



Federal Communications Commission  
Washington, D.C. 20554

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## **Small Entity Compliance Guide**

### **Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions**

Report and Order  
GN Docket No. 12-268  
FCC 15-140  
Released October 22, 2015

**This Guide is prepared in accordance with the requirements of Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996. It is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—comply with the new rules adopted in the above-referenced FCC rulemaking docket(s). This Guide is not intended to replace the rules and, therefore, final authority rests solely with the rules. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. This Guide may, perhaps, not apply in a particular situation based upon the circumstances, and the FCC retains the discretion to adopt approaches on a case-by-case basis that may differ from this Guide, where appropriate. Any decisions regarding a particular small entity will be based on the statute and regulations.**

**In any civil or administrative action against a small entity for a violation of rules, the content of the Small Entity Compliance Guide may be considered as evidence of the reasonableness or appropriateness of proposed fines, penalties or damages. Interested parties are free to file comments regarding this Guide and the appropriateness of its application to a particular situation; the FCC will consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The FCC may decide to revise this Guide without public notice to reflect changes in the FCC's approach to implementing a rule, or to clarify or update the text of the Guide. Direct your comments and recommendations, or calls for further assistance, to the FCC's Consumer Center:**

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## I. OBJECTIVES OF THE PROCEEDING

In the *Report and Order* in GN Docket No. 12-268 (“*Commencing Operations R&O*”),<sup>1</sup> the Commission addressed outstanding issues related to the forthcoming broadcast television spectrum incentive auction. As explained in the initial *Report and Order* in GN Docket No. 12-268 (“*Incentive Auction R&O*”)<sup>2</sup> and subsequent Public Notices on auction procedures,<sup>3</sup> full power and Class A television broadcasters will have a unique financial opportunity in the “reverse auction” phase to return some or all of their broadcast spectrum usage rights in exchange for incentive payments. A broadcaster’s decision to participate in the reverse auction will be wholly voluntary. By facilitating this voluntary return of spectrum usage rights and reorganizing the broadcast television bands, the Commission can recover a portion of ultra-high frequency (“UHF”) spectrum in the 600 MHz band currently used for television broadcasting for a “forward auction” of new, flexible-use licenses suitable for providing mobile broadband services. The Commission has conducted numerous workshops and other direct outreach efforts and developed the *Learn Everything About Reverse Auctions Now* (“LEARN”) program to provide useful information and resources.<sup>4</sup>

*Defining When and In What Areas 600 MHz Band Wireless Licensees Will Be Deemed To Commence Operations.* In the *Incentive Auction R&O*, the Commission adopted transition rules that permit low power television and TV translator (“LPTV”) stations, fixed broadcast auxiliary service operations (“BAS”), and unlicensed white space devices (hereinafter, collectively, “secondary and unlicensed users”) to continue operating in the 600 MHz Band after the spectrum has been licensed for wireless services. Those secondary and unlicensed users must vacate once the wireless licensee “commences operations” in its licensed 600 MHz spectrum, or on a date certain.<sup>5</sup> Thereafter, the Commission issued the *Commencing Operations PN* and sought comment on the appropriate definition of “commence operations” in light of the Commission’s objective to accomplish an orderly transition of unlicensed and secondary users out of the 600

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<sup>1</sup> *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, FCC 15-140 (rel. Oct. 22, 2015), available at [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-15-140A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-140A1.pdf).

<sup>2</sup> *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6567 (2014), available at [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-14-50A1\\_Rcd.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-14-50A1_Rcd.pdf) (“*Incentive Auction R&O*”). A Small Entity Compliance Guide for the *Incentive Auction R&O* is available at <http://www.fcc.gov/document/incentive-auctions>.

<sup>3</sup> *Broadcast Incentive Auction Scheduled to Begin March 29, 2016; Procedures for Competitive Bidding in Auction 1000, Including Initial Clearing Target Determination, Qualifying to Bid, and Bidding in Auctions 1001 (Reverse) and 1002 (Forward)*, AU Docket No. 14-252, GN Docket No. 12-268, WT Docket No. 12-269, MB Docket No. 15-146, Public Notice, 30 FCC Rcd 8975 (2015) (“*Bidding Procedures PN*”), available at [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-15-78A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-78A1.pdf); *Application Procedures for Broadcast Incentive Auction Scheduled to Begin on March 29, 2016; Technical Formulas for Competitive Bidding*, AU Docket No. 14-252, GN Docket No. 12-268, WT Docket No. 12-269, Public Notice, DA 15-1183 (rel. Oct. 15, 2015), available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2015/db1015/DA-15-1183A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2015/db1015/DA-15-1183A1.pdf).

<sup>4</sup> Information about the LEARN program is available at: <http://wireless.fcc.gov/incentiveauctions/learn-program/>.

<sup>5</sup> The *Commencing Operations R&O* only addresses the requirements relating to secondary and unlicensed users vacating the 600 MHz Band where 600 MHz Band wireless licensees commence operations. Secondary and unlicensed users also may be required to vacate portions of the 600 MHz Band to the extent the auction system assigns a television station to a channel in the 600 MHz Band.

MHz Band. In *Commencing Operations R&O*, the Commission defines when and in what areas 600 MHz Band wireless licensees will be deemed to “commence operations” for the purpose of establishing when those secondary and unlicensed operators must cease operations and vacate the 600 MHz Band.

Specifically, the Commission defines “commence operations” as when a 600 MHz Band wireless licensee begins pre-launch site activation and commissioning tests using permanent base station equipment, antennas and/or tower locations as part of its site and system optimization in the area of its planned commercial service infrastructure deployment. It is at this juncture that a wireless licensee moves from construction to testing its system, and needs unfettered access to its licensed spectrum to optimize its network in advance of launching commercial service to customers. In addition, a 600 MHz Band wireless licensee’s notification of commencement will cover the area served by its commercial service infrastructure deployment. A limited exception to these rules permits 600 MHz Band wireless licensees to conduct first field application testing in advance of site commissioning testing using their licensed frequencies in limited areas.

## **II. REGULATIONS AND POLICIES THAT THE COMMISSION ADOPTED OR MODIFIED, INCLUDING RECORDKEEPING AND OTHER COMPLIANCE REQUIREMENTS**

### **A. Defining the Timing and Area of Commencing Operations in the Repurposed 600 MHz Band**

Wireless providers may acquire 600 MHz Band spectrum previously reserved for and licensed to broadcast television stations through the upcoming broadcast television spectrum incentive auction. The Commission adopted transition rules that permit LPTV stations, BAS operations, and white space devices to continue operating in the 600 MHz Band after the spectrum has been licensed for wireless services. These secondary users must vacate the 600 MHz Band when and where a wireless licensee “commences operations.” A 600 MHz Band licensee is deemed to commence operations when it begins pre-launch site activation and commissioning tests using permanent base station equipment, antennas and/or tower locations as part of its site and system optimization in the area of its planned commercial service infrastructure deployment. 47 C.F.R §27.4. Pre-launch site activation and commissioning tests ensure that a base station performs as expected, requiring analysis of multiple factors, including signal generation, power measurement, frequency error, unwanted emissions, occupied bandwidth, adjacent-channel leakage, and spurious emissions. These site commissioning tests are the start of an extensive testing process that prepares the network for operation that can also include drive tests of individual sites, cluster optimization tests, and drive tests among multiple clusters.

A wireless licensee’s notification of commencement of operations covers the area served by its planned commercial service infrastructure deployment. The wireless licensee’s commercial service deployment area is determined by the specific locations of the base stations it will construct to provide contiguous coverage to its customers in the area; the outermost base station sites form the boundary of the area. Each site included within this boundary must be capable of handing over mobile traffic to at least one other site within the boundary on the same licensed frequency. These rules will allow wireless licensees to plan for, and roll out service to, large or small areas of deployment, as they see fit, based on their business plans and needs. Until

the wireless licensee commences operations in areas of their geographic licenses where there is a likelihood of receiving harmful interference, secondary and unlicensed users retain their right to operate in the 600 MHz Band.

Displaced LPTV stations may continue to operate on channels reallocated for the new 600 MHz Band but must terminate operations upon receiving 120 days' advance written notice from a 600 MHz Band wireless licensee that it intends to commence operations and that the LPTV station is likely to cause harmful interference to the 600 MHz Band wireless licensee's operations in that area. 47 C.F.R. § 73.3700(g)(4)(ii)(C). The notice from the 600 MHz licensee to the LPTV station must take the form of a letter, by certified mail, return receipt requested. 47 C.F.R. § 73.3700(g)(4)(ii)(A). After receiving such notification, the LPTV station must cease operations or reduce power in order to eliminate the potential for harmful interference to the operations of the 600 MHz licensee prior to the commencement date set forth in the licensee's notification. 47 C.F.R. § 73.3700(g)(4)(iv). LPTV stations operating on channels that include frequencies repurposed for 600 MHz Band guard band use (including the duplex gap) must cease operations on those frequencies no later than the end of the Post-Auction Transition Period (i.e., 39 months after the public release of the *Channel Reassignment PN*<sup>6</sup>), or they must cease operations prior to that date if any 600 MHz Band wireless licensee notifies them that their operations would be likely to cause harmful interference in an area where the wireless licensee intends to commence operations. 47 C.F.R. § 73.3700(g)(4)(v).

BAS licensees must vacate the 600 MHz Band frequencies licensed to wireless providers by the end of the Post-Auction Transition Period. 47 C.F.R. § 74.602(h)(5). Prior to the end of the Post-Auction Transition Period, BAS licensees must vacate the 600 MHz frequencies licensed to wireless providers if notified by a wireless licensee 30 days in advance of the commencement of its operations that the BAS licensee is likely to cause harmful interference. 47 C.F.R. § 74.602(h)(5)(ii)(A)(1)-(2). The 600 MHz Band wireless licensee must provide at least 30 days' advance notice to a BAS operator in the form of a letter, by certified mail, return receipt requested. 47 C.F.R. § 74.602(h)(5)(ii)(A)(1)-(2). The BAS operator must cease the subject operations within 30 days of receiving notification from the wireless licensee. 47 C.F.R. § 74.602(h)(5)(ii)(B).

White space devices may continue to operate in the 600 MHz Band except in those areas in which a 600 MHz Band wireless licensee commences operations and provides the requisite notice to a white space database administrator. 47 C.F.R. § 15.707(a)(5). The 600 MHz Band wireless licensee can notify any of the white space database administrators when and where it plans to commence operations, and the white space databases would be updated to preclude unlicensed white space device operations when the licensee commences operations in those areas. 47 C.F.R. § 27.1320.

## **B. First Field Application Testing**

The Commission provides a limited exception to the rule defining commencement of operations, to permit 600 MHz Band licensees to conduct first field application ("FFA") testing on their licensed frequencies prior to site activation and commissioning testing. Such testing will

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<sup>6</sup> The "Post-Auction Transition Period" consists of a 39-month period following the issuance of the *Channel Reassignment PN* that will announce the results of the auction and repacking process. See *Incentive Auction R&O*, 29 FCC Rcd at 6782, 6796, paras. 525, 559-60; 47 C.F.R. § 27.4.

speed deployment of the 600 MHz Band and accelerate the use of these frequencies by 600 MHz wireless licensees to provide service to consumers. CTIA – The Wireless Association describes such testing as the deployment of “prototype equipment in a limited number of markets to determine if the equipment actually performs as expected in the real-world (as compared to laboratory performance) and if the propagation models and software that have been developed accurately model the capabilities of the new radiofrequency equipment.” AT&T states FFA testing for a new spectrum band “consists of three main areas of evaluation – network hardware, software, and devices [and] . . . incorporates as many different combinations of morphologies (rural, suburban and urban) and network configurations as practicable, to emulate the actual environments found in the network.” Further, CTIA states such testing usually involves “two to six test areas, comprising from as little as 10 sites to 200-300 sites,” covering generally no more than 1,000 square miles.

The Commission expects that FFA testing pursuant to this exception would be done in a small number of areas, with the parameters presented as typical by CTIA constituting the upper bound on what would be considered reasonable. The Commission found that in most cases, FFA testing should require fewer test areas, fewer sites, and cover more restricted geographic areas. Further, FFA testing is expected to be done only in license areas where 600 MHz Band wireless licensees expect to rapidly deploy service to end users, and that this deployment will follow the FFA testing phase as soon as possible. In the areas in which a 600 MHz Band licensee intends to take advantage of this exception, it must notify secondary and unlicensed users of the need to vacate the spectrum by following the transition procedures discussed in this guide. In portions of the license area that do not contain sites involved in the licensee’s FFA testing, secondary and unlicensed users will be allowed to continue operating until the close of the transition period or when the licensee notifies them of its intent to commence operations, as discussed above.

### **C. Recordkeeping and Other Compliance Requirements**

In the *Commencing Operations R&O*, the Commission is not requiring any additional reporting, recordkeeping, or other compliance requirements for small entities other than those requirements that were already required by the *Incentive Auction R&O*.<sup>7</sup>

## **III. INTERNET LINKS**

*Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, FCC 15-140 (rel. Oct. 22, 2015) (“*Commence Operations R&O*”)

Word: [FCC-15-140A1.docx](#)

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Text: [FCC-15-140A1.txt](#)

*Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6567 (2014) (“*Incentive Auction R&O*”)

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<sup>7</sup> *Incentive Auction R&O*, 29 FCC Rcd at 6959-64, Appendix B, paras. 37-54.

A Small Entity Compliance Guide for the *Incentive Auction R&O* is available at <http://www.fcc.gov/document/incentive-auctions>.