Use of Spectrum Bands Above 24 GHz for Mobile Radio Services **3060-XXXX**

January 2016

SUPPORTING STATEMENT

1. **Justification:**

1. The Federal Communications Commission (Commission) adopted Use of Spectrum

Bands Above 24 GHz for Mobile Radio Services in a Notice of Proposed Rulemaking (NPRM), Docket No. 14-177, FCC 15-138, on October 22, 2015, published in the Federal Register on January 13, 2016 (81 FR 1802). In this NPRM, the Commission proposed service rules for licensing of mobile and other uses for millimeter wave (mmW) bands. This NPRM will help facilitate Fifth Generation mobile services and other mobile services. In developing service rules for mmW bands, the Commission will facilitate access to spectrum, develop a flexible spectrum policy, and encourage wireless innovation.

The FCC seeks a pre-approval from the Office of Management and Budget (OMB) for information collection proposed for 47 C.F.R. Part 30 – Upper Microwave Flexible Use Service. Part 30 is a new collection under this NPRM titled Use of Spectrum Bands Above 24 GHz for Mobile Radio Services, GN Docket No. 14-177, IB Docket Nos. 15-256 and 97-95, RM-11664, WT Docket No. 10-112, and FCC 15-138.

Statutory authority for this collection are contained in sections 1, 2, 3, 4, 5, 7, 10, 201, 225, 227, 301, 302, 302a, 303, 304, 307, 309, 310, 316, 319, 332, and 336 of the Communications Act of 1934, 47 U.S.C. §§ 151, 152, 153, 154, 155, 157, 160, 201, 225, 227, 301, 302, 302a, 303, 304, 307, 309, 310, 316, 319, 332, 336, Section 706 of the Telecommunications Act of 1996, as amended, 47 U.S.C. § 1302.

This information collection does not affect individuals or households; thus, there are no impacts under the Privacy Act.

A description of each rule section and the new information collection it requires are as follows:

New Information Collection Requirements

**§ 30.3 Eligibility ‒** *Foreign ownership reports.*

Any entity who meets the technical, financial, character, and citizenship qualifications that the Commission may require in accordance with such Act, other than those precluded by section 310 of the Communications Act of 1934, as amended, 47 U.S.C. 310, is eligible to hold a license under this part.[[1]](#footnote-1)

This rule section also has a recordkeeping component and third party disclosure requirement associated with the information sharing requirements because licensees may be required to put the information into a database and share it with multiple parties.

**§ 30.105, Subpart B – Applications and Licenses ‒** *Construction Requirements.*

(a) Upper Microwave Flexible Use Service licensees must make a buildout showing as part of their renewal applications. Licensees providing mobile, point-to-multipoint, or point-to-point service, must demonstrate that they are providing reliable signal coverage and service to at least 40 percent of the population within the service area of the licensee, and that they are using facilities to provide service in that area either to customers or for internal use. In determining the percentage of population covered in each county, the population covered by a licensee’s service area will be measured at the census block level, using the centroid of each census block from the most recent U.S. Census. If the total population of the census blocks covered by the licensees reliable signal is 40% or greater the licensee will be deemed to have met the performance requirement. Failure to meet this requirement will result in automatic cancellation of the license.

(b) Existing 39 GHz licensees shall not be required to make a showing pursuant to this rule and shall be governed by the provisions of § 101.17 of this chapter if the expiration date of their license is prior to March 1, 2021.

**§ 30.107, Subpart B – Applications and Licenses ‒** *Discontinuance of Service.*

(a) An Upper Microwave Flexible Use License authorization will automatically terminate, without specific Commission action, if the licensee permanently discontinues service after the initial license term.

(b) For licensees with common carrier regulatory status, permanent discontinuance of service is defined as 180 consecutive days during which a licensee does not provide service to at least one subscriber that is not affiliated with, controlled by, or related to the licensee in the individual license area. For licensees with non-common carrier status, permanent discontinuance of service is defined as 180 consecutive days during which a licensee does not operate.

(c) A licensee that holds a 600 MHz band authorization or an AWS authorization in the 1695-1710 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2155-2180 MHz, and 2180-2200 MHz bands, that permanently discontinues service as defined in this section must notify the Commission of the discontinuance within 10 days by filing FCC Form 601 or 605 requesting license cancellation. An authorization will automatically terminate, without specific Commission action, if service is permanently discontinued as defined in this section, even if a licensee fails to file the required form requesting license cancellation.

**§ 30.205, Subpart C – Technical Standards ‒** *Information Sharing Requirements.[[2]](#footnote-2)*

(a) Each operator of a Fixed Service or Mobile Service system in the 27.5-28.35 GHz or 37.5-40 GHz band will make the technical information about its system listed in subsections (b) and (c) of this section available to FSS operators by one or more of the following means:

(1) an online database operated by the Upper Microwave Flexible Use licensee;

(2) an online database operated by a third-party database manager, or

(3) a continuously transmitted pilot signal receivable throughout the terrain within which a FSS facility could cause interference to or receive interference from the terrestrial system.

(b) All licensees deploying fixed systems in the 27.5-28.35 GHz or 37.5-40 GHz bands will make the following information about each such system available to FSS operators in those bands by one or more of the means described in subsection (a) of this section: Licensee's name and address; Transmitting station name; Transmitting station coordinates; Frequencies and polarizations; Transmitting equipment, its stability, effective isotropic radiated power, emission designator, and type of modulation (digital); Transmitting antenna(s), model, gain, and a radiation pattern provided or certified by the manufacturer; Transmitting antenna center line height(s) above ground level and ground elevation above mean sea level; Transmitting antenna boresight(s) angle of elevation with respect to the horizon; Receiving station name; Receiving station coordinates; Receiving antenna(s), model, gain, and, if required, a radiation pattern provided or certified by the manufacturer; Receiving antenna center line height(s) above ground level and ground elevation above mean sea level; Receiving antenna boresight(s) angle of elevation with respect to the horizon; and Path azimuth and distance.

(c) All licensees deploying mobile service base stations in the 27.5-28.35 GHz or 37.5-40 GHz bands will make the following information about each such base station available to FSS operators by one or both of the means described in subsection (a) of this section: Licensee's name and address; Transmitting station name; Transmitting station coordinates; Frequencies and polarizations; Transmitting equipment, its stability, maximum effective isotropic radiated power, emission designator, and types of modulation; Transmitting antenna(s), model, maximum gain, and maximum extent of all possible radiation patterns provided or certified by the manufacturer; Transmitting antenna center line height(s) above ground level and ground elevation above mean sea level; Transmitting antenna boresight(s) maximum and minimum angles of elevation with respect to the horizon; Transmitting antenna boresight minimum and maximum azimuths, or designation of omnidirectionality; Boundary of the area served by the base station for purposes of communication with mobile user equipment; Receiving antenna(s), model, gain, and maximum extent of all possible radiation patterns provided or certified by the manufacturer; Receiving antenna center line height(s) above ground level and ground elevation above mean sea level; Receiving antenna boresight maximum and minimum angles of elevation with respect to the horizon; and Receiving antenna boresight minimum and maximum azimuths, or designation of omnidirectionality.

1. The projected reporting, recordkeeping, and other compliance requirements proposed in

this NPRM will apply to all entities in the same manner. The Commission believes that applying the same rules equally to all entities in this context promotes fairness. The Commission does not believe that the costs and/or administrative burdens associated with the proposed rules will unduly burden small entities, as discussed below. The revisions the Commission adopts should benefit small entities by giving them more information, more flexibility, and more options for gaining access to wireless spectrum.

Any applicants for Upper Microwave Flexible Use Service licenses will be required to file license applications using the Commission’s automated Universal Licensing System (ULS). ULS is an online electronic filing system that also serves as a powerful information tool, one that enables potential licensees to research applications, licenses, and antenna structures. It also keeps the public informed with weekly public notices, FCC rulemakings, processing utilities, and a telecommunications glossary. Upper Microwave Flexible Use Service applicants that must submit long-form license applications must do so through ULS using Form 601, FCC Ownership Disclosure Information for the Wireless Telecommunications Services using FCC Form 602, and other appropriate forms.

Applicants in the Upper Microwave Flexible Use Service will be required to meet buildout requirements at the end of their initial license terms. In doing do, they will be required to provide information to the Commission on the facilities they have constructed, the nature of the service they are providing, and the extent to which they are providing coverage in their license area.

We also propose to require Upper Microwave Flexible Use Service licensees to provide information on their proposed operations in order to facilitate sharing with other authorized services. We seek comment on the scope of the information to be provided and the manner in which it should be provided.

1. The Commission’s rules provide for electronic filing, as stated in No. 2, and it is the

Commission’s goal to eliminate, to the greatest extent possible, the filing of paper applications.

1. The Commission does not impose a similar information requirements on the respondents;

therefore, the NPRM does not impose duplicative information to be collected. Similar data is not available elsewhere.

1. The proposal in the NPRMto license the 28 GHz, 39 GHz bands using county-sized

licenses. We also propose to assign outdoor rights in the 37 GHz band using county size licenses. These license areas are small enough to provide spectrum access opportunities for smaller carriers. County license areas also nest within and may be aggregated up to larger license areas. Therefore, the benefits and burdens resulting from assigning spectrum in county license areas are equivalent for small and large businesses. Depending on the licensing mechanism we adopt, licensees may adjust their geographic coverage through auction or, as we discuss in section IV.E.8 of the NPRM, through secondary markets. This proposal should enable providers, or any entities, whether large or small, providing service in the mmW bands to more easily adjust their spectrum to build their networks pursuant to individual business plans. As a result, we believe the ability of licensees to adjust spectrum holdings will provide an economic benefit by making it easier for small entities to acquire spectrum or access spectrum.

The proposals to facilitate satellite service in the 28 GHz, 39 GHz, and 37 GHz would facilitate service by all Fixed Satellite Service entities, including small entities.

The NPRM proposal in section IV.E.10 pertaining to how the mmW band licenses will be assigned includes proposals to assist small entities in competitive bidding. We propose that the Commission would conduct any auction for licenses for spectrum in the mmW bands in conformity with the general competitive bidding rules set forth in Part 1, Subpart Q, of the Commission’s rules, and substantially consistent with the competitive bidding procedures that have been employed in previous auctions. Specifically, we propose to employ the Part 1 rules governing competitive bidding design, designated entity preferences, unjust enrichment, application and payment procedures, reporting requirements, and the prohibition on certain communications between auction applicants. Specifically, small entities will benefit from the proposal to provide small businesses with a bidding credit of 15 percent and very small businesses with a bidding credit of 25 percent. Providing small businesses and very small businesses with bidding credits will provide an economic benefit to small entities by making it easier for small entities to acquire spectrum or access to spectrum in these bands.

In section IV.F of the NPRM, the Commission proposes service rules that permit a licensee to employ the spectrum for any non-Federal fixed or mobile use, subject to the Commission’s proposed Part 30 flexible use and other applicable rules (including service rules to avoid harmful interference). The technical rules we propose or seek comment on will allow licensees of mmW band spectrum to operate while also protecting licensees of nearby spectrum, some of whom are small entities, from harmful interference.

We propose to permit partitioning and disaggregation by licensees in the mmW bands. These secondary market rules apply equally to all entities, whether small or large. We believe the opportunity to enter into secondary market agreements for mmW band spectrum will provide an economic benefit to all entities, whether large or small. Therefore, the benefits and burdens resulting from secondary market agreements for spectrum are equivalent for small and large businesses.

1. Information collection is required when an applicant seeks Commission approval for new or modified facilities, or for an assignment or transfer of control. The frequency of the filing is generally determined by the applicant. Renewal applications must be filed once every ten years.
2. No special circumstances are associated with this collection of information that would

make the current data collection inconsistent with 5 C.F.R. § 1320.5.

8. The 60-day notice soliciting public comments on this collection was published in the Federal Register as required under 5 C.F.R. § 1320.8(d) on January 13, 2016 (81 FR 1802). To date, the Commission has not received any comments from the public on the proposed information collections contained in this collection.

9. Respondents will not receive any payments in connection with collection of information.

10. No need for confidentiality with this information collection.

11. This collection of information does not address private matters or questions of a sensitive nature.

12. Annual Burden: For the purpose of this supporting statement, the Commission estimates the number of respondent burden hours for each new rule section. The chart below outlines the number of respondents, frequency of response, time per response, and total annual burden hours for each new collection.

For Section 30.105 of the Commission’s rules, we estimate that 25% of the respondents will contract consultants to handle the burden of reporting; the remaining 75% of respondents will employ in-house staff to respond. For the other rules, we estimate that in-house staff will comply with the reporting requirements. We assume that the respondents will use in-house staff attorney ($66.88/hour) or engineer ($44.24/hour) to consult and prepare information.[[3]](#footnote-3)

The Commission calculates the burden from each proposed rule to be as follows:

**Annual Burden**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Respondents | Estimated Number of Respondents | Estimated Frequency of Responses | Total Number of Responses | Time per Response (Hours) | Total Annual Burden Hours | Effective Date |
| a. | §30.3, Eligibility, Foreign ownership reports | 30 | On occasion | 30 | 0.5 | 15 | Shortly after adoption of rules |
| b. | §30.105, Subpart B – Applications and Licenses  Construction requirements | 0 | At end  of license term | 0 | 2 | 0 | N/A during current 3-year approval period |
| c. | §30.107, Subpart B – Applications and Licenses  Discontinuance of Service | 0 | On occasion | 0 | 0.5 | 0 | N/A during current 3-year approval period |
| d. | §30.205, Subpart C – Technical Standards  Information Sharing Requirements | 5 | On occasion,  Third party disclosure, Record keeping Requirement | 100 | 10 | 5,000 | Shortly after adoption of rules |
|  | **Totals:** | **35** |  | **130** | **.5-10** | **5,015** |  |

**12-a.** *Reporting ‒ Compliance with §30.3, Eligibility, Foreign ownership reports.* The Commission seeks approval for the estimated burden of 0.5 hours to complete a filing and from 30 possible (respondents) licensees maybe one respondent will submit a response at least once per year. The Commission estimates that an in-house attorney paid at an hourly rate of $66.88/hour will make the filing.

**Annual Burden:** 30 respondents x 1 response each x 0.5 hours per response = **15 hours.**

**In-House Staff Cost:** 30 respondents x 1 response each x 0.5 hour of attorney time per response x $66.88/hour = **$1,003.20.**

**12-b.** *Reporting ‒ Compliance with §30.105, Subpart B – Applications and Licenses, Construction requirements.* The Commission requires that Upper Microwave Flexible Use Service licensees shall demonstrate compliance with their performance requirements by filing a construction notification with the Commission. The first renewal period should be 10 years after the initial license is granted under §30.105, Subpart B – Applications and Licenses ‒ Construction Requirements. Since the first license renewal application will not be filed until 10 years after the initial license is granted, we do not anticipate burden hours for this collection during the next three-year approval period. When a licensees file a construction notification, we estimate about 2 hours per response.

= **0 hours** (this entry is on the statement merely to remind FCC staff to re-activate it in the future and to act as a place holder for this requirement.)

**12-c.** *Reporting ‒ Compliance with §30.107, Subpart B – Applications and Licenses, Discontinuance of Service.* Upper Microwave Flexible Use Service licensees must notify the Commission within 10 days of discontinuance if they permanently discontinue service by filing FCC Form 601 or 605 to request license cancellation. Since the first license renewal application will not be filed until 10 years after the initial license is granted, we do not anticipate burden hours for this collection during the next three-year approval period. When a licensees file a discontinuance of service, we estimate about .5 hours per response.

= **0 hours** (this entry is on the statement merely to remind FCC staff to re-activate it in the future and to act as a place holder for this requirement.)

**12-d.** *Reporting ‒ Compliance with §30.205, Subpart B – Applications and Licenses ‒* *Technical Standards and Information Sharing Requirements.* This information sharing requirement will be triggered when a licensee builds a base station. The Commission estimates that 5 different licensees will construct approximately 500 base stations within the next three years and that each information exchange will take approximately ten hours of in-house engineer time. The in-house engineer will be paid an hourly rate of $44.24/hour.

**Annual Burden:** 5 respondents x 100 response each x 10 hours of engineer time per response = **5,000 hours**.

**In-House Staff Cost:** 5 respondents x 100 response each x 10 hours of engineer time per response x $44.24/hour **= $221,200.**

**TOTAL ANNUAL BURDEN: 15 + 0 + 0 + 5,000 = 5,015 HOURS.**

**IN-HOUSE STAFF COST: $1,003.20 + 0 + 0 + $221,200 = $222,203.20.**

13. Annual Cost: Applicants should not incur outside capital and star-up costs and/or operation and maintenance of purchase or services in connection with this information collection.

**TOTAL CAPITAL AND START-UP COSTS and/or OPERATION AND MAINTENANCE (O&M COSTS): None.**

14. Government Costs:

**14-a.** *Compliance with Performance Requirements pursuant to §30.3 – Edibility, Foreign ownership reports.* The Commission will use a reviewer at the rate of $23.72 per hour, and the review process should take about a quarter of an hour. The cost to the Federal government processing costs are as follows (the hourly pay rate for the employee is a GS-7 step 5, $23.72/hour).

Annual Cost: 30 respondents x .25 hours/review x $23.72/hour = **$177.90**

**14-b.** *Compliance with Performance Requirements pursuant to §30.105, Subpart B – Applications and Licenses, Construction requirements.* The first notification need not be filed until 12 years after the initial license is granted under §30.105, Subpart B – Applications and Licenses ‒ Construction Requirements. Thus, we do not anticipate any burden hours to the Commission for this collection during the next three-year approval period.

Annual Cost: **$0**

**14-c.** *Compliance with §30.107, Subpart B – Applications and Licenses, Discontinuance of Service.* We do not anticipate any notifications being filed for this collection during the next three-year approval period; therefore, we do not anticipate any burden hours to the Commission for this collection during the next three-year approval period.

Annual Cost: **$0**

**14-d.** *Compliance with Performance Requirements pursuant to §30.205, Subpart C – Technical Standards, Information Sharing Requirements.* Since the information is shared with third parties, there is no cost associated with government review of the information.

Annual Cost: **$0**

**TOTAL ANNUAL COST: $177.90 + 0 + 0 + 0 = $177.90**

15. This is a new collection. If the Commission adopts the information collection requirements in a final rulemaking 35 respondents, 130 responses, 5,015 annual burden hours, and no annual costs will be added in OMB’s inventory. This is due to the information collection requirements adopted in Part 30.

16. The data will not be published for statistical use.

17. OMB approval of the expiration of the information collection will be displayed at 47 C.F.R. Section 0.408.

18. No exceptions have been identified in the Certification Statement.

1. **Collections of Information Employing Statistical Methods:**

No statistical methods are employed.

1. In order to comply with the foreign ownership provisions of 47 U.S.C. Sec. 310, certain licensees will be required to file requests for approval of foreign ownership pursuant to Sections 1.990-1.994 of the Commission’s rules. This collection seeks approval for collection of foreign ownership information from Part 30 licensees. [↑](#footnote-ref-1)
2. This rule section, Information Sharing Requirements, has a record keeping component as well as a third party requiring component because licensees may be required to put the information into a database and share it with multiple parties.

   [↑](#footnote-ref-2)
3. U.S. Bureau of Labor Statistics, Occupational Employment and Wages, May 2014, Attorney and Engineer, Hourly Means Wage [↑](#footnote-ref-3)