-40.5 GHz for Government Operations)	

**REPLY COMMENTS OF
SOUTHERN COMPANY SERVICES, INC.**

Southern Company Services, Inc. (“Southern”), on behalf of itself and its operating affiliates, hereby submits its reply to certain comments that were filed in response to the *Notice*

of Proposed Rulemaking, FCC 15-138 (“*NPRM*”), in the above-captioned matter.¹ Southern’s reply comments are limited to addressing the performance and license renewal requirements for the proposed Upper Microwave Flexible Use Service. Because this proceeding has partially reopened the record in WT Docket No. 10-112, which was initiated for the development of uniform renewal criteria for a variety of wireless services, Southern urges the Commission to adopt performance and renewal criteria for these bands that could also serve as the basis for performance and renewal criteria in other wireless services where flexible use is permitted. \

I. Introduction

By way of introduction, Southern Company Services, Inc. is a wholly-owned subsidiary service company of Southern Company, a super-regional energy company in the Southeast United States. Southern Company also owns four electric utility subsidiaries – Alabama Power Company, Georgia Power Company, Gulf Power Company, and Mississippi Power Company – which provide retail and wholesale electric service throughout a 120,000 square mile service territory in Georgia, most of Alabama, and parts of Florida and Mississippi. Members of the Southern Company family use a variety of communications technologies, including FCC licensed spectrum, to support the safe and efficient delivery of energy services to their customers.

II. Performance Standards Must be as Flexible as the Potential Uses of the Spectrum

Along with proposing flexible use of these bands, the Commission has proposed to adopt a universal performance metric that could work across various types of services, whether mobile,

¹ 30 FCC Rcd 11878 (2015). By *Public Notice*, DA 16-162, released February 17, 2016, the deadline for Reply Comments was extended to February 26, 2016.

fixed, or satellite.² The Commission suggests that, of the traditional performance metrics, population coverage might be the one that is most naturally suited to encompass both mobile and fixed network topologies. The Commission proposes that a licensee would be required to demonstrate that it provides reliable signal coverage over the centroids of a sufficient number of census blocks having a total population equal to at least 40% of the population of each county the licensee wishes to retain as part of its license. Licensees would have to demonstrate that all of the requisite infrastructure elements are in place and operational, and that radio facilities are part of a network that provides ongoing service to “unaffiliated paying subscribers or for *bona fide* private users.”³

Southern appreciates that the Commission’s proposal includes explicit consideration of radio systems that are used for private, internal use. In many existing radio services, the performance and renewal requirements were adopted under an assumption that the frequencies would only be used for the provision of commercial service to the public. The performance rules also generally assume that commercial licensees have an economic incentive to provide coverage to areas of high residential population, and therefore a demonstration of population coverage is a reasonable metric. However, these same assumptions do not necessarily apply to private, internal use systems because, in many cases, private systems are designed to provide service to field crews in areas of very low population density, or to provide connectivity with monitoring and control devices that may or may not be located in areas of high population density. These latter systems, traditionally called Supervisory Control and Data Acquisition (SCADA) systems, are

² *NPRM*, para. 204.

³ *Id.*, para. 207.

machine-to-machine (M2M) communications systems that are specifically contemplated for potential deployment in the millimeter wave bands.

Although it is not yet known whether operators of private, internal systems will seek to acquire these licenses at auction or on the secondary market, Southern urges the Commission to adopt performance and renewal requirements that better accommodate both commercial and private systems. Although relatively few parties submitted comments on the performance metrics for these bands, those that did also recommended greater flexibility. A number of parties recommended adoption of multiple performance metrics instead of just coverage over residential population; for example, metrics based on usage and/or service levels, such as number of transmitters placed in service, number of connected devices, amount of traffic carried or the number of sessions established.⁴ Similarly, a few parties recommended a “substantial service” requirement at the end of the 10-year license term, with safe harbors that could be based on factors such as throughput on the network, or the investment in the network.⁵

Intel recommended adoption of a performance “framework” rather than a fixed performance metric.⁶ Under this proposal, the Commission would define several categories of possible network configurations and uses: for example, a “unit-based” metric allowing consideration of the number of people, devices or sensors connected to the network; an “area-based” metric that allows consideration of the geographic area covered by the licensee’s network; and a “usage-based” metric that allows consideration of busy-hour traffic carried or sessions established. Each licensee could pick the category that best fits the service it provides.

⁴ Comments of Nokia at 20; 4G Americas at 10-11; Cisco Systems, Inc. at 13-14.

⁵ Comments of AT&T at 22-23; CTIA at 23-26; Verizon at 18-20.

⁶ Comments of Intel Corporation at 24-25.

Southern agrees that a framework such as this would provide an appropriate balance between the Commission's goal of ensuring that spectrum is put to use, and flexibility for each licensee to use the spectrum without fear that its licenses could be jeopardized for failure to meet an arbitrary population coverage benchmark or an ambiguous "substantial service" standard. Private licensees, in particular, need assurance that they can acquire spectrum and use it for applications such as SCADA, M2M, or other operations where coverage over residential population is largely, if not totally, irrelevant to the purpose and design of the network. Flexibility of use, in these bands or other bands, should be accompanied by performance and renewal standards that take this flexibility in account and do not operate at cross-purposes with it.

III. Conclusion

WHEREFORE, THE PREMISES CONSIDERED, Southern Company Services, Inc. respectfully requests that the Commission adopt final rules in this docket consistent with the views expressed herein.

Respectfully submitted,

SOUTHERN COMPANY SERVICES, INC.

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