PUBLIC NOTICE

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

INCENTIVE AUCTION OF UPPER MICROWAVE FLEXIBLE USE SERVICE LICENSES IN THE UPPER 37 GHZ, 39 GHZ, AND 47 GHZ BANDS FOR NEXT-GENERATION WIRELESS SERVICES

NOTICE AND FILING REQUIREMENTS, MINIMUM OPENING BIDS, UPFRONT PAYMENTS, AND OTHER PROCEDURES FOR AUCTION 103

BIDDING IN AUCTION 103 SCHEDULED TO BEGIN DECEMBER 10, 2019

AU Docket No. 19-59
GN Docket No. 14-177

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I. GENERAL INFORMATION

A. Introduction

1. By this Public Notice, we establish the procedures to be used for Auction 103, the incentive auction of Upper Microwave Flexible Use Service (UMFUS) licenses in the Upper 37 GHz (37.6–38.6 GHz), 39 GHz (38.6–40 GHz), and 47 GHz (47.2–48.2 GHz) bands. Auction 103 is the Commission’s third and largest auction of high-band spectrum that is intended to further the deployment of fifth-generation (5G) wireless, the Internet of Things (IoT), and other advanced spectrum-based services.

2. The bidding for new licenses in Auction 103 is scheduled to commence on December 10, 2019. This Public Notice provides details regarding the procedures, terms, conditions, dates, and deadlines governing participation in Auction 103 bidding, as well as an overview of the post-auction application and payment processes. Although 39 GHz incumbents that accept modified licenses will not be eligible to bid on new licenses in Auction 103, certain procedures adopted herein will affect how those modified licenses will be assigned to specific frequencies.

B. Background and Relevant Authority

3. In the 2016 Spectrum Frontiers Order, the Commission made millimeter wave (mmW) spectrum available through both licensed and unlicensed mechanisms. Among other things, the Commission established licensing and operating rules for the UMFUS and decided to use its competitive bidding rules to auction UMFUS licenses. In the Spectrum Frontiers Fourth R&O, the Commission adopted an incentive auction for the Upper 37 GHz, 39 GHz, and 47 GHz bands that would help enable

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3 Id. at 8023-43, 8073-101, paras. 19-72, 159-254.
both incumbent 39 GHz licensees and new licensees to provide valuable next-generation services throughout these bands.\textsuperscript{4} On April 15, 2019, in accordance with section 309(j)(3) of the Communications Act of 1934, as amended,\textsuperscript{5} we released a public notice seeking comment on competitive bidding procedures and various other procedures to be used in Auction 103.\textsuperscript{6} We received comments from seven parties in response to the \textit{Auction 103 Comment Public Notice}, and five reply comments.\textsuperscript{7}

4. Other Commission rules and decisions provide the underlying authority for the procedures we adopt today for Auction 103. Among other things, prospective applicants should familiarize themselves with the Commission’s general competitive bidding rules,\textsuperscript{8} including recent amendments and clarifications, as well as Commission decisions in proceedings regarding competitive bidding procedures, application requirements, and obligations of Commission licensees.\textsuperscript{9} Prospective applicants should also familiarize themselves with the Commission’s UMFUS rules and competitive bidding requirements contained in Part 30 of the Commission’s rules,\textsuperscript{10} as well as Commission orders concerning competitive bidding for UMFUS licenses.\textsuperscript{11} Applicants must also be thoroughly familiar with the procedures, terms, and conditions contained in this Public Notice and any future public notices that may be released in this proceeding.

5. The terms contained in the Commission’s rules, relevant orders, and public notices are not negotiable. The Commission may amend or supplement the information contained in its public notices at any time and will issue public notices to convey any new or supplemental information to applicants. In addition, we affirm the well-established authority of the Wireless Telecommunications Bureau (Bureau) and Office of Economics and Analytics (Office) to establish further procedures during the course of this auction.\textsuperscript{12} It is the responsibility of all applicants to remain current with all Commission rules and with all public notices pertaining to Auction 103. Copies of most auctions-related Commission


\textsuperscript{5} 47 U.S.C. § 309(j)(3)(E)(i) (requirement to seek comment on proposed auction procedures); see also id. § 309(j)(4)(F) (authorization to prescribe reserve price or minimum bid); 47 CFR § 1.2104(c)-(d).

\textsuperscript{6} See Incentive Auction of Upper Microwave Flexible Use Service Licenses in the Upper 37 GHz, 39 GHz, and 47 GHz Bands for Next-Generation Wireless Services; Comment Sought on Competitive Bidding Procedures for Auction 103, Public Notice, FCC 19-35 (Apr. 15, 2019) (\textit{Auction 103 Comment Public Notice}). A summary of the \textit{Auction 103 Comment Public Notice} was published in the Federal Register at 84 Fed. Reg. 20077 (May 8, 2019).

\textsuperscript{7} These comments are available under proceeding 19-59 in the Commission’s Electronic Comment Filing System (ECFS). The ECFS home page is publicly accessible at: www.fcc.gov/ecfs/. We generally note in the context of discussing particular issues whether any commenter addressed those issues.

\textsuperscript{8} 47 CFR Part 1, Subpart Q.


\textsuperscript{10} 47 CFR §§ 30.1–30.407.

\textsuperscript{11} See 2016 Spectrum Frontiers Order, 31 FCC Red at 8097-101, paras. 244-54.
documents, including public notices, can be retrieved from the Commission’s FCC Auctions Internet site at www.fcc.gov/auctions. Additionally, documents are available at the Commission’s headquarters, located at 445 12th Street, SW, Washington, DC 20554, during normal business hours.

C. Description of Licenses to Be Offered in Auction 103

6. We affirm that Auction 103 will offer UMFUS licenses for all available spectrum in the Upper 37 GHz (37.6–38.6 GHz), 39 GHz (38.6–40 GHz), and 47 GHz (47.2–48.2 GHz) bands. We will offer 100 megahertz blocks of spectrum licensed by Partial Economic Area (PEA) service area. In combination, the Upper 37 GHz and the 39 GHz bands offer the largest amount of contiguous spectrum in the millimeter wave bands for flexible-use wireless services—a total of 2,400 megahertz—and the 47 GHz band will provide an additional 1,000 megahertz of millimeter wave spectrum for such services. We are limiting Auction 103 to only these bands, as proposed in the Auction 103 Comment Public Notice, because licenses for no other UMFUS spectrum bands are ready and/or suitable to be auctioned at this time.

7. The specific number of Upper 37 GHz and 39 GHz licenses to be auctioned in each PEA will be determined by the Initial Commitments of 39 GHz incumbents as described in the Spectrum Frontiers Fourth R&O, Initial Reconfiguration Procedures Public Notice, Updated Reconfiguration Procedures Public Notice, and Reconfigured Holdings Public Notice. The licenses that will be available in the auction depend, in part, on upcoming decisions made by existing 39 GHz licensees (referred to herein as “incumbents”) to either accept modified licenses, reconfigured to conform with the new band plan and service areas, or to relinquish all their existing spectrum usage rights in exchange for a share of the auction proceeds and the opportunity to bid on new licenses in Auction 103. If all incumbents choose to relinquish their licenses, we will offer new licenses for 3,400 megahertz of spectrum across all three spectrum bands, or 34 licenses in every PEA. Following the deadline for incumbents to submit their binding Initial Commitments, a public notice will announce the specific number of licenses available in each PEA in the Upper 37 GHz and 39 GHz bands for auction. This public notice will be released

(Continued from previous page)

12 See generally 47 CFR §§ 0.21(m), 0.271(a), 0.131(r), 0.331.

13 RWA asserts that we should offer licenses in smaller geographic areas than PEAs, such as counties or census block groups, in order to assist smaller providers that may not be able to serve an entire PEA. See RWA Comments at 1-2. However, the Commission already decided to offer licenses by PEA in the Spectrum Frontiers Fourth R&O, and the period in which RWA could seek reconsideration of that decision has expired. See 2016 Spectrum Frontiers Order, 31 FCC Rcd at 8046-47, 8061, paras. 82, 121; see also Spectrum Frontiers Fourth R&O, 33 FCC Rcd at 12184, para. 52; AT&T Reply at 1 n.3; Hughes Reply at 1; T-Mobile Reply at 9; Verizon Reply at 4.

14 See Auction 103 Comment Public Notice at 2, para. 3.

15 See supra note 1.

16 In the Spectrum Frontiers Fourth R&O, the Commission decided that separate licenses held by entities that control or are controlled by each other and/or have controlling ownership interests in common (“commonly controlled entities”) will be treated as holdings by a single incumbent when reconfiguring existing 39 GHz licenses. See Spectrum Frontiers Fourth R&O, 33 FCC Rcd at 12176, para. 22. In addition, “incumbent” may refer to existing 39 GHz licensee(s), individually or together with other commonly controlled existing 39 GHz licensees, or to another entity that is not an existing 39 GHz licensee, but that is commonly controlled with existing 39 GHz licensees(s) and serves as an FCC Form 175-A applicant for those licensees listed in the FCC Form 175-A. See Reconfigured Holdings Public Notice at 2, para. 4.

17 See Spectrum Frontiers Fourth R&O, 33 FCC Rcd at 12171, para. 17; see also Reconfigured Holdings Public Notice at 3-5, paras. 7-16. Those incumbents that choose to retain their licenses and accept a reconfiguration of their holdings may still choose to relinquish any partial PEA block holding for an incentive payment.


19 See Reconfigured Holdings Public Notice at 6, para. 17.
prior to the deadline for the submission of short-form applications to bid in Auction 103 so that potential applicants can make informed decisions about whether to apply.

8. It is possible that an incumbent that chooses to receive modified licenses will decide to retain its partial PEA holding (resulting in a modified license that will cover less than the full geographic area of a PEA).\textsuperscript{20} The remaining portion of the spectrum block will thus have unassigned spectrum usage rights. As proposed,\textsuperscript{21} we will not make this “white space” available in the auction. As discussed in the \textit{Spectrum Frontiers Fourth R\&O}, the reconfiguration process will attempt to minimize this white space, and leaving the remainder of the spectrum block unassigned will help preserve the structure of the new band plan.\textsuperscript{22} We further expect that the total white space as a result of this process will be extremely low relative to the total 39 GHz band.\textsuperscript{23} At most, only \textit{seven} PEAs could possibly have white space, given incumbents’ holdings and our reconfiguration procedures.\textsuperscript{24} Although GeoLinks and WISPA assert that allowing bidding for this white space will encourage smaller providers to participate in the auction,\textsuperscript{25} we are not convinced that the inclusion of a very few licenses for partial-geography PEAs will make an appreciable difference in the participation decisions of potential bidders. We intend to encourage these providers’ participation in Auction 103 via other means, including by providing bidding credits as described below. At the same time, including white space in the auction would introduce additional complexity to the auction by creating an additional bidding category or categories and complicating the assignment of contiguous blocks of licenses to bidders whose winnings include those blocks.\textsuperscript{26} As a result, any potential benefit from including blocks of white space in the auction is likely outweighed by the cost.

9. Each of the bands available in Auction 103 will be licensed on an unpaired basis in 100 megahertz channel blocks by PEA. A licensee in these bands may provide any services permitted under a fixed or mobile allocation, as set forth in the non-Federal Government column of the Table of Frequency Allocations in section 2.106 of the Commission’s rules.\textsuperscript{27}

D. Auction Specifics

1. Auction Title and Start Date

10. The auction of licenses in the Upper 37 GHz (37.6–38.6 GHz), 39 GHz (38.6–40 GHz), and 47 GHz (47.2–48.2 GHz) bands will be referred to as “Auction 103.” Bidding in Auction 103 will begin on Tuesday, December 10, 2019. Pre-bidding dates and deadlines are listed below. The initial schedule for bidding rounds in Auction 103 will be announced by public notice at least one week before bidding in the auction starts. Moreover, unless otherwise announced, bidding on all licenses will be conducted on each business day until bidding has stopped on all licenses.

\textsuperscript{20} See generally id. at 4, para. 10.

\textsuperscript{21} See \textit{Auction 103 Comment Public Notice} at 3, para. 5. Therefore, we decide this issue herein, contrary to AT&T’s assertion that the Commission previously decided not to include white space in the auction. See AT&T Reply at 1 n.3.

\textsuperscript{22} See \textit{Spectrum Frontiers Fourth R\&O}, 33 FCC Rcd at 12178, para. 28.

\textsuperscript{23} Id.

\textsuperscript{24} See \textit{Updated Reconfiguration Procedures Public Notice} at Attach. B; see also T-Mobile Reply at 8-9 (observing that white spaces will likely be “limited in number”); Verizon Reply at 2.

\textsuperscript{25} See GeoLinks Comments at 2-3; WISPA Comments at 3.

\textsuperscript{26} See T-Mobile Reply at 8; WISPA Comments at 3.

\textsuperscript{27} 47 CFR § 30.6.
2. **Auction Dates and Deadlines**

11. The following dates and deadlines apply to Auction 103:

- Auction Application Tutorial Available (via Internet)......August 2, 2019
- Short-Form Application (FCC Form 175)
  - Filing Window Opens........................................................August 26, 2019; 12:00 p.m. Eastern Time (ET)
- Short-Form Application (FCC Form 175)
  - Filing Window Deadline ...................................................September 9, 2019; 6:00 p.m. ET
- Upfront Payments (via wire transfer) .........................No later than October 22, 2019; 6:00 p.m. ET
- Bidding Tutorial Available (via Internet) .............No later than November 19, 2019
- Mock Auction....................................................................Starting week of December 2, 2019
- Bidding Begins in Auction 103 ..........................December 10, 2019

3. **Requirements for Participation**

12. Those wishing to participate in Auction 103 must:

- Submit a short-form application (FCC Form 175) electronically prior to 6:00 p.m. ET on September 9, 2019, following the electronic filing procedures set forth in the FCC Form 175 Instructions.\(^{28}\)
- Submit a sufficient upfront payment and an FCC Remittance Advice Form (FCC Form 159) by 6:00 p.m. ET on October 22, 2019, following the procedures and instructions set forth in the FCC Form 159 Instructions.
- Comply with all provisions outlined in this Public Notice and applicable Commission rules.

II. **APPLYING TO PARTICIPATE IN AUCTION 103**

A. **General Information Regarding Short-Form Applications**

13. An application to participate in Auction 103, referred to as a short-form application or FCC Form 175, provides information that the Commission uses to determine whether the applicant has the legal, technical, and financial qualifications to participate in a Commission auction for spectrum licenses.\(^{29}\) The short-form application is the first part of the Commission’s two-phased auction application process. In the first phase, a party seeking to participate in Auction 103 must file a short-form application in which it certifies, under penalty of perjury, its qualifications.\(^{30}\) Eligibility to participate in Auction 103 is based on an applicant’s short-form application and certifications, and on the applicant’s submission of a sufficient upfront payment for the auction.\(^{31}\) In the second phase of the process, each winning bidder must file a more comprehensive post-auction, long-form application (FCC Form 601) for

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\(^{28}\) We direct the Office, in conjunction with the Bureau, to prepare and release, concurrent with this Public Notice, detailed instructions for submitting an FCC Form 175 for Auction 103 (FCC Form 175 Instructions).

\(^{29}\) See 47 CFR § 1.2105; see also Implementation of Section 309(j) of the Communications Act—Competitive Bidding, Second Report and Order, 9 FCC Rcd 2348, 2376-77, para. 166 (Competitive Bidding Second Report and Order).

\(^{30}\) Competitive Bidding Second Report and Order, 9 FCC Rcd at 2376, para. 165.

\(^{31}\) See infra Section III.F.3 (Upfront Payments and Bidding Eligibility).
the licenses it wins in the auction, and it must have a complete and accurate ownership disclosure
information report (FCC Form 602) on file with the Commission.\textsuperscript{32}

14. A party seeking to participate in Auction 103 must file an FCC Form 175 electronically
via the Auction Application System prior to 6:00 p.m. ET on September 9, 2019, following the
procedures prescribed in the FCC Form 175 Instructions. If an applicant claims eligibility for a bidding
credit, the information provided in its FCC Form 175 as of the filing date will be used to determine
whether the applicant may request the claimed bidding credit. Below we describe more fully the
information disclosures and certifications required in the short-form application. An applicant that files
an FCC Form 175 for Auction 103 will be subject to the Commission’s rule prohibiting certain
communications.\textsuperscript{33} An applicant is subject to the prohibition beginning at the deadline for filing short-
form applications—6:00 p.m. ET on September 9, 2019.\textsuperscript{34}

15. An applicant bears full responsibility for submitting an accurate, complete, and timely
short-form application. Each applicant must make a series of certifications under penalty of perjury on its
FCC Form 175 related to the information provided in its application and its participation in the auction,
and it must confirm that it is legally, technically, financially, and otherwise qualified to hold a license.\textsuperscript{35}
If an Auction 103 applicant fails to make the required certifications in its FCC Form 175 by the filing
deadline, its application will be deemed unacceptable for filing and cannot be corrected after the filing
deadline.\textsuperscript{36}

16. An applicant should note that submitting an FCC Form 175 (and any amendments
thereof) constitutes a representation by the certifying official that he or she is an authorized representative
of the applicant with authority to bind the applicant, that he or she has read the form’s instructions and
certifications, and that the contents of the application, its certifications, and any attachments are true and
correct.\textsuperscript{37} Submitting a false certification to the Commission may result in penalties, including monetary
forfeitures, license forfeitures, ineligibility to participate in future auctions, and/or criminal prosecution.

17. Applicants are cautioned that because the required information submitted in FCC Form
175 bears on each applicant’s qualifications, requests for confidential treatment will not be routinely
granted. The Commission has held generally that it may publicly release confidential business
information where the party has put that information at issue in a Commission proceeding or where the
Commission has identified a compelling public interest in disclosing the information.\textsuperscript{38} In this regard, the
Commission has specifically held that information submitted in support of receiving bidding credits in
auction proceedings should be made available to the public.\textsuperscript{39}

\textsuperscript{32} 47 CFR § 1.2107. We remind applicants that being deemed qualified to bid in Auction 103 does not constitute a
determination that a party is qualified to hold a Commission license or is eligible for a designated entity bidding
credit.

\textsuperscript{33} Id. § 1.2105(c).

\textsuperscript{34} As discussed below, the prohibition will end for applicants on the post-auction down payment deadline for
Auction 103. See infra Section II.G.2 (Prohibition Applies Until Down Payment Deadline).

\textsuperscript{35} 47 CFR § 1.2105(a)(2).

\textsuperscript{36} See id. § 1.2105(b)(1).

\textsuperscript{37} As more fully explained below in Section II.K (Modifications to FCC Form 175), applicants are not permitted to
make major modifications to their FCC Form 175 applications after the filing deadline. See 47 CFR § 1.2105(b)(2).
A change in the required certifications is considered a major change and would therefore not be permitted.

\textsuperscript{38} See Examination of Current Policy Concerning Treatment of Confidential Information Submitted to the

\textsuperscript{39} See, e.g., SAL Spectrum, LLC – Request for Confidential Treatment of Subscriber Information Provided in FCC
Form 175, Letter Order, 31 FCC Rcd 3726 (WTB 2016) (denying a request for confidentiality of the number of
(continued….)
18. The same party may not bid based on more than one auction application, i.e., as more than one applicant.\textsuperscript{40} If a party submits multiple short-form applications for an auction, only one application may be the basis for that party to become qualified to bid in that auction.\textsuperscript{41}

19. Similarly, and consistent with the Commission’s general prohibition of joint bidding agreements, a party is generally permitted to participate in a Commission auction only through a single bidding entity.\textsuperscript{42} Accordingly, the filing of applications in Auction 103 by multiple entities controlled by the same individual or set of individuals will generally not be permitted.\textsuperscript{43} As noted by the Commission in adopting the prohibition of applications by commonly controlled entities, this rule, in conjunction with the prohibition against joint bidding agreements, protects the competitiveness of our auctions.\textsuperscript{44}

20. A party that is a 39 GHz incumbent is eligible to submit FCC Form 175 to participate in Auction 103 only if the party submitted an Initial Commitment to relinquish its spectrum usage rights under all its 39 GHz licenses in exchange for an incentive payment.\textsuperscript{45} If an incumbent submits such an Initial Commitment and wishes to offset any payments for new licenses with incentive payments, the same entity, using the same FCC Registration Number (FRN), that filed FCC Form 175-A must also file FCC Form 175.\textsuperscript{46} In all other cases, regardless of any relationship between an FCC Form 175 applicant and an FCC Form 175-A applicant, a winning bidder will be obligated to pay its gross winning bids, i.e., without reduction by any incentive payment.\textsuperscript{47}

21. After the initial short-form application filing deadline, Commission staff will review all timely submitted applications for Auction 103 to determine whether each application complies with the application requirements and whether it has provided all required information concerning the applicant’s qualifications for bidding. After this review is completed, a public notice will be released announcing the status of applications and identifying the applications that are complete and those that are incomplete because of minor defects that may be corrected. This public notice also will establish an application resubmission filing window, during which an applicant may make permissible minor modifications to its

(Continued from previous page) wireless, wireline, broadband, and cable subscribers submitted by an applicant for only those affiliates operating in the United States).

\textsuperscript{40} See 47 CFR § 1.2105(a)(3); see also 2015 Part 1 Report and Order, 30 FCC Rcd at 7579, para. 205.

\textsuperscript{41} See 47 CFR § 1.2105(a)(3), (b)(1)(ii).

\textsuperscript{42} See 2015 Part 1 Report and Order, 30 FCC Rcd at 7580-81, paras. 206-08.

\textsuperscript{43} See 47 CFR § 1.2105(a)(3), (a)(4)(i), (b)(1)(ii); 2015 Part 1 Report and Order, 30 FCC Rcd at 7580-81, paras. 206-08. This restriction applies across all applications, without regard to the geographic areas selected. See 2015 Part 1 Report and Order, 30 FCC Rcd at 7580, para. 206. The Commission adopted a limited exception to the general prohibition of the filing of multiple applications by commonly-controlled entities for qualified rural wireless partnerships and individual members of such partnerships. See 47 CFR § 1.2105(a)(3). Under this limited exception, each qualifying rural wireless partnership and its individual members will be permitted to participate separately in an auction. See id.; see also 2015 Part 1 Report and Order, 30 FCC Rcd at 7582, para. 210.

\textsuperscript{44} See 2015 Part 1 Report and Order, 30 FCC Rcd at 7580, para. 206.

\textsuperscript{45} See Spectrum Frontiers Fourth R&O, 33 FCC Rcd at 12180, para. 38; Reconfigured Holdings Public Notice at 3, 5, paras. 8, 15 (referring to this Initial Commitment as Option 3). An incumbent that submits an FCC Form 175, but did not submit an Initial Commitment to relinquish all its 39 GHz spectrum usage rights will not be found qualified to bid. Likewise, a party that is commonly controlled with an incumbent will not be found qualified to bid if the incumbent did not submit an Initial Commitment to relinquish all its 39 GHz spectrum usage rights. See Updated Reconfiguration Procedures Public Notice at 5, para. 8 n.17.

\textsuperscript{46} See Updated Reconfiguration Procedures Public Notice at 13, para. 33.

\textsuperscript{47} Id.
application to address identified deficiencies.\textsuperscript{48} The public notice will include the deadline for resubmitting modified applications. To become a qualified bidder, an applicant must have a complete application (i.e., have timely corrected any identified deficiencies) and make a timely and sufficient upfront payment. Qualified bidders will be identified by public notice at least 10 days prior to the mock auction.

22. Below we discuss additional details regarding certain information required to be submitted in the FCC Form 175. An applicant should consult the Commission’s rules to ensure that, in addition to the materials described below, all required information is included in its short-form application. To the extent the information in this Public Notice does not address a potential applicant’s specific operating structure, or if the applicant needs additional information or guidance concerning the following disclosure requirements, the applicant should review the educational materials for Auction 103 and/or use the contact information provided in this Public Notice to consult with Commission staff to better understand the information it must submit in its short-form application.

B. License Area Selection

23. An applicant must select all the license areas on which it may want to bid from the list of available PEAs on its FCC Form 175.\textsuperscript{49} An applicant must carefully review and verify its PEA selections before the FCC Form 175 filing deadline because those selections cannot be changed after the auction application filing deadline.\textsuperscript{50} The FCC Auction Bidding System (bidding system) will not accept bids for blocks in PEAs that were not selected on the applicant’s FCC Form 175.

C. Disclosure of Agreements and Bidding Arrangements

24. An applicant must provide in its FCC Form 175 a brief description of, and identify each party to, any partnerships, joint ventures, consortia or agreements, arrangements, or understandings of any kind relating to the licenses being auctioned, including any agreements that address or communicate directly or indirectly bids (including specific prices), bidding strategies (including the specific licenses on which to bid or not to bid), or the post-auction market structure, to which the applicant, or any party that controls or is controlled by the applicant, is a party.\textsuperscript{51} In connection with the agreement disclosure requirement, the applicant must certify under penalty of perjury in its FCC Form 175 that it has described, and identified each party to, any such agreements, arrangements, or understandings into which it has entered.\textsuperscript{52} An auction applicant that enters into any agreement relating to the licenses being auctioned during an auction is subject to the same disclosure obligations it would be for agreements existing at the FCC Form 175 filing deadline, and it must maintain the accuracy and completeness of the information in its pending auction application.\textsuperscript{53}

\textsuperscript{48} 47 CFR § 1.2105(b)(2).

\textsuperscript{49} Under our adopted clock auction design for Auction 103, an applicant will select on its auction application all the PEAs on which it may want to bid from the list of available PEAs.

\textsuperscript{50} 47 CFR § 1.2105(b)(2).

\textsuperscript{51} \textit{id.} § 1.2105(a)(2)(viii), (a)(4). As defined for purposes of this rule, a controlling interest includes all individuals or entities with positive or negative de jure or de facto control of the licensee. \textit{See id.} § 1.2105(a)(4)(i). This definition is modeled on a similar term used in section 1.2110(c) (definitions for designated entities), though it differs in some respects from that rule. \textit{Compare id.} § 1.2105(a)(4)(i) \textit{with id.} § 1.2110(c).

\textsuperscript{52} \textit{id.} § 1.2105(a)(2)(viii). As discussed below, an applicant may continue negotiating, discussing, or communicating with respect to a new agreement after the FCC Form 175 filing deadline, provided that the communications involved do not relate both to the licenses being auctioned and to bids or bidding strategies or post-auction market structure. \textit{See infra} Section II.G.3 (Scope of Prohibition of Communications; Prohibition of Joint Bidding Agreements).

\textsuperscript{53} \textit{See Guidance Regarding the Prohibition of Certain Communications During the Incentive Auction, Auction 1000, (continued….)}
25. For purposes of making the required agreement disclosures on the FCC Form 175, if parties agree in principle on all material terms prior to the application filing deadline, each party to the agreement that is submitting an auction application must provide a brief description of, and identify the other party or parties to, the agreement on its respective FCC Form 175, even if the agreement has not been reduced to writing. However, if the parties have not agreed in principle by the FCC Form 175 filing deadline, they should not describe, or include the names of parties to, the discussions on their applications.

26. The Commission’s rules generally prohibit joint bidding and other arrangements involving auction applicants (including any party that controls or is controlled by such applicants). For purposes of the prohibition of joint bidding arrangements, “joint bidding arrangements” include arrangements relating to the licenses being auctioned that address or communicate, directly or indirectly, bidding at the auction, bidding strategies, including arrangements regarding price or the specific licenses on which to bid, and any such arrangements relating to the post-auction market structure.

27. This prohibition applies to joint bidding arrangements involving two or more nationwide providers, as well as joint bidding arrangements involving a nationwide provider and one or more non-nationwide providers, where any party to the arrangement is an applicant for the auction. As discussed in the Auction 103 Comment Public Notice, we consider AT&T, Sprint, T-Mobile, and Verizon Wireless to be “nationwide providers” for the purpose of implementing our competitive bidding rules in Auction 103. In addition, the prohibition applies to joint bidding arrangements between an applicant and an incumbent that files an FCC Form 175-A (or any party that controls or is controlled by it) as part of the process for it to make an Initial Commitment.

28. Non-nationwide providers may enter into agreements to form a consortium or a joint venture (as applicable) that result in a single party applying to participate in an auction. Specifically, a

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54 47 CFR § 1.2105(a)(2)(viii), (c)(1).


56 See 47 CFR § 1.2105(a)(2)(ix); see also 2015 Part 1 Report and Order, 30 FCC Rcd at 7569-77, paras. 177-98.


58 A “non-nationwide provider” refers to any provider of communications services that is not a “nationwide provider.” See id.


60 Auction 103 Comment Public Notice at 4, paras. 9-10; see also Updated Reconfiguration Procedures Public Notice at 14, para. 36.

61 See Auction 103 Comment Public Notice at 4-5, para. 10.

62 See 2015 Part 1 Report and Order, 30 FCC Rcd at 7573-74, 7576, paras. 187, 190, 198. While two or more non-
designated entity (DE) can participate in only one consortium or joint venture in an auction, which shall be the exclusive bidding vehicle for its members in that auction, and non-nationwide providers that are not designated entities may participate in an auction through only one joint venture, which also shall be the exclusive bidding vehicle for its members in that auction. The general prohibition of joint bidding arrangements excludes certain agreements, including those that are solely operational in nature, as defined in section 1.2105(a)(2)(ix)(A)-(C) of the Commission’s rules.

29. To implement the prohibition of joint bidding arrangements, the Commission’s rules require each applicant to certify in its short-form application that it has disclosed any arrangements or understandings of any kind relating to the licenses being auctioned to which it (or any party that controls or is controlled by it) is a party. The applicant must also certify that it (or any party that controls or is controlled by it) has not entered and will not enter into any arrangement or understanding of any kind relating directly or indirectly to bidding at auction with, among others, “any other applicant” or a nationwide provider.

30. Although the Commission’s rules do not prohibit auction applicants from communicating about matters that are within the scope of an excepted agreement that has been disclosed in an FCC Form 175, the Commission reminds applicants that certain discussions or exchanges could nonetheless touch upon impermissible subject matters, and that compliance with the Commission’s rules will not insulate a party from enforcement of the antitrust laws.

31. Applicants should bear in mind that a winning bidder will be required to disclose in its FCC Form 601 post-auction application the specific terms, conditions, and parties involved in any agreement relating to the licenses being auctioned into which it had entered prior to the time bidding was completed. This applies to any bidding consortium, joint venture, partnership, or other agreement.

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arrangement, or understanding of any kind entered into relating to the competitive bidding process, including any agreements relating to the licenses being auctioned that address or communicate directly or indirectly bids (including specific prices), bidding strategies (including the specific licenses on which to bid or not to bid), or the post-auction market structure, to which the applicant, or any party that controls or is controlled by the applicant, is a party.\textsuperscript{72}

D. Ownership Disclosure Requirements

32. Each applicant must comply with the applicable Part 1 ownership disclosure requirements and provide information required by sections 1.2105 and 1.2112, and, where applicable, section 1.2110, of the Commission’s rules.\textsuperscript{73} Specifically, in completing FCC Form 175, an applicant must fully disclose information regarding the real party- or parties-in-interest in the applicant or application and the ownership structure of the applicant, including both direct and indirect ownership interests of 10% or more, as prescribed in sections 1.2105 and 1.2112, and, where applicable, section 1.2110, of the Commission’s rules.\textsuperscript{74} Each applicant is responsible for ensuring that information submitted in its short-form application is complete and accurate.

33. In certain circumstances, an applicant may have previously filed an FCC Form 602 ownership disclosure information report or filed an auction application for a previous auction in which ownership information was disclosed. The most current ownership information contained in any FCC Form 602 or previous auction application on file with the Commission that used the same FRN the applicant is using to submit its FCC Form 175 will automatically be pre-filled into certain ownership sections on the applicant’s FCC Form 175,\textsuperscript{75} if such information is in an electronic format compatible with FCC Form 175.\textsuperscript{76} Each applicant must carefully review any ownership information automatically entered into its FCC Form 175, including any ownership attachments, to confirm that all information (Continued from previous page)

(ix) Certification that the applicant (or any party that controls as defined in paragraph (a)(4) of this Section or is controlled by the applicant) has not entered and will not enter into any partnerships, joint ventures, consortia or other agreements, arrangements, or understandings of any kind relating to the licenses being auctioned that address or communicate, directly or indirectly, bidding at auction (including specific prices to be bid) or bidding strategies (including the specific licenses on which to bid or not to bid), or post-auction market structure with: any other applicant (or any party that controls or is controlled by another applicant); with a nationwide provider that is not an applicant (or any party that controls or is controlled by such a nationwide provider); or, if the applicant is a nationwide provider, with any non-nationwide provider that is not an applicant (or with any party that controls or is controlled by such a non-nationwide provider), other than:

(A) Agreements, arrangements, or understandings of any kind that are solely operational as defined under paragraph (a)(4) of this Section;

(B) Agreements, arrangements, or understandings of any kind to form consortia or joint ventures as defined under paragraph (a)(4) of this Section;

(C) Agreements, arrangements or understandings of any kind with respect to the transfer or assignment of licenses, provided that such agreements, arrangements or understandings do not both relate to the licenses at auction and address or communicate, directly or indirectly, bidding at auction (including specific prices to be bid), or bidding strategies (including the specific licenses on which to bid or not to bid), or post-auction market structure.”

47 CFR § 1.2105(a)(2)(viii)-(ix); see also 2015 Part I Report and Order, 30 FCC Rcd at 7570-78, paras. 180-201.

\textsuperscript{68} 47 CFR § 1.2105(a)(2)(viii), (a)(2)(ix)(A)-(C), (a)(2)(viii), (c)(1).


\textsuperscript{70} 47 CFR § 1.2105(a)(2)(ix)(A)-(C), (a)(2)(viii); see also Part I Report and Order, 30 FCC Rcd at 7571, para. 181; Prohibited Communications Guidance Public Notice, 30 FCC Rcd at 10809, para. 43.
supplied on FCC Form 175 is complete and accurate as of the application filing deadline. Any
information that needs to be corrected or updated must be changed directly in FCC Form 175.

E. Foreign Ownership Disclosure Requirements

34. Section 310 of the Communications Act requires the Commission to review foreign
investment in radio station licenses and imposes specific restrictions on who may hold certain types of
radio licenses. Section 310 applies to applications for initial radio licenses, applications for assignments
and transfers of control of radio licenses, and spectrum leasing arrangements under the Commission’s
secondary market rules. In completing FCC Form 175, an applicant is required to disclose information
concerning foreign ownership of the applicant. If an applicant has foreign ownership interests in excess
of the applicable limit or benchmark set forth in section 310(b), it may seek to participate in Auction 103
as long as it has filed a petition for declaratory ruling with the Commission prior to the FCC Form 175
filing deadline. An applicant must certify in its FCC Form 175 that, as of the deadline for filing its
application to participate in the auction, the applicant either is in compliance with the foreign ownership
provisions of section 310 or has filed a petition for declaratory ruling requesting Commission approval to
exceed the applicable foreign ownership limit or benchmark in section 310(b) that is pending before, or
has been granted by, the Commission.

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71 47 CFR § 1.2107(d); see also id. § 1.2105(a)(2)(ix)(A)-(C), (a)(2)(viii).

72 Id. § 1.2107(d); see also id. § 1.2105(a)(2)(ix)(A)-(C), (a)(2)(viii).

73 Section 1.2105 requires the disclosure on the FCC Form 175 of the applicant’s ownership information as set forth
in sections 1.2105 and 1.2112. See id. § 1.2105. In addition, each applicant should ensure that its disclosures
comply with the ownership disclosure requirements in the Part 1 rules. See generally 2015 Part 1 Report and
Order, 30 FCC Rcd 7493.

74 47 CFR §§ 1.2105, 1.2112.

75 The FCC Form 175 instructions provide additional details on pre-filled information.

76 Applicants are encouraged to submit an FCC Form 602 ownership report or update any ownership information on
file with the Commission in an FCC Form 602 ownership report prior to starting an application for Auction 103 to
ensure that their most recent ownership information is pre-filled into their short-form applications.

77 See 47 U.S.C. § 310(a), (b).

78 See Review of Foreign Ownership Policies for Common Carrier and Aeronautical Radio Licensees under Section
310(b)(4) of the Communications Act of 1934, as Amended, Second Report and ORDER, 28 FCC Rcd 5741, 5747-48,
para. 7 (2013). The Commission amended its foreign ownership rules in Review of Foreign Ownership Policies for
Broadcast, Common Carrier and Aeronautical Radio Licensees under Section 310(b)(4) of the Communications Act
of 1934, as Amended, Report and Order, 31 FCC Rcd 11272 (2016). The rules are now codified in 47 CFR §§
1.5000-1.5004.

79 See 47 CFR § 1.2105(a)(2)(v), (vi). Additional information concerning foreign ownership disclosure
requirements is provided in the FCC Form 175 Filing Instructions.
F. Information Procedures During the Auction Process

35. Consistent with past practice in several prior spectrum license auctions, we adopt our proposal to limit information available in Auction 103 in order to prevent the identification of bidders placing particular bids until after the bidding has closed. More specifically, we will not make public until bidding has closed: (1) the license areas that an applicant selects for bidding in its short-form application, (2) the amount of any upfront payment made by or on behalf of an applicant, (3) any applicant’s bidding eligibility, and (4) any other bidding-related information that might reveal the identity of the bidder placing a bid.

36. The limited information disclosure procedures used in past auctions have helped safeguard against potential anticompetitive behavior such as retaliatory bidding and collusion. We find nothing in the record even suggesting that we depart from our now-established practice of implementing these procedures in wireless spectrum auctions. We find that the competitive benefits associated with limiting information disclosure support adoption of such procedures and outweigh the potential benefits of full disclosure.

37. Once the bidding in Auction 103 starts, under the limited information procedures (sometimes also referred to as anonymous bidding), information to be made public after each round of bidding will include for each category of license in each geographic area, the supply, the aggregate demand, the price at the end of the last completed round, and the price for the next round. The identities of bidders placing specific bids and the net bid amounts (reflecting bidding credits or incentive payments) will not be disclosed until after the close of bidding.

38. Throughout the auction, bidders will have access to additional information related to their own bidding and bid eligibility through the Commission’s bidding system. For example, bidders will be able to view their own level of eligibility, before and during the auction. Each incumbent bidder will also be apprised of the size of its potential incentive payment on a round-by-round basis during the clock phase.

80 See, e.g., Auctions of Upper Microwave Flexible Use Licenses for Next-Generation Wireless Services; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auctions 101 (28 GHz) and 102 (24 GHz); Bidding in Auction 101 Scheduled to Begin November 14, 2018, Public Notice, 33 FCC Rcd 7575, 7596-98, paras. 50-56 (2018) (Auctions 101 and 102 Procedures Public Notice); Broadcast Incentive Auction Scheduled to Begin on 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), Public Notice, 30 FCC Rcd 8975, 9046, para. 138 (2015); see also 47 CFR § 1.2104(h).

81 See Auction 103 Comment Public Notice at 7-8, para. 18.

82 See Auction of AWS-1 and Broadband PCS Licenses Rescheduled for August 13, 2008; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 78, Public Notice, 23 FCC Rcd 7496, 7536, para. 157 (WTB 2008) (recognizing that limited information procedures may have overall competitive benefits from reduced opportunities for bid signaling, retaliatory bidding, or other anti-competitive strategic bidding) (Auction 78 Procedures Public Notice); Auction of 700 MHz Band Licenses Scheduled for July 19, 2011; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 92, Public Notice, 26 FCC Rcd 3342, 3372, paras. 128 (WTB 2011) (finding that the competitive benefits associated with limited information disclosure procedures support adoption of such procedures).


84 See Auction 103 Comment Public Notice at 8, para. 19.

85 See T-Mobile Comments at 7; AT&T Reply at 3; Verizon Reply at 6-7. The bidding system will provide bidders with a single number, which aggregates the potential payment for each relinquished 39 GHz holding. See Auction 103 Assignment Phase Technical Guide, Sec. 6. Bidders will be able to download this figure after each round. See Verizon Reply at 7.
39. After the close of bidding, bidders’ PEA selections, upfront payment amounts, bidding eligibility, bids, and other bidding-related actions will be made publicly available.

40. We warn applicants that the direct or indirect communication to other applicants or the public disclosure of non-public information (e.g., reductions in eligibility, identities of bidders) could violate the Commission’s rule prohibiting certain communications. Therefore, to the extent an applicant believes that such a disclosure is required by law or regulation, including regulations issued by the SEC, we strongly urge that the applicant consult with the Commission staff in the Auctions Division before making such disclosure.

G. Prohibited Communications and Compliance with Antitrust Laws

41. The rules prohibiting certain communications set forth in section 1.2105(c) apply to each applicant that files a short-form application (FCC Form 175) in Auction 103. Section 1.2105(c)(1) of the Commission’s rules provides that, subject to specified exceptions, “[a]fter the short-form application filing deadline, all applicants are prohibited from cooperating or collaborating with respect to, communicating with or disclosing, to each other or any nationwide provider [of communications services] that is not an applicant, or, if the applicant is a nationwide provider, any non-nationwide provider that is not an applicant, in any manner the substance of their own, or each other’s, or any other applicants’ bids or bidding strategies (including post-auction market structure), or discussing or negotiating settlement agreements, until after the down payment deadline.[”

1. Entities Subject to Section 1.2105(c)

42. An “applicant” for purposes of this rule includes all “controlling interests” in the entity submitting the FCC Form 175 auction application, as well as all holders of interests amounting to 10% or more of the entity, and all officers and directors of that entity. Under section 1.2105(c), a party that submits an application becomes an “applicant” under the rule at the application deadline, and that status does not change based on later developments.

43. We consider AT&T, Sprint, T-Mobile, and Verizon Wireless to be “nationwide providers” for the purposes of the prohibited communications rule for Auction 103.

44. Moreover, for Auction 103, the prohibited communications rule shall apply to communications between a short-form applicant and an incumbent that files an application (FCC Form 175-A) as part of the Initial Commitment process. The rule applies even if such an incumbent chooses not to file FCC Form 175 to bid for licenses in Auction 103.

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86 See 47 CFR § 1.2105(c); see also infra Section II.G (Prohibited Communications and Compliance with Antitrust Laws).

87 See 47 CFR § 1.2105(c).

88 Id.

89 Id. § 1.2105(c)(5)(i).

90 See Star Wireless, LLC v. FCC, 522 F.3d 469, 473-74 (D.C. Cir. 2008). Thus, an auction applicant that does not correct deficiencies in its application, fails to submit a timely and sufficient upfront payment, or does not otherwise become qualified, remains an “applicant” for purposes of the rule and remains subject to the prohibition of certain communications until the Auction 103 down payment deadline.

91 See supra Section II.C (Disclosure of Agreements and Bidding Arrangements).

92 See Auction 103 Comment Public Notice at 4, para. 9; see also Initial Reconfiguration Procedures Public Notice, 34 FCC Rcd at 1402-04, paras. 53-57. For purposes of Auction 103, incumbents filing FCC Form 175-A includes all applicants and listed licensees on FCC Form 175-A. See Updated Reconfiguration Procedures Public Notice at 13-14, para. 36. No later than the opening of the Initial Commitment filing window (i.e., before the window for filing FCC Form 175 for Auction 103), a public notice will announce the availability of FCC Form 175-A in the (continued….)
2. Prohibition Applies Until Down Payment Deadline

45. Section 1.2105(c)’s prohibition of certain communications begins at an auction’s short-form application filing deadline and ends at the auction’s down payment deadline after the auction closes, which will be announced in a future public notice. In addition, for an incumbent that files and/or is identified in an FCC Form 175-A, the Incumbent 39 GHz Licensee Short-Form Application, the prohibition of certain communications begins at the FCC Form 175-A filing deadline on July 15, 2019.

46. AT&T and T-Mobile ask that the Commission delay the application of the prohibition for incumbents, with AT&T specifically requesting that it be delayed until the filing deadline for FCC Form 175, the application to participate in bidding on new licenses. We disagree and affirm the decision in the Updated Reconfiguration Procedures Public Notice to start the prohibition at the FCC Form 175-A deadline. Incumbents must file FCC Form 175-A in order to make an affirmative Initial Commitment with respect to existing licenses. The filing of FCC Form 175-A indicates an incumbent’s interest in the auction and in possibly relinquishing its existing spectrum usage rights in exchange for an incentive payment based on bidding in the auction. For non-incumbents, the analogous filing is FCC Form 175, which indicates an interest in possibly bidding for new licenses. Thus, applying the prohibition for incumbents at the deadline for filing FCC Form 175-A is consistent with the principle underlying the application of the prohibition at the deadline for non-incumbents to file FCC Form 175. Our strong interest in promoting the integrity of the auction process by prohibiting communications that would facilitate coordinated conduct outweigh the reasons provided by AT&T and T-Mobile to depart from this approach.

3. Scope of Prohibition of Communications; Prohibition of Joint Bidding Agreements

47. The Commission updated and revised section 1.2105(c)’s prohibition of communications by auction applicants twice in recent years. In 2015, the Commission amended section 1.2105(c) to Commission’s system, thereby making available to the public information on all covered incumbents. See Reconfigured Holdings Public Notice at 6, para. 18.

93 47 CFR § 1.2105(c)(1).

94 See Updated Reconfiguration Procedures Public Notice at 13, paras. 35-36.

95 See Letter from Jessica B. Lyons, Assistant Vice President–Senior Legal Counsel, AT&T, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177 et al., at 1-2 (filed June 12, 2019) (asserting that the deadline “risks deterring the continued provision of 5G service in the [39 GHz] band”); Letter from Steve B. Sharkey, Vice President, Government Affairs, Technology and Engineering Policy, T-Mobile, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177 et al., at 2 (filed June 12, 2019).

96 See Updated Reconfiguration Procedures Public Notice at 12, paras. 31-32.

97 See Initial Reconfiguration Procedures Public Notice, 34 FCC Rcd at 1403, para. 54.

98 AT&T and T-Mobile also request additional guidance on the application of the prohibited communications rule. As is typical for each auction, we provide guidance on the application of the rule in this Public Notice, based on previous Commission decisions and experience in other auctions. See also Updated Reconfiguration Procedures Public Notice at 13, para. 35 n.69. In addition, consistent with our long-standing practice, we cannot provide safe-harbors for any communications in advance, as a case-by-case factual analysis is almost always required to determine whether the prohibition has been violated. See Prohibited Communications Guidance Public Notice, 30 FCC Rcd at 10808, para. 40 (“As with any communication, all of the surrounding facts and circumstances must be considered when determining whether a particular communication violates the rule.”).

extend the prohibition of communications to cover all applicants for an auction regardless of whether the applicants seek permits or licenses in the same geographic area, or market.\textsuperscript{100} In addition, the rule now applies to communications by applicants with non-applicant nationwide providers of communications services and by nationwide applicants with non-applicant non-nationwide providers.\textsuperscript{101} In connection with those 2015 amendments to the competitive bidding rules, and as discussed above, the Commission now prohibits a “joint bidding arrangement,” including arrangements relating to the permits or licenses being auctioned that address or communicate, directly or indirectly, bidding at the auction, bidding strategies, including arrangements regarding price or the specific permits or licenses on which to bid, and any such arrangements relating to the post-auction market structure.\textsuperscript{102} The revised rule provides limited exceptions for a communication within the scope of any arrangement consistent with the exclusion from our rule prohibiting joint bidding, provided such arrangement is disclosed on the applicant’s auction application.\textsuperscript{103} Applicants may continue to communicate pursuant to any pre-existing agreements, arrangements, or understandings that are solely operational or that provide for the transfer or assignment of licenses, provided that such agreements, arrangements, or understandings are disclosed on their applications and do not both relate to the licenses at auction and address or communicate bids (including amounts), bidding strategies, or the particular permits or licenses on which to bid or the post-auction market structure.\textsuperscript{104}

48. In addition to express statements of bids and bidding strategies, the prohibition against communicating “in any manner” includes public disclosures as well as private communications and indirect or implicit communications.\textsuperscript{105} Consequently, an applicant must take care to determine whether its auction-related communications may reach another applicant.\textsuperscript{106}

49. Parties subject to section 1.2105(c) should take special care in circumstances where their officers, directors, and employees may receive information directly or indirectly relating to any applicant’s bids or bidding strategies. Such information may be deemed to have been received by the applicant under certain circumstances. For example, Commission staff have found that, where an individual serves as an officer and director for two or more applicants, the bids and bidding strategies of one applicant are presumed conveyed to the other applicant through the shared officer, which creates an apparent violation of the rule.\textsuperscript{107}

\textsuperscript{100} See 2015 Part 1 Report and Order, 30 FCC Rcd at 7577, para. 199; 47 CFR § 1.2105(a)(2)(ix), (c)(1).

\textsuperscript{101} 47 CFR § 1.2105(c)(1); see also 2015 Part 1 Report and Order, 30 FCC Rcd at 7577, para. 199.

\textsuperscript{102} See 47 CFR § 1.2105(a)(2)(ix); 2015 Part 1 Report and Order, 30 FCC Rcd at 7575-76, para. 195.


\textsuperscript{104} 47 CFR § 1.2105(a)(2)(ix)(A)-(C); see generally Prohibited Communications Guidance Public Notice, 30 FCC Rcd 10794.

\textsuperscript{105} See generally 2015 Part 1 Report and Order, 30 FCC Rcd at 7577, para. 199; Cascade Access, LLC, Forfeiture Order, 28 FCC Rcd 141, 144, para. 7 (EB 2013) (rejecting argument that the communication was not prohibited because it did not reveal the “substance” of Cascade’s bids or bidding strategies).

\textsuperscript{106} We remind applicants that they must determine whether their communications with other parties are permissible under the rule once the prohibition begins at the deadline for submitting applications, even before the public notice identifying applicants is released.

\textsuperscript{107} See, e.g., Letter from Barbara A. Kreisman, Chief, Video Division, Media Bureau, and Margaret W. Wiener, Chief, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, FCC, to Colby M. May, TCCSA, Inc., d/b/a Trinity Broadcasting Network, 20 FCC Rcd 14648, 14648-49 (2005) (finding apparent violation of communication prohibitions of section 1.2105(c) where applicants with mutually exclusive applications reported sharing same individual as an officer and director and reported having no bidding agreement, which under the rule then in effect would have made an exception to the prohibition applicable).
50. Subject to the exception described above, section 1.2105(c)(1) prohibits applicants from communicating with specified other parties only with respect to “their own, or each other’s, or any other applicant’s bids or bidding strategies.” The Prohibited Communications Guidance Public Notice released in advance of the broadcast incentive auction (Auction 1000) reviewed the scope of the prohibition generally, as well as in that specific auction’s forward auction of spectrum licenses and reverse auction to relinquish broadcast licenses. As the Commission explained therein, a communication conveying “bids or bidding strategies (including post-auction market structure)” must also relate to the “licenses being auctioned” in order to be covered by the prohibition. Thus, the prohibition is limited in scope and does not apply to all communications between or among the specified parties. The Commission consistently has made clear that application of the rule prohibiting communications has never required total suspension of essential ongoing business. Entities subject to the prohibition may negotiate agreements during the prohibition period, provided that the communications involved do not relate both (1) to the licenses being auctioned and (2) to bids or bidding strategies or post-auction market structure.

51. Accordingly, business discussions and negotiations that are unrelated to bidding in Auction 103 and that do not convey information about the bids or bidding strategies, including the post-auction market structure, of an applicant are not prohibited by the rule. Moreover, not even all auction-related information is covered by the prohibition. For example, communicating merely whether a party has or has not applied to participate in Auction 103 will not violate the rule. In contrast, communicating, among other things, how a party will participate, including specific geographic areas selected, specific bid amounts, and/or whether or not the party is placing bids, would convey bids or bidding strategies and would be prohibited.

52. While section 1.2105(c) does not prohibit business discussions and negotiations among auction applicants that are not auction related, each applicant must remain vigilant not to communicate, directly or indirectly, information that affects, or could affect, bids or bidding strategies. Certain discussions might touch upon subject matters that could convey price or geographic information related to bidding strategies. Such subject areas include, but are not limited to, management, sales, local marketing agreements, and other transactional agreements.

53. We caution applicants that bids or bidding strategies may be communicated outside of situations that involve one party subject to the prohibition communicating privately and directly with another such party. For example, the Commission has warned that prohibited “communications concerning bids and bidding strategies may include communications regarding capital calls or requests for

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108 47 CFR § 1.2105(c)(1).
109 See Updated Reconfiguration Procedures Public Notice at 13, para. 33 (citing resources regarding the operation of the prohibition, including the Auctions 101 and 102 Procedures Public Notice and the Prohibited Communications Guidance Public Notice).
110 Prohibited Communications Guidance Public Notice, 30 FCC Rcd at 10806, para. 32.
111 See, e.g., Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Report and Order, 29 FCC Rcd 6567, 6770-71, para. 492 (2014) (citing Application of Todd Stuart Noordyk for a New FM Station on Channel 260A at Manistique, Michigan, Memorandum Opinion and Order, 16 FCC Rcd 18113, 18116–17, para. 12 (2001) (“Our rules do not require the suspension of all relations among auction participants while an auction is pending.”)).
112 Prohibited Communications Guidance Public Notice, 30 FCC Rcd at 10806, paras. 33-34.
113 Id. at 10806, para. 32.
114 Id. at 10796, paras. 6-7.
115 Id. at 10796-97, paras. 8-9.
additional funds in support of bids or bidding strategies to the extent such communications convey information concerning the bids and bidding strategies directly or indirectly.”116 Moreover, the Commission found a violation of the rule against prohibited communications when an applicant used the Commission’s bidding system to disclose “its bidding strategy in a manner that explicitly invited other auction participants to cooperate and collaborate . . . in specific markets”117 and has placed auction participants on notice that the use of its bidding system “to disclose market information to competitors will not be tolerated and will subject bidders to sanctions.”118

54. Likewise, when completing a short-form application, each applicant should avoid any statements or disclosures that may violate section 1.2105(c), particularly in light of the limited information procedures in effect for Auction 103. Specifically, an applicant should avoid including any information in its short-form application that might convey information regarding its PEA selections, such as referring to certain markets in describing agreements, including any information in application attachments that will be publicly available that may otherwise disclose the applicant’s PEA selections, or using applicant names that refer to licenses being offered.

55. Applicants also should be mindful that communicating non-public application or bidding information publicly or privately to another applicant may violate section 1.2105(c) even though that information subsequently may be made public during later periods of the application or bidding processes.

4. Communicating with Third Parties

56. Section 1.2105(c) does not prohibit an applicant from communicating bids or bidding strategies to a third-party, such as a consultant or consulting firm, counsel, or lender. The applicant should take appropriate steps, however, to ensure that any third party it employs for advice pertaining to its bids or bidding strategies does not become a conduit for prohibited communications to other specified parties, as that would violate the rule.119 For example, an applicant might require a third party, such as a lender, to sign a non-disclosure agreement before the applicant communicates any information regarding bids or bidding strategy to the third party.120 Within third-party firms, separate individual employees, such as attorneys or auction consultants, may advise individual applicants on bids or bidding strategies, as long as such firms implement firewalls and other compliance procedures that prevent such individuals from communicating the bids or bidding strategies of one applicant to other individuals representing separate applicants.121 Although firewalls and/or other procedures should be used, their existence is not an absolute defense to liability if a violation of the rule has occurred.122

57. As Commission staff have explained in the context of the Broadcast Incentive Auction, in


119 See, e.g., Prohibited Communications Guidance Public Notice, 30 FCC Rcd at 10798, para. 13 (describing the use of non-disclosure agreements and, for third parties that may be advising multiple applicants, firewalls).

120 Id.

121 Id.; see also Application of Nevada Wireless for a License to Provide 800 MHz Specialized Mobile Radio Service in the Farmington, NM-CO Economic Area (EA 153) Frequency Band A, Memorandum Opinion and Order, 13 FCC Rcd 11973, 11978, para. 12 (1998) (Nevada Wireless Order) (strongly encouraging applicants to implement any firewall procedures necessary and to provide information in their auction applications regarding the procedures).

the case of an individual, the objective precautionary measure of a firewall is not available.\textsuperscript{123} As a result, an individual that is privy to bids or bidding information of more than one applicant presents a greater risk of becoming a conduit for a prohibited communication.\textsuperscript{124} We will take the same approach to interpreting the prohibited communications rule in Auction 103. We emphasize that whether a prohibited communication has taken place in a given case will depend on all the facts pertaining to the case, including who possessed what information, what information was conveyed to whom, and the course of bidding in the auction.\textsuperscript{125}

58. We remind potential applicants that they may discuss the short-form application or bids for specific licenses or license areas with the counsel, consultant, or expert of their choice before the short-form application deadline. Furthermore, the same third-party individual could continue to give advice after the short-form deadline regarding the application, provided that no information pertaining to bids or bidding strategies, including PEAs selected on the short-form application, is conveyed to that individual. To the extent potential applicants can develop bidding instructions prior to the short-form deadline that a third party could implement without changes during bidding, the third party could follow such instructions for multiple applicants provided that those applicants do not communicate with the third party during the prohibition period.\textsuperscript{126}

59. Applicants also should use caution in their dealings with other parties, such as members of the press, financial analysts, or others who might become conduits for the communication of prohibited bidding information. For example, even though communicating that it has applied to participate in the auction will not violate the rule, an applicant’s statement to the press that it intends to stop bidding in an auction could give rise to a finding of a section 1.2105 violation.\textsuperscript{127} Similarly, an applicant’s public statement of intent not to place bids during bidding in Auction 103 could also violate the rule.

5. Section 1.2105(c) Certifications

60. By electronically submitting its FCC Form 175 auction application, each applicant for Auction 103 certifies its compliance with section 1.2105(c) of the rules.\textsuperscript{128} However, the mere filing of a certifying statement as part of an application will not outweigh specific evidence that a prohibited communication has occurred, nor will it preclude the initiation of an investigation when warranted.\textsuperscript{129} Any applicant found to have violated these communication prohibitions may be subject to sanctions.\textsuperscript{130}

\textsuperscript{123} Prohibited Communications Guidance Public Notice, 30 FCC Red at 10800, para. 15.
\textsuperscript{124} Id.
\textsuperscript{125} See id.
\textsuperscript{126} Id. at 10802, para. 20.
\textsuperscript{127} Cf. Wireless Telecommunications Bureau Responds to Questions About the Local Multipoint Distribution Service Auction, Public Notice, 13 FCC Red 341, 347-48 (WTB 1998) (“Public statements can give rise to collusion concerns. This has occurred in the antitrust context, where certain public statements can support other evidence which tends to indicate the existence of a conspiracy.”).
\textsuperscript{128} 47 CFR § 1.2105(a)(2)(ix). In accordance with the 2015 Part 1 Report and Order, if an applicant has a non-controlling interest with respect to more than one application, the applicant must certify that it has established internal control procedures to preclude any person acting on behalf of the applicant from possessing information about the bids or bidding strategies of more than one applicant or communicating such information with respect to either applicant to another person acting on behalf of and possessing such information regarding another applicant. 2015 Part 1 Report and Order, 30 FCC Red at 7577, para. 199.
\textsuperscript{129} Nevada Wireless Order, 13 FCC Red at 11978, para. 13; see also Competitive Bidding Memorandum Opinion and Order, 9 FCC Red at 7689, para. 12.
\textsuperscript{130} See 47 CFR §§ 1.2105(c), 1.2107(d), 1.2109(d).
6. Duty to Report Prohibited Communications

61. Section 1.2105(c)(4) requires that any applicant that makes or receives a communication that appears to violate section 1.2105(c) must report such communication in writing to the Commission immediately, and in no case later than five business days after the communication occurs. Each applicant’s obligation to report any such communication continues beyond the five-day period after the communication is made, even if the report is not made within the five-day period.

7. Procedures for Reporting Prohibited Communications

62. A party reporting any information or communication pursuant to sections 1.65, 1.2105(a)(2), or 1.2105(c)(4) must take care to ensure that any report of a prohibited communication does not itself give rise to a violation of section 1.2105(c). For example, a party’s report of a prohibited communication could violate the rule by communicating prohibited information to other parties specified under the rule through the use of Commission filing procedures that allow such materials to be made available for public inspection.

63. Parties must file only a single report concerning a prohibited communication and must file that report with the Commission personnel expressly charged with administering the Commission’s auctions. This rule is designed to minimize the risk of inadvertent dissemination of information in such reports. Any reports required by section 1.2105(c) must be filed consistent with the instructions set forth in this Public Notice. For Auction 103, such reports must be filed with Margaret W. Wiener, the Chief of the Auctions Division, Office of Economics and Analytics, by the most expeditious means available. Any such report should be submitted by email to Ms. Wiener and sent to auction103@fcc.gov. If you choose instead to submit a report in hard copy, any such report must be delivered only to: Margaret W. Wiener, Chief, Auctions Division, Office of Economics and Analytics, Federal Communications Commission, 445 12th Street, SW, Room 6-C466, Washington, DC 20554.

64. Given the potential competitive sensitivity of public disclosure of information in such a report, a party seeking to report such a prohibited communication should consider submitting its report with a request that the report or portions of the submission be withheld from public inspection by following the procedures specified in section 0.459 of the Commission’s rules. We encourage such parties to coordinate with the Auctions Division staff about the procedures for submitting such reports.

8. Winning Bidders Must Disclose Terms of Agreements

65. Each applicant that is a winning bidder will be required to provide as part of its long-form

131 Id. § 1.2105(c)(4); see also Part 1 Seventh Report and Order, 16 FCC Red at 17553-55 paras. 13-17.


133 Part 1 Procedural Amendments Order, 25 FCC Red at 522, para. 4. This process differs from filing procedures used in connection with other Commission rules and processes, which may call for submission of filings to the Commission’s Office of the Secretary or ECFS. Filing through the Office of Secretary or ECFS could allow the report to become publicly available and might result in the communication of prohibited information to other auction applicants.

134 Id.

135 See 47 CFR § 0.459. Filers requesting confidential treatment of documents must be sure that the cover page of the filing prominently displays that the documents seek confidential treatment. For example, a filing might include a cover page stamped with “Request for Confidential Treatment Attached” or “Not for Public Inspection.” Any such request must cover all the material to which the request applies. Id. § 0.459(a)(1).

136 See infra Section VII (Procedural Matters).
application any agreement or arrangement it has entered into and a summary of the specific terms, conditions, and parties involved in any agreement it has entered into. This applies to any bidding consortia, joint venture, partnership, or agreement, understanding, or other arrangement entered into relating to the competitive bidding process, including any agreement relating to the post-auction market structure. Failure to comply with the Commission’s rules can result in enforcement action.

9. Additional Information Concerning Prohibition of Certain Communications in Commission Auctions

66. A summary listing of documents issued by the Commission and the Bureau/Office addressing the application of section 1.2105(c) is available on the Commission’s auction web page at www.fcc.gov/summary-listing-documents-addressing-application-rule-prohibiting-certain-communications.

10. Antitrust Laws

67. Regardless of compliance with the Commission’s rules, applicants remain subject to the antitrust laws, which are designed to prevent anticompetitive behavior in the marketplace. Compliance with the disclosure requirements of section 1.2105(c)(4) will not insulate a party from enforcement of the antitrust laws. For instance, a violation of the antitrust laws could arise out of actions taking place well before any party submits a short-form application. The Commission has cited a number of examples of potentially anticompetitive actions that would be prohibited under antitrust laws: for example, actual or potential competitors may not agree to divide territories in order to minimize competition, regardless of whether they split a market in which they both do business, or whether they merely reserve one market for one and another market for the other.

68. To the extent we become aware of specific allegations that suggest that violations of the federal antitrust laws may have occurred, we may refer such allegations to the United States Department of Justice for investigation. If an applicant is found to have violated the antitrust laws or the Commission’s rules in connection with its participation in the competitive bidding process, it may be subject to a forfeiture and may be prohibited from participating further in Auction 103 and in future

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137 47 CFR § 1.2107(d); see also infra Section V.C (Long-Form Application (FCC Form 601)). Such agreements must have been entered into prior to the filing of short-form applications pursuant to section 1.2105. 47 CFR § 1.2107(d); see id. § 1.2105.

138 47 CFR § 1.2107(d).

139 See Amendment of Part 1 of the Commission’s Rules—Competitive Bidding Procedures, Third Further Notice of Proposed Rulemaking, 14 FCC Rcd 21558, 21560-61, para. 4 & n.17 (1999) (quoting Competitive Bidding Memorandum Opinion and Order, 9 FCC Rcd at 7689, para. 12) (“[W]e wish to emphasize that all applicants and their owners continue to be subject to existing antitrust laws. Applicants should note that conduct that is permissible under the Commission’s Rules may be prohibited by the antitrust laws.”); Implementation of Section 309(j) of the Communications Act—Competitive Bidding, Fourth Memorandum Opinion and Order, 9 FCC Rcd 6858, 6869, para. 64 n.134 (1994) (“[A]pplicants will also be subject to existing antitrust laws.”) (Fourth Memorandum Opinion and Order).


141 See, e.g., Fourth Memorandum Opinion and Order, 9 FCC Rcd at 6869, para. 59 n.134.

142 Id.

143 Competitive Bidding Second Report and Order, 9 FCC Rcd at 2388, para. 226.
auctions, among other sanctions.\textsuperscript{144}

\section{H. Provisions for Small Businesses and Rural Service Providers}

69. In the\textit{2015 Part 1 Report and Order}, the Commission revised the designated entity rules that apply to all licenses acquired with bidding credits, including those won in Auction 103. A bidding credit represents an amount by which a bidder’s winning bid will be discounted, subject to the caps discussed below.\textsuperscript{145} As set forth in section 1.2110 of the Commission’s rules,\textsuperscript{146} and as described below, these rule revisions include, but are not limited to (1) adopting a two-pronged standard for evaluating eligibility for small business benefits and eliminating the attributable material relationship (AMR) rule,\textsuperscript{147} (2) establishing a new attribution rule for certain disclosable interest holders of applicants claiming designated entity benefits,\textsuperscript{148} (3) updating the gross revenue amounts defining eligibility for small business benefits,\textsuperscript{149} (4) creating a separate bidding credit for eligible rural service providers,\textsuperscript{150} and (5) establishing caps on the total amount of designated entity benefits any eligible winning bidder may receive.\textsuperscript{151}

70. In Auction 103, designated entity bidding credits will be available to applicants demonstrating eligibility for a small business or a rural service provider bidding credit and subsequently winning license(s). These bidding credits will not be cumulative—an applicant is permitted to claim either a small business bidding credit or a rural service provider bidding credit, but not both.\textsuperscript{152} Each applicant must also certify that it is eligible for the claimed bidding credit in its FCC Form 175. In addition to the information provided below, each applicant should review carefully the Commission’s decisions regarding the designated entity provisions as well as the Part 1 rules.\textsuperscript{153}

71. In particular, we remind applicants applying for designated entity bidding credits that they should take due account of the requirements of the Commission’s rules and implementing orders regarding\textit{de jure} and\textit{de facto} control of such applicants.\textsuperscript{154} These rules include a prohibition, which applies to all applicants (whether or not seeking bidding credits), against changes in ownership of the

\begin{footnotesize}
\textsuperscript{144} See id.; 47 CFR § 1.2109(d).
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\textsuperscript{145} Applicants should note that all references to a “winning bid” discussed herein in the context of designated entity bidding credits for Auction 103 (e.g., the application of a small business discount to an applicant’s winning bid) refer to the calculated license price discussed in Section IV.B.5 (Winning Bids in the Clock Phase), below.
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\textsuperscript{146} 47 CFR § 1.2110.
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\textsuperscript{147} \textit{Id.} § 1.2110(b)(3); see 2015 \textit{Part 1 Report and Order}, 30 FCC Rcd at 7502-10, paras. 18-34.
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\textsuperscript{148} 47 CFR § 1.2110(c)(2)(ii)(J); see 2015 \textit{Part 1 Report and Order}, 30 FCC Rcd at 7512-16, paras. 42-53. For purposes of this rule, a disclosable interest holder of an applicant seeking designated entity benefits is defined as any individual or entity holding a 10% or greater interest of any kind in the applicant, including but not limited to, a 10% or greater interest in any class of stock, warrants, options, or debt securities in the applicant or licensee. 47 CFR § 1.2110(c)(2)(ii)(J). The Commission also clarified its designated entity reporting requirements under 47 CFR § 1.2110(n).
\end{footnotesize}

\begin{footnotesize}
\textsuperscript{149} 47 CFR § 1.2110(f)(2); see 2015 \textit{Part 1 Report and Order}, 30 FCC Rcd at 7523-25, paras. 72-75.
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applicant that would constitute an assignment or transfer of control.\textsuperscript{155} Applicants should not expect to receive any opportunities to revise their ownership structure after the filing of their short- and long-form applications, including making revisions to their agreements or other arrangements with interest holders, lenders, or others in order to address potential concerns relating to compliance with the designated entity bidding credit requirements. This policy will help to ensure compliance with the Commission’s rules applicable to the award of bidding credits prior to the conduct of the auction, which will involve competing bids from those that do and do not seek bidding credits, and thus preserves the integrity of the auction process. We also believe that this will meet the Commission’s objectives in awarding licenses through the competitive bidding process.\textsuperscript{156}

72. In Auction 103, an incumbent bidding in the auction and claiming a bidding credit may receive a bidding credit discount only on winning bid amounts that exceed any incentive payment to that incumbent.\textsuperscript{157} This limitation applies even if the incumbent uses different entities that are commonly controlled to submit FCC Form 175-A and FCC Form 175.\textsuperscript{158} The ownership information that an applicant is required to submit at both the short-form and long-form application stages will permit Commission staff to uncover any controlling interest in common in the two entities and ensure that bidding credit discounts are properly calculated when determining payments due.

1. Small Business Bidding Credit

73. For Auction 103, bidding credits will be available to eligible small businesses and consortia thereof, subject to the caps discussed below.\textsuperscript{159} Under the service rules applicable to the UMFUS licenses to be offered in Auction 103, the level of bidding credit available is determined as follows:

- A bidder with attributed average annual gross revenues that do not exceed $55 million for the preceding three years is eligible to receive a 15% discount on its winning bid.\textsuperscript{160}
- A bidder with attributed average annual gross revenues that do not exceed $20 million for the preceding three years is eligible to receive a 25% discount on its winning bid.\textsuperscript{161}

74. The Commission adopted this two-tiered approach in 2016 and made clear that the same two tiers will apply to all bands in the UMFUS.\textsuperscript{162} As the Commission observed at the time, this


\textsuperscript{154} See, e.g., 47 CFR §§ 1.2110-11.

\textsuperscript{155} Id. § 1.2105(b)(2). Pursuant to 47 CFR § 1.929(a)(2), any substantial change in ownership or control is classified as a major amendment. See also id. § 1.927(a)-(b), (h).

\textsuperscript{156} The Commission’s objectives when awarding licenses through competitive bidding include “the development and rapid deployment of new technologies, products, and services for the benefit of the public . . . without administrative or judicial delays” and “promoting economic opportunity and competition and ensuring that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses.” 47 U.S.C. § 309(j)(3)(A)-(B); see also 2016 Spectrum Frontiers Order, 31 FCC Rcd at 8097-101, paras. 244-54.

\textsuperscript{157} See Spectrum Frontiers Fourth R&O, 33 FCC Rcd at 12173-74, para. 43; Updated Reconfiguration Procedures Public Notice at 13, para. 34.

\textsuperscript{158} See Updated Reconfiguration Procedures Public Notice at 13, para. 34.

\textsuperscript{159} See infra Section II.H.3 (Caps on Bidding Credits).

\textsuperscript{160} See 47 CFR §§ 1.2110(f)(2)(i)(C), 30.302(a)(1), (b).

\textsuperscript{161} See id. §§ 1.2110(f)(2)(i)(B), 30.302(a)(2), (b).

approach was successful in the past and provides consistency and predictability for small businesses.\textsuperscript{163} Although the time in which we could reconsider the Commission’s decision in the \textit{2016 Spectrum Frontiers Order} has long passed, WISPA proposes that we establish a third tier with a higher bidding credit percentage.\textsuperscript{164} But neither WISPA—or any other commenter—provides any evidence that the two tiers of bidding credit discounts adopted by the Commission was unsuccessful in attracting small business participation in the first two auctions of mmW spectrum (Auctions 101 and 102). As a result, the Commission’s rationale from 2016 still holds, and we continue to favor a consistent approach to bidding credit discounts for mmW spectrum in Auction 103.

75. Small business bidding credits are not cumulative; an eligible applicant may receive either the 15\% or the 25\% bidding credit on its winning bid, but not both. The Commission’s unjust enrichment provisions also apply to a winning bidder that uses a bidding credit and subsequently seeks to assign or transfer control of its license within a certain period to an entity not qualifying for the same level of small business bidding credit.\textsuperscript{165}

76. Each applicant claiming a small business bidding credit must disclose the gross revenues for the preceding three years for each of the following: (1) the applicant, (2) its affiliates, (3) its controlling interests, and (4) the affiliates of its controlling interests.\textsuperscript{166} The applicant must also submit an attachment that lists all parties with which the applicant has entered into any spectrum use agreements or arrangements for any licenses that may be won by the applicant in Auction 103.\textsuperscript{167} In addition, to the extent that an applicant has an agreement with any disclosable interest holder for the use of more than 25\% of the spectrum capacity of any license that may be won in Auction 103, the identity and the attributable gross revenues of any such disclosable interest holder must be disclosed. This attribution rule will be applied on a license-by-license basis.\textsuperscript{168} As a result, an applicant may be eligible for a bidding credit on some, but not all, of the licenses for which it is bidding in Auction 103.\textsuperscript{169} If an applicant is applying as a consortium of small businesses, the disclosures described in this paragraph must be provided for each consortium member.\textsuperscript{170}

2. \textbf{Rural Service Provider Bidding Credit}

77. An eligible applicant may request a 15\% discount on its winning bid using a rural service provider bidding credit,\textsuperscript{171} subject to the $10 million cap discussed below.\textsuperscript{172} To be eligible for a rural

\textsuperscript{163} Id. at 8100, para. 250.

\textsuperscript{164} See WISPA Comments at 4-5 (suggesting a 35\% bidding credit discount for certain entities).

\textsuperscript{165} See id. § 1.2111. Thus, for example, the Commission’s unjust enrichment provisions would not apply to a winning bidder that uses the 15\% small business bidding credit and seeks to transfer control of its license to an entity that qualifies for either the 15\% small business bidding credit or the rural service provider bidding credit. See infra Section II.H.2 (Rural Service Provider Bidding Credit). The provisions would apply, however, if that same winning bidder uses the 25\% small business bidding credit, unless the proposed transferee also qualifies for the 25\% small business bidding credit.

\textsuperscript{166} 47 CFR §§ 1.2110(b)(1)(i), 1.2112(b)(1)(iv).

\textsuperscript{167} See id. § 1.2112(b)(1)(iii).

\textsuperscript{168} See id. § 1.2110(c)(2)(ii)(J).

\textsuperscript{169} See id.

\textsuperscript{170} Id. §§ 1.2110(b)(4)(i), 1.2110(c)(6), 1.2110(k), 1.2112(b)(1)(vi).

\textsuperscript{171} 2016 Spectrum Frontiers Order, 31 FCC Rcd at 8100, para. 251; see also 47 CFR § 30.302(c). The Commission determines eligibility for bidding credits, including the rural service provider bidding credit, on a service-by-service basis. See 47 CFR § 1.2110(f)(1); see also 2015 Part I Report and Order, 30 FCC Rcd at 7529, para. 85.

\textsuperscript{172} See infra Section II.H.3 (Caps on Bidding Credits).
service provider bidding credit, an applicant must (1) be a service provider that is in the business of providing commercial communications services and, together with its controlling interests, affiliates, and the affiliates of its controlling interests, has fewer than 250,000 combined wireless, wireline, broadband, and cable subscribers; and (2) serve predominantly rural areas, defined as counties with a population density of 100 or fewer persons per square mile. These eligibility requirements must be satisfied by the FCC Form 175 filing deadline. Additionally, an applicant may count any subscriber as a single subscriber even if that subscriber receives more than one service.

78. Each applicant seeking a rural service provider bidding credit must disclose the number of subscribers it has, along with the number of subscribers of its affiliates, controlling interests, and the affiliates of its controlling interests. The applicant must also submit an attachment that lists all parties with which the applicant has entered into any spectrum use agreements or arrangements for any licenses that may be won by the applicant in Auction 103. In addition, to the extent that an applicant has an agreement with any disclosable interest holder for the use of more than 25% of the spectrum capacity of any license that may be won in Auction 103, the identity and the attributable subscribers of any such disclosable interest holder must be disclosed. Like applicants seeking eligibility for small business bidding credits, eligible rural service providers may also form a consortium. If an applicant is applying as a consortium of rural service providers, the disclosures described in this paragraph, including the certification, must be provided for each consortium member.

3. Caps on Bidding Credits

79. As noted above, eligible applicants claiming either a small business or rural service provider bidding credit will be subject to certain caps on the total amount of bidding credit discounts that any eligible applicant may receive. For the reasons discussed in the Auction 103 Comment Public Notice and consistent with RWA’s comments, we adopt our proposals concerning bidding credit caps for Auction 103. Specifically, we adopt a $25 million cap on the total amount of bidding credit discounts that may be awarded to an eligible small business. Additionally, we adopt a $10 million cap on the total amount of bidding credit discounts that may be awarded to an eligible rural service provider. To create parity among eligible small businesses and rural service providers competing against each other in

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173 47 CFR § 1.2110(f)(4)(i); 2015 Part 1 Report and Order, 30 FCC Rcd at 7536-37, para. 104 & n.340. As noted in the 2015 Part 1 Report and Order, the Commission declined “to adopt a specific threshold for the proportion of an applicant’s customers who are located in rural areas, but put prospective applicants on notice that it is [the Commission’s] intent that in order for an applicant to be eligible for a rural service provider bidding credit, the primary focus of its business activity must be the provision of services to rural areas.” 2015 Part 1 Report and Order, 30 FCC Rcd at 7533, para. 94 n.312.

174 For instance, a subscriber receiving both wireline and telephone service and broadband would be counted as a single subscriber. 2015 Part 1 Report and Order, 30 FCC Rcd at 7534, para. 98 n.326.

175 See 47 CFR § 1.2112(b)(1)(v); see also id. § 1.2110(f)(4)(i)(C).

176 See id. § 1.2112(b)(1)(iii).

177 See id. § 1.2110(c)(2)(ii)(J).

178 See id. § 1.2110(b)(4)(i), (c)(6).

179 Id. § 1.2112(b)(1)(vi).


181 See RWA Comments at 2-3.

182 See Auction 103 Comment Public Notice at 6-7, paras. 14-15.
smaller markets, no winning designated entity bidder will be able to obtain more than $10 million in bidding credit discounts in total for licenses won in markets with a population of 500,000 or less.\(^\text{183}\)

80. We reject GeoLink’s suggestion that we refrain from imposing any bidding credit caps in Auction 103 to further level the playing field for all bidders.\(^\text{184}\) The Commission decided in 2015, in a comprehensive reexamination of its competitive-bidding rules, that the amount of bidding credits a designated entity could receive in an auction would be limited.\(^\text{185}\) As the Commission explained, establishing appropriate bidding credit caps “protect[s] the integrity of the [Designated Entity] program by providing opportunities for qualified designated entities, while mitigating the incentives for abuse, consistent with our statutory mandates.”\(^\text{186}\) At that time, the Commission did “not foresee it likely that any subsequent auction would include a bidding [credit] cap that exceeds” the caps established for the Broadcast Incentive Auction.\(^\text{187}\) We applied the same bidding credit caps for Auctions 101 and 102 as we are adopting for Auction 103, and we have no indication that the caps stifled participation in those auctions, as RWA points out.\(^\text{188}\) In Auctions 101 and 102, no bidder came close to being constrained by the caps, which were set to the same levels as those we adopt here.\(^\text{189}\) As such, we are not convinced we should abandon or increase such caps for Auction 103.

4. Attributable Interests

a. Controlling Interests and Affiliates

81. Pursuant to section 1.2110 of the Commission’s rules, an applicant’s eligibility for designated entity benefits is determined by attributing the gross revenues (for those seeking small business benefits) or subscribers (for those seeking rural service provider benefits) of the applicant, its affiliates, its controlling interests, and the affiliates of its controlling interests. Controlling interests of an applicant include individuals and entities with either *de facto* or *de jure* control of the applicant. Typically, ownership of greater than 50% of an entity’s voting stock evidences *de jure* control.\(^\text{190}\) *De facto* control is determined on a case-by-case basis based on the totality of the circumstances.\(^\text{191}\) The following are some common indicia of *de facto* control:

\(\text{\textsuperscript{183}}\) As proposed, markets that are subject to the small market bidding credit cap are PEAs 118–416, excluding PEA 412 (Puerto Rico). See *Auction 103 Comment Public Notice* at 7 n.32. To be clear, if an applicant seeking a small business bidding credit does not claim the full $10 million in bidding credits in those smaller markets, it may apply the remaining balance to its winning bids on licenses in larger markets, up to the aggregate $25 million cap.

\(\text{\textsuperscript{184}}\) See GeoLinks Comments at 3–4.

\(\text{\textsuperscript{185}}\) See *2015 Part 1 Report and Order*, 30 FCC Rcd at 7539, para. 110. The Commission decided in 2015 that only the size—not the existence—of the cap may be determined on an auction-by-auction basis. *Id.* at 7541, para. 114.

\(\text{\textsuperscript{186}}\) *Id.* at 7544, para. 119.

\(\text{\textsuperscript{187}}\) *Id.* at 7541, para. 114.

\(\text{\textsuperscript{188}}\) See RWA Comments at 3 (“Forty percent of the eligible bidders in Auction 101 (28 GHz) and nearly a quarter of the eligible bidders in Auction 102 (24 GHz) sought rural service provider bidding credits. Similarly, at least twenty percent of the eligible bidders in both Auction 101 and Auction 102 sought small business bidding credits.”).

\(\text{\textsuperscript{189}}\) No bidder in Auction 101 or Auction 102 will receive a bidding credit discount greater than approximately $675,000. See *Winning Bidders Announced for Auction of 28 GHz Upper Microwave Flexible Use Service Licenses (Auction 101)*, Public Notice, DA 19-484, Attach. A (WTB/OEA June 3, 2019); *Auction of 24 GHz Upper Microwave Flexible Use Service Licenses Closes; Winning Bidders Announced for Auction 102*, Public Notice, DA 19-485, Attach. A (WTB/OEA June 3, 2019).

\(\text{\textsuperscript{190}}\) 47 CFR § 1.2110(c)(2)(i).

\(\text{\textsuperscript{191}}\) See id.; see also, e.g., *Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, Fifth Memorandum Opinion & Order, 10 FCC Rcd 403, 447-49, 451, 455-56, paras. 80-82, 85-86, 95-96 (1994); *Intermountain Microwave*, Public Notice, 12 FCC 2d 559, 559-60 (1963) (*Intermountain Microwave*); *Application *(continued….)
• the entity constitutes or appoints more than 50% of the board of directors or management committee;
• the entity has authority to appoint, promote, demote, and fire senior executives that control the day-to-day activities of the licensee;
• the entity plays an integral role in management decisions.

82. Applicants should refer to section 1.2110(c)(2) of the Commission’s rules and the FCC Form 175 Instructions to understand how certain interests are calculated in determining control for purposes of attributing gross revenues. For example, officers and directors of an applicant are considered to have a controlling interest in the applicant.

83. Affiliates of an applicant or controlling interest include an individual or entity that (1) directly or indirectly controls or has the power to control the applicant, (2) is directly or indirectly controlled by the applicant, (3) is directly or indirectly controlled by a third party that also controls or has the power to control the applicant, or (4) has an “identity of interest” with the applicant. The Commission’s definition of an affiliate of the applicant encompasses both controlling interests of the applicant and affiliates of controlling interests of the applicant. For more information on the application requirements regarding controlling interests and affiliates, applicants should refer to sections 1.2110(c)(2) and (c)(5) respectively, as well as the FCC Form 175 Instructions.

84. An applicant seeking a small business bidding credit must demonstrate its eligibility for the bidding credit by (1) meeting the applicable small business size standard, based on the controlling interest and affiliation rules discussed above, and (2) retaining control, on a license-by-license basis, over the spectrum associated with the licenses for which it seeks small business benefits. For purposes of the first prong of the standard, applicants should note that control and affiliation may arise through, among other things, ownership interests, voting interests, management and other operating agreements, or the terms of any other types of agreements—including spectrum lease agreements—that independently or together create a controlling, or potentially controlling, interest in the applicant’s or licensee’s business as a whole. In addition, once an applicant demonstrates eligibility as a small business under the first

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prong, it must also be eligible for benefits on a license-by-license basis under the second prong. As part of making the FCC Form 175 certification that it is qualified as a designated entity under section 1.2110, an applicant is certifying that it does not have any spectrum use or other agreements that would confer de jure and de facto control of any license it seeks to acquire with bidding credits.\textsuperscript{199}

85. Applicants should note that, under this standard for evaluating eligibility for small business bidding credits, if an applicant executes a spectrum use agreement that does not comply with the Commission’s relevant standard of de facto control,\textsuperscript{200} it will be subject to unjust enrichment obligations for the benefits associated with that particular license, as well as the penalties associated with any violation of section 310(d) of the Communications Act and related regulations, which require Commission approval of transfers of control.\textsuperscript{201} If that spectrum use agreement (either alone or in combination with the designated entity controlling interest and attribution rules described above), goes so far as to confer control of the applicant’s overall business, the gross revenues of the additional interest holders will be attributed to the applicant, which could render the applicant ineligible for all current and future small business benefits on all licenses.\textsuperscript{202}

b. Limitation on Spectrum Use

86. The Commission determined that a new attribution rule will apply going forward under which the gross revenues (or the subscribers, in the case of a rural service provider) of an applicant’s disclosable interest holder are attributable to the applicant, on a license-by-license basis, if the disclosable interest holder has an agreement with the applicant to use, in any manner, more than 25% of the spectrum capacity of any license won by the applicant and acquired with a bidding credit during the five-year unjust enrichment period for the applicable license.\textsuperscript{203} For purposes of this rule, a disclosable interest holder of an applicant seeking designated entity benefits is defined as any individual or entity holding a 10% or greater interest of any kind in the applicant, including but not limited to, a 10% or greater interest in any class of stock, warrants, options, or debt securities in the applicant or licensee.\textsuperscript{204} Any applicant

\textsuperscript{199} See 47 CFR § 1.2105(a)(2)(iv); 2015 Part 1 Report and Order, 30 FCC Rcd at 7509-10, paras. 33-34; see also 47 CFR § 1.2110(c)(2)(ii)(A). For instance, if an applicant has a spectrum use agreement on a particular license that calls into question whether, under the Commission’s affiliation rules, the user’s revenues should be attributed to the applicant for that particular license, rather than for its overall business operations, the applicant could be ineligible to acquire or retain benefits with respect to that particular license. By taking this license-by-license approach, an applicant need not be eligible for small business benefits on each of the spectrum licenses it holds in order to demonstrate its overall eligibility for such benefits. 2015 Part 1 Report and Order, 30 FCC Rcd at 7509, para. 33.

\textsuperscript{200} See 47 CFR § 1.9010 (defining de facto control for spectrum leasing arrangements); see also Intermountain Microwave, 12 FCC 2d at 559-60 (describing de facto control for non-leasing situations); 47 CFR § 1.2110(c)(2) (defining de facto control for designated entities); Part 1 Fifth Report and Order, 15 FCC Rcd at 15324, para. 61 (incorporating the Intermountain Microwave principles of control into section 1.2110 of the Commission’s rules).

\textsuperscript{201} Although in this scenario the applicant may not be eligible for a bidding credit and may be subject to the Commission’s unjust enrichment rules, the applicant need not be eligible for small business benefits on each of the spectrum licenses it holds in order to demonstrate its overall eligibility for such benefits.

\textsuperscript{202} This rule does not alter the requirement of full dilution in 47 CFR § 1.2110(c)(2)(ii)(A). Except where the leasing standard of de facto control applies under sections 1.9010 and 1.9020 of the secondary market rules, the criteria of Intermountain Microwave and Ellis Thompson will continue to apply to every Commission licensee for purposes of assessing whether it can demonstrate that it retains de facto control of its business venture and spectrum license. 47 CFR §§ 1.9010, 1.9020; Application of Ellis Thompson Corporation, Summary Decision, 10 FCC Rcd 12554, 12555-56, para. 9 (ALJ decision 1995). In the 2015 Part 1 Report and Order, the Commission also modified section 1.9020 of its rules so as to apply the same de facto control standard to designated entity spectrum manager lessors that is applied to non-designated entity spectrum manager lessors. 2015 Part 1 Report and Order, 30 FCC Rcd at 7510-11, paras. 35-39; see 47 CFR § 1.9020.

\textsuperscript{203} See 47 CFR § 1.2110(c)(2)(ii)(J); see also 2015 Part 1 Report and Order, 30 FCC Rcd at 7512-16, paras. 42-53.

\textsuperscript{204} 47 CFR § 1.2110(c)(2)(ii)(J).
seeking a bidding credit for licenses won in Auction 103 will be subject to this attribution rule and must make the requisite disclosures set forth above.\textsuperscript{205}

87. The Commission also determined that certain disclosable interest holders may be excluded from this attribution rule. Specifically, an applicant claiming the rural service provider bidding credit may have spectrum license use agreements with a disclosable interest holder, without having to attribute the disclosable interest holder’s subscribers, so long as the disclosable interest holder is independently eligible for a rural service provider credit and the use agreement is otherwise permissible under the Commission’s existing rules.\textsuperscript{206} If applicable, the applicant must attach to its FCC Form 175 any additional information as may be required to indicate any license (or license area) that may be subject to this attribution rule or to demonstrate its eligibility for the exception from this attribution rule.\textsuperscript{207} Consistent with the Commission’s limited information procedures, the Commission intends to withhold from public disclosure all information contained in any such attachments until after the close of Auction 103.

c. Exceptions from Attribution Rules for Small Businesses and Rural Service Providers

88. Applicants claiming designated entity benefits may be eligible for certain exceptions from the Commission’s attribution rules.\textsuperscript{208} For example, in calculating an applicant’s gross revenues under the controlling interest standard, it will not attribute to the applicant the personal net worth, including personal income, of its officers and directors.\textsuperscript{209} The Commission has also exempted from attribution to the applicant the gross revenues of the affiliates of a rural telephone cooperative’s officers and directors, if certain conditions specified in section 1.2110(b)(4)(iii) of the Commission’s rules are met.\textsuperscript{210} An applicant claiming this exemption must provide, in an attachment, an affirmative statement that the applicant, affiliate and/or controlling interest is an eligible rural telephone cooperative within the meaning of section 1.2110(b)(4)(iii), and the applicant must supply any additional information as may be required to demonstrate eligibility for the exemption from the attribution rule.\textsuperscript{211}

89. An applicant claiming a rural service provider bidding credit may be eligible for an exception from the Commission’s attribution rules as an existing rural partnership. To qualify for this exception, an applicant must be a rural partnership providing service as of July 16, 2015, and each member of the rural partnership must individually have fewer than 250,000 combined wireless, wireline, broadband, and cable subscribers.\textsuperscript{212} Because each member of the rural partnership must individually

\textsuperscript{205} See \textit{supra} Sections II.H.1 (Small Business Bidding Credit), II.H.2 (Rural Service Provider Bidding Credit).

\textsuperscript{206} 47 CFR § 1.2110(c)(2)(ii)(J); see also 2015 \textit{Part 1 Report and Order}, 30 FCC Rcd at 7513, para. 46.

\textsuperscript{207} To the extent an Auction 103 applicant is required to submit any such additional information, the applicant must not disclose details of its submission to others as it would reveal information regarding its PEA selection(s).

\textsuperscript{208} See, e.g., 47 CFR § 1.2110(b)(4).

\textsuperscript{209} See id. § 1.2110(c)(2)(ii)(F); see also Part 1 \textit{Third R&O Second Recon/Part 1 Fifth R&O Recon}, 18 FCC Rcd at 10185-86, paras. 8-9. However, to the extent that the officers and directors of the applicant are controlling interest holders of other entities, the gross revenues of those entities will be attributed to the applicant. Moreover, if an officer or director operates a separate business, the gross revenues derived from that separate business would be attributed to the applicant, although any personal income from such separate business would not be attributed. \textit{See Part 1 Third R&O Second Recon/Part 1 Fifth R&O Recon}, 18 FCC Rcd at 10186, para. 9.


\textsuperscript{212} \textit{See} 47 CFR § 1.2110(f)(4)(i)(C)(2); 2015 \textit{Part 1 Report and Order}, 30 FCC Rcd at 7536, para. 102. Thus, the (continued….)
90. Finally, a consortium of small businesses or rural service providers may seek an exception from the Commission’s attribution rules. Under the Commission’s rules, a consortium of small businesses or rural service providers is a conglomerate organization composed of two or more entities, each of which individually satisfies the definition of small business or rural service provider. As set forth above, a consortium must provide additional information for each member demonstrating each member’s eligibility for the claimed bidding credit in order to show that the applicant satisfies the eligibility criteria for the bidding credit. The gross revenue or subscriber information of each consortium member will not be aggregated for purposes of determining the consortium’s eligibility for the claimed bidding credit. However, this information must be provided to ensure that each consortium member qualifies for the bidding credit sought by the consortium.

I. Provisions Regarding Former and Current Defaulters

91. Pursuant to the rules governing competitive bidding, each applicant must make certifications regarding whether it is a current or former defaulter or delinquent. A current defaulter or delinquent is not eligible to participate in Auction 103, but a former defaulter or delinquent may participate so long as it is otherwise qualified and, as discussed below, makes an upfront payment that is 50% more than would otherwise be necessary. Accordingly, each applicant must certify under penalty of perjury on its FCC Form 175 that it, its affiliates, its controlling interests, and the affiliates of its controlling interests are not in default on any payment for a Commission construction permit or license (including down payments) and that it is not delinquent on any non-tax debt owed to any Federal agency. Additionally, an applicant must certify under penalty of perjury whether it (along with its controlling interests) has ever been in default on any payment for a Commission construction permit or license (including down payments) or has ever been delinquent on any non-tax debt owed to any Federal agency.

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Commission will evaluate eligibility for an existing rural wireless partnership on the same basis as it would for an applicant applying for a bidding credit as a consortium of rural service providers. See 2015 Part I Report and Order, 30 FCC Rcd at 7536, para. 102 n.336.

213 2015 Part I Report and Order, 30 FCC Rcd at 7536, para. 103. We also note that members of such partnerships that fall under this exception may also apply as individual applicants or members of a consortium (to the extent that it is otherwise permissible to do so under the Commission’s rules) and seek eligibility for a rural service provider bidding credit. Id. at 7536, 7582, paras. 102-03, 210.

214 47 CFR § 1.2110(c)(6).

215 See infra Section III.F (Upfront Payments).

216 An applicant is considered a “current defaulter” or a “current delinquent” when it, any of its affiliates, any of its controlling interests, or any of the affiliates of its controlling interests, is in default on any payment for any Commission construction permit or license (including a down payment) or is delinquent on any non-tax debt owed to any Federal agency as of the filing deadline for auction applications. See Part I Fifth Report and Order, 15 FCC Rcd at 15317, para. 42 & n.142; Wireless Telecommunications Bureau Reminds Prospective Broadband PCS Spectrum Auction Applicants of Default and Delinquency Disclosure Requirements, Public Notice, 19 FCC Rcd 21920 (2004) (Auction Default Disclosure Public Notice). This public notice may be found at www.fcc.gov/auction/58.

217 See infra Section III.F (Upfront Payments).

218 47 CFR §§ 1.2105(a)(2)(xi), (xii), (b)(1), 1.2106(a). For purposes of evaluating the certifications under section 1.2105(a)(2)(xi) and (xii), we clarify that “non-tax debt owed to any Federal agency” includes, within the meaning of the rule, all amounts owed under Federal programs, including contributions to the Universal Service Fund, Telecommunications Relay Services Fund, and the North American Numbering Plan Administration, notwithstanding that the administrator of any such fund may not be considered a Federal “agency” under the Debt Collection Improvement Act of 1996, Pub. L. No. 104-134, 110 Stat. 1321 (1996) (codified in relevant parts at 31 (continued….)
agency, subject to the exclusions described below. For purposes of making these certifications, the term “controlling interest” is defined in section 1.2105(a)(4)(i) of the Commission rules.

92. Under the Commission’s rule regarding applications by former defaulters, an applicant is considered a “former defaulter” or a “former delinquent” when, as of the FCC Form 175 deadline, the applicant or any of its controlling interests has defaulted on any Commission construction permit or license or has been delinquent on any non-tax debt owed to any Federal agency, but has since remedied all such defaults and cured all of the outstanding non-tax delinquencies. For purposes of the certification under section 1.2105(a)(2)(xii), the applicant may exclude from consideration any cured default on a Commission construction permit or license or cured delinquency on a non-tax debt owed to a Federal agency for which any of the following criteria are met: (1) the notice of the final payment deadline or delinquency was received more than seven years before the FCC Form 175 filing deadline, (2) the default or delinquency amounted to less than $100,000, (3) the default or delinquency was paid within two quarters (i.e., six months) after receiving the notice of the final payment deadline or delinquency, or (4) the default or delinquency was the subject of a legal or arbitration proceeding and was cured upon resolution of the proceeding. With respect to the first exclusion, notice to a debtor may include notice of a final payment deadline or notice of delinquency and may be express or implied depending on the origin of any Federal non-tax debt giving rise to a default or delinquency. Additionally, for the third exclusion, the date of receipt of the notice of a final default deadline or delinquency by the intended party or debtor will be used for purposes of verifying receipt of notice.

93. In addition to this Public Notice, applicants are encouraged to review previous guidance on default and delinquency disclosure requirements in the context of the auction short-form application process. Parties are also encouraged to consult with Auctions Division staff if they have any questions about default and delinquency disclosure requirements.

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94. We consider outstanding debts owed to the United States Government, in any amount, to be a serious matter. The Commission adopted rules, including a provision referred to as the “red light rule” that implement its obligations under the Debt Collection Improvement Act of 1996, which governs the collection of debts owed to the United States. Under the red light rule, applications and other requests for benefits filed by parties that have outstanding debts owed to the Commission will not be processed. When adopting that rule, the Commission explicitly declared, however, that its competitive bidding rules “are not affected” by the red light rule. As a consequence, the Commission’s adoption of the red light rule does not alter the applicability of any of its competitive bidding rules, including the provisions and certifications of sections 1.2105 and 1.2106, with regard to current and former defaults or delinquencies.

95. We remind each applicant, however, that its Red Light Display System, which provides information regarding debts currently owed to the Commission, may not be determinative of an auction applicant’s ability to comply with the default and delinquency disclosure requirements of section 1.2105. Thus, while the red light rule ultimately may prevent the processing of long-form applications by auction winners, an auction applicant’s lack of current “red light” status is not necessarily determinative of its eligibility to participate in an auction (or whether it may be subject to an increased upfront payment obligation). Moreover, a prospective applicant in Auction 103 should note that any long-form applications filed after the close of bidding will be reviewed for compliance with the Commission’s red light rule, and such review may result in the dismissal of a winning bidder’s long-form application. We encourage each applicant to carefully review all records and other available Federal agency databases and information sources to determine whether the applicant, or any of its affiliates, or any of its controlling interests, or any of the affiliates of its controlling interests, owes or was ever delinquent in the payment of non-tax debt owed to any Federal agency.

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reason after the close of an auction will be in default and subject to a default payment. 47 CFR § 1.2109(c).

Commission staff provide individual notice of the amount of such a default payment as well as procedures and information required by the Debt Collection Improvement Act of 1996, including the payment due date and any charges, interest, and/or penalties that accrue in the event of delinquency. See, e.g., 31 U.S.C. §§ 3716, 3717; 47 CFR §§ 1.1911, 1.1912, 1.1940. For purposes of the certifications required on an FCC Form 175, such notice provided by Commission staff assessing a default payment arising out of a default on a winning bid constitutes notice of the final payment deadline with respect to a default on a Commission license.

225 See id. at 7567, para. 173 n.559.
228 Id. at 6541, para. 3 n.11 (specifically noting the current defaulter and former defaulter certifications of 47 CFR § 1.2105(a)(2)(x) and (xi) and stating that “[t]hese rules are not affected by the red light rule”).
230 Debt Collection Report and Order, 19 FCC Rcd at 6540-42, paras. 1, 3-5; see also 47 CFR § 1.1114.
231 Applicants that have their long-form applications dismissed will be deemed to have defaulted and will be subject to default payments under 47 CFR §§ 1.2104(g) and 1.2109(c).
J. Optional Applicant Status Identification

96. Applicants owned by members of minority groups and/or women, as defined in section 1.2110(c)(3), and rural telephone companies, as defined in section 1.2110(c)(4), may identify themselves regarding this status in filling out their FCC Form 175 applications. This applicant status information is collected for statistical purposes only and assists the Commission in monitoring the participation of various groups in its auctions.

K. Modifications to FCC Form 175

1. Only Minor Modifications Allowed

97. After the initial FCC Form 175 filing deadline, an Auction 103 applicant will be permitted to make only minor changes to its application consistent with the Commission’s rules. Examples of minor changes include the deletion or addition of authorized bidders (to a maximum of three); the revision of addresses and telephone numbers of the applicant, its responsible party, and its contact person; and change in the applicant’s selected bidding option (electronic or telephonic). Major modification to an FCC Form 175 (e.g., change of PEA selection, certain changes in ownership that would constitute an assignment or transfer of control of the applicant, change in the required certifications, change in applicant’s legal classification that results in a change in control, or change in claimed eligibility for a higher percentage of bidding credit) will not be permitted after the initial FCC Form 175 filing deadline. If an amendment reporting changes is a “major amendment,” as described in section 1.2105(b)(2), the major amendment will not be accepted and may result in the dismissal of the application.

2. Duty to Maintain Accuracy and Completeness of FCC Form 175

98. Pursuant to section 1.65 of the Commission’s rules, each applicant has a continuing obligation to maintain the accuracy and completeness of information furnished in a pending application, including a pending application to participate in Auction 103. Consistent with the requirements for our

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232 47 CFR § 1.2110(c)(3).
233 Id. § 1.2110(c)(4).
234 For instance, designated entities are defined as small businesses (including businesses owned by members of minority groups and/or women), rural telephone companies, and rural service providers. Id. § 1.2110(a).
235 See id. § 1.2105(b)(2). Minor amendments include any changes that are not major, such as correcting typographical errors and supplying or correcting information as requested to support the certifications made in the application. Id.
236 See id.; see also Two Way Radio of Carolina, Inc., Memorandum Opinion and Order, 14 FCC Rcd 12035 (1999) (Two Way Radio) (holding that auction applicant was not allowed to change its designated entity status after application filing deadline).
237 See 47 CFR § 1.2105(b)(2). Any change in control of an applicant—resulting from a merger, for example—will be considered a major modification, and the application will consequently be dismissed. The Commission reiterates that, even if an applicant’s FCC Form 175 is dismissed, the applicant would remain subject to the communication prohibitions of 47 CFR § 1.2105(c) until the down payment deadline for Auction 103.
238 See id. §§ 1.65; 1.2105(b)(4). For purposes of sections 1.65 and 1.2105(b)(4), an applicant’s FCC Form 175 and associated attachments will remain pending until the release of a public notice announcing the close of the auction. However, we remind Auction 103 applicants that they remain subject to the section 1.2105(c) prohibition of certain communications until the post-auction deadline for making down payments on winning bids. See supra Section II.G.2 (Prohibition Applies Until Down Payment Deadline). An applicant’s post-auction application (FCC Form 601) is considered pending from the time it is accepted for filing by the Commission until a Commission grant or denial of the application is no longer subject to reconsideration by the Commission or to review by any court. 47 CFR § 1.65.
spectrum auctions, an applicant for Auction 103 must furnish additional or corrected information to the Commission within five business days after a significant occurrence, or amend its FCC Form 175 no more than five business days after the applicant becomes aware of the need for the amendment.\textsuperscript{239} An applicant is obligated to amend its pending application(s) even if a reported change may result in the dismissal of the application because it is subsequently determined to be a major modification.

3. Modifying an FCC Form 175

99. As noted above, a party seeking to participate in Auction 103 must file an FCC Form 175 electronically via the FCC’s Auction Application System. During the initial filing window, an applicant will be able to make any necessary modifications to its FCC Form 175 in the Auction Application System. An applicant that has certified and submitted its FCC Form 175 before the close of the initial filing window may continue to make modifications as often as necessary until the close of that window; however, the applicant must re-certify and re-submit its FCC Form 175 before the close of the initial filing window to confirm and effect its latest application changes. After each submission, a confirmation page will be displayed stating the submission time and submission date.\textsuperscript{240}

100. An applicant will also be allowed to modify its FCC Form 175 in the Auction Application System, except for certain fields,\textsuperscript{241} during the resubmission filing window and after the release of the public notice announcing the qualified bidders for an auction. During these times, if an applicant needs to make permissible minor changes to its FCC Form 175 or must make changes in order to maintain the accuracy and completeness of its application pursuant to sections 1.65 and 1.2105(b)(4), it must make the change(s) in the Auction Application System and then re-certify and re-submit its application to confirm and effect the change(s).

101. An applicant’s ability to modify its FCC Form 175 in the Auction Application System will be limited between the closing of the initial filing window and the opening of the application resubmission filing window, and between the closing of the resubmission filing window and the release of the public notice announcing the qualified bidders for an auction. During these periods, an applicant will be able to view its submitted application, but it will be permitted to modify only the applicant’s address, responsible party address, contact information (e.g., name, address, telephone number, etc.), and bidding preference (telephonic or electronic) in the Auction Application System. An applicant will not be able to modify any other pages of the FCC Form 175 in the Auction Application System during these periods. If, during these periods, an applicant needs to make other permissible minor changes to its FCC Form 175, or changes to maintain the accuracy and completeness of its application pursuant to sections 1.65 and 1.2105(b)(4), the applicant must submit a letter briefly summarizing the changes to its FCC Form 175 via email to auction103@fcc.gov. The email summarizing the changes must include a subject line referring to Auction 103 and the name of the applicant, for example, “Re: Changes to Auction 103 Auction Application of XYZ Corp.” Any attachments to the email must be formatted as Adobe® Acrobat® (PDF) or Microsoft® Word documents. An applicant that submits its changes in this manner must subsequently modify, certify, and submit its FCC Form 175 application(s) electronically in the Auction Application System once it is again open and available to applicants.

102. Applicants should also note that even at times when the Auction Application System is open and available to applicants, the system will not allow an applicant to make certain other permissible

\textsuperscript{239} See 47 CFR §§ 1.65; 1.2105(b)(4). We remind each applicant of its duty to continuously maintain the accuracy of information submitted in its auction application. See, e.g., Vermont Telephone Company, Inc., Notice of Apparent Liability for Forfeiture, 26 FCC Rcd 14130, 14134, para. 11 (EB 2011).

\textsuperscript{240} We advise applicants to retain a copy of this confirmation page.

\textsuperscript{241} Specifically, an applicant will not be allowed to modify electronically in the Auction Application System the applicant’s legal classification, the applicant’s name, or the certifying official.
changes itself (e.g., correcting a misstatement of the applicant’s legal classification). If an applicant needs to make a permissible minor change of this nature, it must submit a written request by email to auction103@fcc.gov requesting that the Commission manually make the change on the applicant’s behalf. Once Commission staff has informed the applicant that the change has been made in the Auction Application System, the applicant must then re-certify and re-submit its FCC Form 175 in the Auction Application System to confirm and effect the change(s).

103. As with filing the FCC Form 175, any amendment(s) to the application and related statements of fact must be certified by an authorized representative of the applicant with authority to bind the applicant. Applicants should note that submission of any such amendment or related statement of fact constitutes a representation by the person certifying that he or she is an authorized representative with such authority and that the contents of the amendment or statement of fact are true and correct.

104. Applicants must not submit application-specific material through the Commission’s Electronic Comment Filing System. Further, as discussed above, parties submitting information related to their applications should use caution to ensure that their submissions do not contain confidential information or communicate information that would violate section 1.2105(c) or the limited information procedures adopted for Auction 103. An applicant seeking to submit, outside of the Auction Application System, information that might reflect non-public information, such as an applicant’s PEA selection(s), upfront payment amount, or bidding eligibility, should consider including in its email a request that the filing or portions of the filing be withheld from public inspection until the end of the prohibition of certain communications pursuant to section 1.2105(c).

105. Questions about FCC Form 175 amendments should be directed to the Auctions Division at (202) 418-0660.

III. PREPARING FOR BIDDING IN AUCTION 103

A. Due Diligence

106. We remind each potential bidder that it is solely responsible for investigating and evaluating all technical and marketplace factors that may have a bearing on the value of the licenses that it is seeking in Auction 103. The Commission makes no representations or warranties about the use of this spectrum or these licenses for particular services. Each applicant should be aware that a Commission auction represents an opportunity to become a Commission licensee, subject to certain conditions and regulations. This includes the established authority of the Commission to alter the terms of existing licenses by rulemaking, which is equally applicable to licenses awarded by auction. A Commission auction does not constitute an endorsement by the Commission of any particular service, technology, or product, nor does a Commission license constitute a guarantee of business success.

107. An applicant should perform its due diligence research and analysis before proceeding, as it would with any new business venture. In particular, we encourage each potential bidder to perform technical analyses and/or refresh its previous analyses to assure itself that, should it become a winning bidder for any Auction 103 license, it will be able to build and operate facilities that will fully comply with all applicable technical and legal requirements. We urge each applicant to inspect any prospective sites for communications facilities located in, or near, the geographic area for which it plans to bid, confirm the availability of such sites, and to familiarize itself with the Commission’s rules regarding the

242 This is the case because certain fields on the FCC Form 175 will no longer be changeable by the applicant after the initial filing window closes.

National Environmental Policy Act.\textsuperscript{244}

108. We also encourage each applicant in Auction 103 to continue to conduct its own research throughout the auction in order to determine the existence of pending or future administrative or judicial proceedings that might affect its decision on continued participation in the auction. Each applicant is responsible for assessing the likelihood of the various possible outcomes and for considering the potential impact on licenses available in an auction. The due diligence considerations mentioned in this Public Notice do not constitute an exhaustive list of steps that should be undertaken prior to participating in Auction 103. As always, the burden is on the potential bidder to determine how much research to undertake, depending upon the specific facts and circumstances related to its interests.

109. Applicants are solely responsible for identifying associated risks and for investigating and evaluating the degree to which such matters may affect their ability to bid on, otherwise acquire, or make use of the licenses available in Auction 103. Each applicant is responsible for undertaking research to ensure that any licenses won in the auction will be suitable for its business plans and needs. Each potential bidder must undertake its own assessment of the relevance and importance of information gathered as part of its due diligence efforts.

110. The Commission makes no representations or guarantees regarding the accuracy or completeness of information in its databases or any third-party databases, including, for example, court docketing systems. To the extent the Commission’s databases may not include all information deemed necessary or desirable by an applicant, it must obtain or verify such information from independent sources or assume the risk of any incompleteness or inaccuracy in said databases. Furthermore, the Commission makes no representations or guarantees regarding the accuracy or completeness of information that has been provided by incumbent licensees and incorporated into its databases.

B. Licensing Considerations

1. Incumbency and Sharing Issues

111. Potential applicants in Auction 103 should consider carefully the operations of incumbent licensees currently in the 39 GHz band when developing business plans, assessing market conditions, and evaluating the availability of equipment for mmW services. Each applicant should follow closely releases from the Commission concerning these issues\textsuperscript{245} and consider carefully the technical and economic implications for commercial use of the UMFUS bands.

112. In addition to incumbent licensees, potential applicants in Auction 103 should consider carefully the implications of the Commission’s sharing schemes for the Upper 37 GHz band. This includes satellite/terrestrial sharing in the Upper 37 GHz, 39 GHz, and 47 GHz bands.\textsuperscript{246} Further, licensees operating in the Upper 37 GHz band near specific Federal sites must coordinate with those

\textsuperscript{244} 47 CFR Part 1, Subpart I.

\textsuperscript{245} For example, the Updated Reconfiguration Procedures Public Notice describes the transition process for existing 39 GHz licensees. See Updated Reconfiguration Procedures Public Notice at 16-17, paras. 47-51.

Federal operations.\textsuperscript{247} Recently, in the *Spectrum Frontiers Fifth R&O*, the Commission established a coordination process to accommodate the military’s potential need for additional sites in the Upper 37 GHz band, while protecting the interests of non-Federal licensees.\textsuperscript{248}

2. **International Coordination**

113. Potential bidders seeking licenses for geographic areas adjacent to the Canadian and Mexican border should be aware that the use of some or all of the upper microwave frequencies they acquire in Auction 103 are subject to international agreements with Canada and Mexico.\textsuperscript{249} The Commission routinely works with the United States Department of State and Canadian and Mexican government officials to ensure the efficient use of the spectrum as well as interference-free operations in the border areas near Canada and Mexico. Until such time as any adjusted agreements, as needed, between the United States, Mexico, and/or Canada can be agreed to, operations in the upper microwave bands must not cause harmful interference across the border, consistent with the terms of the agreements currently in force.\textsuperscript{250}

3. **Environmental Review Requirements**

114. Licensees must comply with the Commission’s rules for environmental review under the National Environmental Policy Act (NEPA),\textsuperscript{251} the National Historic Preservation Act (NHPA),\textsuperscript{252} and other environmental statutes.\textsuperscript{253} Licensees and other applicants that propose to build certain types of communications facilities for licensed service must follow Commission procedures implementing obligations under NEPA and NHPA prior to constructing the facilities.\textsuperscript{254} Under the NEPA, a licensee or applicant must assess if certain environmentally sensitive conditions specified in the Commission’s rules are relevant to the proposed facilities, and prepare an environmental assessment (EA) when applicable.\textsuperscript{255} If an EA is required, facilities may not be constructed until environmental processing is completed. Under the NHPA, a licensee or applicant must follow the procedures in section 1.1320 of the Commission’s rules,\textsuperscript{256} the *Nationwide Programmatic Agreement Regarding the Section 106 National*...
Historic Preservation Act Review Process, and the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas. Compliance with section 106 of the NHPA requires tribal consultation, and if construction of the communications facilities would have adverse effects on historic or tribally significant properties, an EA must be prepared.

4. Mobile Spectrum Holdings Policies

115. We remind bidders of the Commission’s mobile spectrum holding policies applicable to the mmW bands. Specifically, for purposes of reviewing proposed secondary market transactions, the Commission adopted a threshold of 1850 megahertz of combined mmW spectrum in the 24 GHz, 28 GHz, 37 GHz, 39 GHz, and 47 GHz bands. Further, the Commission will conduct an ex post case-by-case review of the acquisition through auction of spectrum in the UMFUS bands. In particular, the Commission found that it is in the public interest to review applications for initial licenses filed post-auction on a case-by-case basis using the same 1850 megahertz threshold it uses for reviewing applications for secondary market transactions.

C. Bidder Education

116. Before the opening of the short-form filing window for Auction 103 on August 26, 2019, detailed educational information will be provided in various formats to would-be participants on the Auction 103 web page. Specifically, we direct the Office to provide various materials on the pre-bidding processes in advance of the opening of the short-form application window, beginning with the release of step-by-step instructions for completing the FCC Form 175. In addition, the Office will provide an online application procedures tutorial for the auction covering information on pre-bidding preparation, completing short-form applications, and the application review process.

117. In advance of the start of the mock auction, the Office will provide educational materials on the bidding processes for Auction 103, beginning with release of a user guide for the bidding system and bidding system file formats, followed by an online bidding procedures tutorial. We recognize the importance of these materials to applicants’ and bidders’ comprehension of the bidding procedures we adopt herein. Accordingly, the educational materials shall be released as soon as reasonably possible to provide potential applicants and bidders with time to understand them and ask any questions before having to make material decisions about their participation in the auction. However, we cannot announce the release dates at this juncture, and the file formats (and other materials) might not be released prior to the short-form application deadline, as T-Mobile and Verizon request, or at least 30 days prior to the start of bidding, as AT&T requests.

118. We believe that parties interested in participating in Auction 103 will find the interactive, online tutorials an efficient and effective way to further their understanding of the application and bidding processes. The online tutorials will allow viewers to navigate the presentation outline, review written notes, listen to audio of the notes, and search for topics using a text search function. Additional features

258 47 CFR § 1.1307.
259 2017 Spectrum Frontiers Order, 32 FCC Rcd at 11011, para. 74.
260 2018 Spectrum Frontiers Order, 33 FCC Rcd at 5590, para. 34. The Commission previously eliminated the pre-auction limit of 1250 megahertz that had been adopted for the 28 GHz, 37 GHz, and 39 GHz bands, consistent with the Commission’s conclusion not to adopt a pre-auction limit for the 24 GHz and 47 GHz bands. Id. at 5589-90, paras. 32-33.
261 As in Auction 102, there may be separate materials prepared for the clock and assignment phases of Auction 103.
262 See T-Mobile Comments at 3-5; Verizon Reply at 6.
263 See AT&T Reply at 2-3.
of this web-based tool include links to auction-specific Commission releases, email links for contacting Commission staff, and screen shots of the online application and bidding systems. The online tutorials will be accessible in the Education section of the Auction 103 website at www.fcc.gov/auction/103. Once posted, the tutorials will be accessible anytime.

D. Short-Form Applications: Due Before 6:00 p.m. ET on September 9, 2019

119. In order to be eligible to bid in Auction 103, an applicant must first follow the procedures to submit a short-form application (FCC Form 175) electronically via the Auction Application System, following the instructions set forth in the FCC Form 175 Instructions. The short-form application will become available with the opening of the initial filing window and must be submitted prior to 6:00 p.m. ET on September 9, 2019. Late applications will not be accepted. No application fee is required.

120. Applications may be filed at any time beginning at noon ET on August 26, 2019, until the filing window closes at 6:00 p.m. ET on September 9, 2019. Applicants are strongly encouraged to file early and are responsible for allowing adequate time for filing their applications. There are no limits or restrictions on the number of times an application can be updated or amended until the initial filing deadline on September 9, 2019.

121. An applicant must always click on the CERTIFY & SUBMIT button on the “Certify & Submit” screen to successfully submit its FCC Form 175 and any modifications; otherwise, the application or changes to the application will not be received or reviewed by Commission staff. Additional information about accessing, completing, and viewing the FCC Form 175 is provided in the FCC Form 175 Instructions. Applicants requiring technical assistance should contact FCC Auctions Technical Support at (877) 480-3201, option nine; (202) 414-1250; or (202) 414-1255 (text telephone (TTY)); hours of service are Monday through Friday, from 8:00 a.m. to 6:00 p.m. ET. 264 In order to provide better service to the public, all calls to Technical Support are recorded.

E. Application Processing and Minor Modifications

1. Public Notice of Applicant’s Initial Application Status and Opportunity for Minor Modifications

122. After the deadline for filing auction applications, the Commission will process all timely submitted applications to determine whether each applicant has complied with the application requirements and provided all information concerning its qualifications for bidding. The Office will issue a public notice with applicants’ initial application status identifying (1) those that are complete and (2) those that are incomplete or deficient because of defects that may be corrected. The public notice will include the deadline for resubmitting corrected applications and a paper copy will be sent to the contact address listed in the FCC Form 175 for each applicant by overnight delivery. In addition, each applicant with an incomplete application will be sent information on the nature of the deficiencies in its application, along with the name and phone number of a Commission staff member who can answer questions specific to the application.

123. After the initial application filing deadline on September 9, 2019, applicants can make only minor modifications to their applications. 265 Major modifications (e.g., change of license or PEA selection, certain changes in ownership that would constitute an assignment or transfer of control of the applicant, change in the required certifications, change in applicant’s legal classification that results in a change in control, or change in claimed eligibility for a higher percentage of bidding credit) will not be

264 We caution applicants that the Commission periodically performs scheduled maintenance of its IT systems. During scheduled maintenance activities, which typically occur over the weekends, every effort is made to minimize any downtime to auction-related systems, including the auction application system. However, there are occasions when auction-related systems may be temporarily unavailable.

265 See supra Section II.K (Modifications to FCC Form 175).
permitted. After the deadline for resubmitting corrected applications, an applicant will have no further opportunity to cure any deficiencies in its application or provide any additional information that may affect Commission staff’s ultimate determination of whether and to what extent the applicant is qualified to participate in Auction 103.

124. Commission staff will communicate only with an applicant’s contact person or certifying official, as designated on the applicant’s FCC Form 175, unless the applicant’s certifying official or contact person notifies Commission staff in writing that another representative is authorized to speak on the applicant’s behalf. Authorizations may be sent by email to auction103@fcc.gov.

2. Public Notice of Applicant’s Final Application Status After Upfront Payment Deadline

125. After Commission staff review resubmitted applications, the Office will release a public notice identifying applicants that have become qualified bidders for that auction. A Qualified Bidders Public Notice will be issued before bidding in the auction begins. Qualified bidders are those applicants with submitted FCC Form 175 applications that are deemed timely filed and complete.

F. Upfront Payments

126. In order to be eligible to bid in Auction 103, a sufficient upfront payment and a complete and accurate FCC Remittance Advice Form (FCC Form 159, Revised 2/03) must be submitted before 6:00 p.m. ET on October 22, 2019. After completing its short-form application, an applicant will have access to an electronic pre-filled version of the FCC Form 159. An accurate and complete FCC Form 159 must accompany each payment. Proper completion of this form is critical to ensuring correct crediting of upfront payments. Payers using the pre-filled FCC Form 159 are responsible for ensuring that all the information on the form, including payment amounts, is accurate. Detailed instructions for completing FCC Form 159 for Auction 103 will be released by the Office concurrently with the release of this Public Notice.

1. Making Upfront Payments by Wire Transfer for Auction 103

127. Congress recently passed legislation amending the Communications Act to provide that upfront auction payments for future auctions are to be deposited in the U.S. Treasury. Accordingly, upfront payments for Auction 103 must be wired to, and will be deposited in, the U.S. Treasury.

128. Wire transfer payments for Auction 103 must be received before 6:00 p.m. ET on October 22, 2019. No other payment method is acceptable. To avoid untimely payments, applicants should discuss arrangements (including bank closing schedules and other specific bank wire transfer requirements, such as an in-person written request before a specified time of day) with their bankers several days before they plan to make the wire transfer, and must allow sufficient time for the transfer to be initiated and completed before the deadline. The following information will be needed:

266 47 CFR § 1.2105(b); see also Two Way Radio, 14 FCC Rcd at 12039, para. 8.

267 In no event, however, will the Commission send auction registration materials to anyone other than the contact person listed on the applicant’s FCC Form 175 or respond to a request for replacement registration materials from anyone other than the authorized bidder, contact person, or certifying official listed on the applicant’s FCC Form 175. See infra Section III.G (Auction Registration).


269 See infra Section III.F.3 (Upfront Payments and Bidding Eligibility).

270 An applicant must initiate the wire transfer through its bank, authorizing the bank to wire funds from the applicant’s account to the proper account at the U.S. Treasury.

271 The Commission will not accept checks, credit cards, or automated clearing house (ACH) payments.
ABA Routing Number: 021030004
Receiving Bank: TREAS NYC
33 Liberty Street
New York, NY 10045

BENEFICIARY: FCC
445 12th Street, SW
Washington, DC 20554

ACCOUNT NUMBER: 827000010001

Originating Bank Information (OBI Field): (Skip one space between each information item)
“AUCTIONPAY”
APPLICANT FCC REGISTRATION NUMBER (FRN): (same as FCC Form 159, block 21)
PAYMENT TYPE CODE: (same as FCC Form 159, block 24A: “U103”)

NOTE: The beneficiary account number (BNF Account Number) is specific to the upfront payments for Auction 103. Do not use a BNF Account Number from a previous auction.

129. At least one hour before placing the order for the wire transfer (but on the same business day), applicants must print and fax a completed FCC Form 159 (Revised 2/03) to the FCC at (202) 418-2843. Alternatively, the completed form can be scanned and sent as an attachment to an email to RROGWires@fcc.gov. On the fax cover sheet or in the email subject header, write “Wire Transfer – Auction Payment for Auction 103”. To meet the upfront payment deadline, an applicant’s payment must be credited to the Commission’s account for Auction 103 before the deadline.272

130. Each applicant is responsible for ensuring timely submission of its upfront payment and for timely filing of an accurate and complete FCC Form 159. An applicant should coordinate with its financial institution well ahead of the due date regarding its wire transfer and allow sufficient time for the transfer to be initiated and completed prior to the deadline. The Commission repeatedly has cautioned auction participants about the importance of planning ahead to prepare for unforeseen last-minute difficulties in making payments by wire transfer.273 Each applicant also is responsible for obtaining confirmation from its financial institution that its wire transfer to the U.S. Treasury was successful and from Commission staff that its upfront payment was timely received and that it was deposited into the proper account. To receive confirmation from Commission staff, contact Scott Radcliffe of the Office of Managing Director’s Revenue & Receivables Operations Group/Auctions at (202) 418-7518, Theresa Meeks at (202) 418-2945, or Gail Glasser at (202) 418-0578.

131. Please note the following information regarding upfront payments:

- All payments must be made in U.S. dollars.
- All payments must be made by wire transfer.
- Upfront payments for Auction 103 go to an account number different from the accounts used in previous FCC auctions.

132. Failure to deliver a sufficient upfront payment as instructed herein by the upfront payment deadline will result in dismissal of the short-form application and disqualification from participation in the auction.


2. Completing and Submitting FCC Form 159

133. The following information supplements the standard instructions for FCC Form 159 (Revised 2/03) and is provided to help ensure correct completion of FCC Form 159 for upfront payments for Auction 103. Applicants need to complete FCC Form 159 carefully, because:

- Mistakes may affect bidding eligibility; and
- Lack of consistency between information provided in FCC Form 159 (Revised 2/03), FCC Form 175, long-form application, and correspondence about an application may cause processing delays.

134. Therefore, appropriate cross-references between the FCC Form 159 Remittance Advice and the short-form application (FCC Form 175) are described below.

<table>
<thead>
<tr>
<th>Block Number</th>
<th>Required Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LOCKBOX # - Leave Blank</td>
</tr>
<tr>
<td>2</td>
<td>Payer Name - Enter the name of the person or company making the payment. If the applicant itself is the payer, this entry would be the same name as in FCC Form 175.</td>
</tr>
<tr>
<td>3</td>
<td>Total Amount Paid - Enter the amount of the upfront payment associated with the FCC Form 159 (Revised 2/03).</td>
</tr>
<tr>
<td>4-8</td>
<td>Street Address, City, State, ZIP Code - Enter the street mailing address (not Post Office box number) where mail should be sent to the payer. If the applicant is the payer, these entries would be the same as FCC Form 175 from the Applicant Information section.</td>
</tr>
<tr>
<td>9</td>
<td>Daytime Telephone Number - Enter the telephone number of a person knowledgeable about this upfront payment.</td>
</tr>
<tr>
<td>10</td>
<td>Country Code - For addresses outside the United States, enter the appropriate postal country code (available from the Mailing Requirements Department of the U.S. Postal Service).</td>
</tr>
<tr>
<td>11</td>
<td>Payer FRN - Enter the payer’s 10-digit FCC Registration Number (FRN) registered in the Commission Registration System ( CORES).</td>
</tr>
<tr>
<td>21</td>
<td>Applicant FRN (Complete only if applicant is different than payer) – Enter the applicant’s 10-digit FRN registered in CORES.</td>
</tr>
<tr>
<td>24A</td>
<td>Payment Type Code - Enter “U103”.</td>
</tr>
<tr>
<td>25A</td>
<td>Quantity - Enter the number “1”.</td>
</tr>
<tr>
<td>26A</td>
<td>Fee Due - Amount of Upfront Payment</td>
</tr>
<tr>
<td>27A</td>
<td>Total Fee - Will be the same amount as 26A.</td>
</tr>
<tr>
<td>28A</td>
<td>FCC Code 1 - Enter the number “103” (indicating Auction 103).</td>
</tr>
</tbody>
</table>

NOTES:

- Do not use Remittance Advice (Continuation Sheet), FCC Form 159-C, for upfront payments.
- If applicant is different from the payer, complete blocks 13 through 21 for the applicant, using the same information shown on FCC Form 175. Otherwise leave them blank.
• Since credit card payments will not be accepted for upfront payments for an auction, leave Section E blank.

3. Upfront Payments and Bidding Eligibility

135. The Commission has authority to determine appropriate upfront payments for each license being auctioned, taking into account such factors as the efficiency of the auction process and the potential value of similar licenses. An upfront payment is a refundable deposit made by each applicant seeking to participate in bidding to establish its eligibility to bid on licenses. Upfront payments that are related to the inventory of licenses being auctioned protect against frivolous or insincere bidding and provide the Commission with a source of funds from which to collect payments owed at the close of bidding.

136. Applicants that are former defaulters, as described above, must pay upfront payments 50% greater than non-former defaulters. For purposes of this classification as a former defaulter or a former delinquent, defaults and delinquencies of the applicant itself and its controlling interests are included.

137. An applicant must make an upfront payment sufficient to obtain bidding eligibility on the generic blocks on which it will bid. We adopt our proposal that we will set upfront payments based on MHz-pops, and that the amount of the upfront payment submitted by an applicant will determine its initial bidding eligibility, the maximum number of bidding units on which a bidder may place bids in any single round. In order to bid for a block, qualified bidders must have a current eligibility level that meets or exceeds the number of bidding units assigned to that generic block in a PEA. At a minimum, therefore, an applicant’s total upfront payment must be enough to establish eligibility to bid on at least one block in one of the PEAs selected on its FCC Form 175 for Auction 103, or else the applicant will not be eligible to participate in the auction. The total upfront payment does not affect the total dollar amount the bidder may bid.

138. In the Auction 103 Comment Public Notice, we proposed upfront payments for a generic block in a PEA based on $0.001 per weighted MHz-pop for PEAs 1–50, $0.0002 per weighted MHz-pop for PEAs 51–100, and $0.0001 per weighted MHz-pop in other PEAs and sought comment on this proposal. We received comments arguing that the proposed upfront payments should be reduced. Verizon also argues that the upfront payment amounts should be calculated based on MHz-pops and not weighted MHz-pops. We adopt Verizon’s proposal, in part, to reduce upfront payments to one-fourth


276 See Part 1 Fifth Report and Order, 15 FCC Rcd at 15316-18, paras. 40-43; 47 CFR § 1.2106(a); supra Section II.I (Provisions Regarding Former and Current Defaulters).

277 For this purpose, the term “controlling interest” is defined in 47 CFR § 1.2105(a)(4)(i).

278 See Auction 103 Comment Public Notice at 14, para. 53.

279 Id.

280 In particular, Verizon argues that the proposed upfront payment amounts are relatively high and should be lowered to one-fourth of the proposed amounts—or, in the alternative, reduced for 39 GHz incumbent licensees. See Verizon Comments at 2-5; Verizon Reply at 7. T-Mobile favors reducing upfront payment amounts for the 47 GHz band but asserts that they do not need to be reduced for the 37 GHz and 39 GHz bands. See T-Mobile Comments at 2, 8-10; T-Mobile Reply at 3-5; cf. AT&T Reply at 3-4 (arguing that upfront payments for 47 GHz band should be reduced).

281 See Verizon Comments at 3.
of the proposed amounts, and we do so for all three bands. This may, as Verizon alleges, encourage more bidders to participate in the auction. We decline, however, to calculate upfront payment amounts based on MHz-pops instead of weighted MHz-pops, and we adopt our proposal to use weighted MHz-pops. Bidding units, which are used for the eligibility and activity rules explained below, are tied to upfront payments, which are based on weighted MHz-pops, and therefore reflect the relative prices of PEAs in recent auctions.

Accordingly, we adopt upfront payments for a generic block in a PEA based on $0.00025 per weighted MHz-pop for PEAs 1–50, $0.00005 per weighted MHz-pop for PEAs 51–100, and $0.000025 per weighted MHz-pop in other PEAs, with a minimum upfront payment amount of $250 per generic block in a PEA. The upfront payment amount per block in each PEA is set forth in Attachment A of this Public Notice. The upfront payment amounts are approximately one-fourth the minimum opening bid amounts, described in Section IV.B.3.a, below.

In the Auction 103 Comment Public Notice, we proposed to assign each generic block in a PEA a specific number of bidding units, equal to one bidding unit per $10 of the upfront payment. We adopt our proposal. The number of bidding units for a given license or generic block in a PEA is fixed and does not change during an auction as prices change. Thus, in calculating its upfront payment amount, an applicant should determine the maximum number of bidding units on which it may wish to bid in any single round, and submit an upfront payment amount for the auction covering that number of bidding units. In order to make this calculation, an applicant should add together the bidding units for the number of blocks in PEAs on which it seeks to be active in any given round. Applicants should check their calculations carefully, as there is no provision for increasing a bidder’s eligibility after the upfront payment deadline.

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282 See id. at 2.

283 See Updated Reconfiguration Procedures Public Notice at 6-8, paras. 11-16.

284 The results of these calculations will be rounded using the Commission’s standard rounding procedures for auctions: results above $10,000 are rounded to the nearest $1,000; results below $10,000 but above $1,000 are rounded to the nearest $100; and results below $1,000 are rounded to the nearest $10. Additionally, the upfront payment amount for Gulf of Mexico blocks is $250.

285 See Auction 103 Comment Public Notice at 13, para. 52.

286 In some cases, a qualified bidder’s maximum eligibility may be less than the amount of its upfront payment because the qualified bidder has either previously been in default on a Commission construction permit or license or delinquent on non-tax debt owed to a Federal agency, see 47 CFR § 1.2106(a), or has submitted an upfront payment that exceeds the total amount of bidding units associated with the licenses or license areas it selected on its FCC Form 175.
**Table 1: Upfront Payments, Bidding Eligibility, and Bidding Flexibility Example**

<table>
<thead>
<tr>
<th>PEA</th>
<th>Bidding Units</th>
<th>Upfront Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilmington, NC</td>
<td>130</td>
<td>$1,300</td>
</tr>
<tr>
<td>Myrtle Beach, SC</td>
<td>77</td>
<td>$770</td>
</tr>
</tbody>
</table>

If a bidder wishes to bid on one block in both of the above PEAs in a round, it must have selected both PEAs on its FCC Form 175 and purchased at least 207 bidding units (130 + 77) of bidding eligibility. If a bidder only wishes to bid on a block in one, but not both, purchasing 130 bidding units would meet the eligibility requirement for a block in either PEA. The bidder would be able to bid on a block in either PEA, but not both at the same time. If the bidder purchased only 77 bidding units, the bidder would have enough eligibility to bid for a block in Myrtle Beach but not for one in Wilmington.

141. If an applicant is a former defaulter, it must calculate its upfront payment for all of its selected generic blocks in PEAs by multiplying the number of bidding units on which it wishes to be active by 1.5.\(^{287}\) In order to calculate the number of bidding units to assign to former defaulters, the Commission will divide the upfront payment received by 1.5 and round the result up to the nearest bidding unit.\(^{288}\)

**G. Auction Registration**

142. All qualified bidders for Auction 103 are automatically registered for the auction. Registration materials will be distributed prior to the auction by overnight delivery. The mailing will be sent only to the contact person at the contact address listed in the FCC Form 175 and will include the SecurID® tokens that will be required to place bids and the Auction Bidder Line phone number.

143. Qualified bidders that do not receive this registration mailing will not be able to submit bids. Therefore, any qualified bidder for Auction 103 that has not received this mailing by noon on November 27, 2019, should call the Auctions Hotline at (717) 338-2868. Receipt of this registration mailing is critical to participating in the auction, and each applicant is responsible for ensuring it has received all the registration materials.

144. In the event that SecurID® tokens are lost or damaged, only a person who has been designated as an authorized bidder, the contact person, or the certifying official on the applicant’s short-form application may request replacements. To request replacement of these items, call the Auction Bidder Line at the telephone number provided in the registration materials or the Auction Hotline at (717) 338-2868.

**H. Remote Electronic Bidding via the FCC Auction Bidding System**

145. Bidders will be able to participate in Auction 103 over the Internet using the FCC Auction Bidding System (bidding system). Only qualified bidders are permitted to bid. Each authorized bidder must have his or her own SecurID® token, which the Commission will provide at no charge. Each

\(^{287}\) Id.

\(^{288}\) If a former defaulter fails to submit a sufficient upfront payment to establish eligibility to bid on at least one generic block in a PEA, the applicant will not be eligible to participate in Auction 103. Implementation of Section 309(j) of the Communications Act – Competitive Bidding for Commercial Broadcast and Instructional Television Fixed Service Licenses et al., 13 FCC Rcd 15920, 15979-80, para. 153 (1998). The applicant, however, will retain its status as an applicant in Auction 103 and will remain subject to 47 CFR § 1.2105(c). See Star Wireless, LLC, Forfeiture Order, 19 FCC Rcd 18626, 18628, para. 4 & n.19 (EB 2004), granted in part sub nom. Star Wireless, LLC and Northeast Communications of Wisconsin, Inc., Order on Review, 22 FCC Rcd 8943 (2007), petition for review denied, Star Wireless, LLC v. FCC, 522 F.3d 469 (D.C. Cir. 2008).
applicant with one authorized bidder will be issued two SecurID® tokens, while applicants with two or three authorized bidders will be issued three tokens. A bidder cannot bid without his or her SecurID tokens. **For security purposes, the SecurID® tokens and a telephone number for bidding questions are only mailed to the contact person at the contact address listed on the FCC Form 175.** Each SecurID® token is tailored to a specific auction. SecurID® tokens issued for other auctions or obtained from a source other than the FCC will not work for Auction 103. Please note that the SecurID® tokens can be recycled, and the Commission encourages bidders to return the tokens to the FCC. Pre-addressed envelopes will be provided to return the tokens once the auction has ended.

146. The Commission makes no warranties whatsoever, and shall not be deemed to have made any warranties, with respect to the bidding system, including any implied warranties of merchantability or fitness for a particular purpose. In no event shall the Commission, or any of its officers, employees, or agents, be liable for any damages whatsoever (including, but not limited to, loss of business profits, business interruption, loss of use, revenue, or business information, or any other direct, indirect, or consequential damages) arising out of or relating to the existence, furnishing, functioning, or use of the bidding system. Moreover, no obligation or liability will arise out of the Commission’s technical, programming, or other advice or service provided in connection with the bidding system.

147. To the extent an issue arises with the bidding system itself, the Commission will take all appropriate measures to resolve such issues quickly and equitably. Should an issue arise that is outside the bidding system or attributable to a bidder, including, but not limited to, a bidder’s hardware, software, or Internet access problem that prevents the bidder from submitting a bid prior to the end of a round, the Commission shall have no obligation to resolve or remediate such an issue on behalf of the bidder. Similarly, if an issue arises due to bidder error using the bidding system, the Commission shall have no obligation to resolve or remediate such an issue on behalf of the bidder. Accordingly, after the close of a bidding round, the results of bid processing will not be altered absent evidence of any failure in the bidding system.

I. Mock Auction

148. All qualified bidders will be eligible to participate in a mock auction for the clock phase, which will begin during the week of December 2, 2019. The mock auction will enable qualified bidders to become familiar with the bidding system and to practice submitting bids prior to the auction. We recommend that all qualified bidders, including all their authorized bidders, participate to assure that they can log in to the bidding system and gain experience with the bidding procedures. Participating in the mock auction may reduce the likelihood of a bidder making a mistake during the auction. Details regarding the mock auction will be announced in the Qualified Bidders Public Notice for Auction 103.

149. After the clock phase of the auction concludes, a separate mock auction for the assignment phase will be held for those qualified bidders that won generic blocks in the clock phase.

J. Fraud Alert

150. As is the case with many business investment opportunities, some unscrupulous entrepreneurs may attempt to use Auction 103 to deceive and defraud unsuspecting investors. Common warning signals of fraud include the following:

- The first contact is a “cold call” from a telemarketer or is made in response to an inquiry prompted by a radio or television infomercial.

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289 Only those bidders that are qualified to participate in Auction 103 will be eligible to participate in the mock auction.
• The offering materials used to invest in the venture appear to be targeted at IRA funds, for example, by including all documents and papers needed for the transfer of funds maintained in IRA accounts.

• The amount of investment is less than $25,000.

• The sales representative makes verbal representations that (a) the Internal Revenue Service, Federal Trade Commission (FTC), Securities and Exchange Commission (SEC), FCC, or other government agency has approved the investment; (b) the investment is not subject to state or federal securities laws; or (c) the investment will yield unrealistically high short-term profits. In addition, the offering materials often include copies of actual FCC releases, or quotes from FCC personnel, giving the appearance of FCC knowledge or approval of the solicitation.

151. Information about deceptive telemarketing investment schemes is available from the FCC as well as the FTC and SEC. Additional sources of information for potential bidders and investors may be obtained from the following sources:

• the FCC’s Consumer Call Center at (888) 225-5322 or by visiting www.fcc.gov/general/frauds-scams-and-alerts-guides

• the FTC at (877) FTC-HELP ((877) 382-4357) or by visiting www.consumer.ftc.gov/articles/0238-investment-risks

• the SEC at (202) 942-7040 or by visiting https://www.sec.gov/investor

152. Complaints about specific deceptive telemarketing investment schemes should be directed to the FTC, the SEC, or the National Fraud Information Center at (202) 835-0618.

IV. BIDDING IN AUCTION 103

A. Auction Structure

1. Clock and Assignment Phases

153. We will conduct Auction 103 using an ascending clock auction design with two phases. In the first phase of the auction—the clock phase—bidders will indicate their demands for a number of generic license blocks in specific categories and geographic areas (i.e., PEAs). In the second phase—the assignment phase—winning clock-phase bidders will have the opportunity to bid for their preferred combinations of frequency-specific licenses, consistent with their clock-phase winnings, in a series of single sealed-bid rounds conducted by PEA or, in some cases, PEA group.

154. We direct the Office, in conjunction with the Bureau, to prepare and release, concurrent with this Public Notice, updated technical guides that provide the mathematical details of the adopted auction design and algorithms for the clock and assignment phases of Auction 103. The information in the updated technical guides, which are available in the Education section of the Auction 103 website (www.fcc.gov/auction/103), supplements our decisions in this Public Notice.291


291 The Auction 103 Clock Phase Technical Guide details the adopted procedures for the clock phase of Auction 103. The Auction 103 Assignment Phase Technical Guide details the adopted procedures for the assignment phase.
2. Generic Blocks and Bidding Categories

155. As proposed, in the clock phase, we will conduct bidding for two categories of generic blocks in all PEAs. The first category will consist of the available blocks in 37.6–40 GHz. This category, designated Category M/N, will comprise a total of 24 blocks: 10 in the Upper 37 GHz band (Blocks M1–M10) and 14 in the 39 GHz band (Blocks N1–N14). Fewer generic blocks may be available in Category M/N in some PEAs depending on whether incumbents submit Initial Commitment(s) to accept modified licenses for full or partial PEAs (Option 1 or Option 2). A second category, Category P, will consist of the 10 blocks in 47.2–48.2 GHz (Blocks P1–P10). The final auction inventory will be announced on August 23, 2019, after the deadline for submitting Initial Commitments. Bidding in the auction will determine a single final clock phase price for the generic blocks in each category in each PEA.

156. In their comments, PVT and WISPA argue that we should treat Category M (Upper 37 GHz) and Category N (39 GHz) blocks as separate bidding products instead of the single Category M/N. They assert these bands are not fungible due to “encumbrance and incumbency issues that may lead bidders to value these bands very differently,” given the requirement in the Upper 37 GHz band to coordinate with Federal operations, with no analogous requirement in the 39 GHz band. WISPA further argues that the Upper 37 GHz band should be treated as a separate category because there is the possibility that the Department of Defense may seek to coordinate use for additional sites in the future. PVT also argues the federal allocation at 39.5-40 GHz makes that portion of the 39 GHz band undesirable. In contrast, Verizon, AT&T, and T-Mobile all oppose treating the M and N blocks as two separate bidding categories.

157. The Commission determined in the Spectrum Frontiers Fourth R&O that it would auction generic blocks in the Upper 37 GHz band together with the 39 GHz band as a single bidding category because these two bands are adjacent and subject to the same service rules and operability.
requirement, and therefore should be considered interchangeable.\footnote{302} Further, as discussed in the \textit{Auction 103 Comment Public Notice}, the 24 blocks in Category M/N represent a continuous swath of spectrum, and including them in a single bidding category should speed up the auction and give bidders greater flexibility to aggregate multiple contiguous spectrum blocks.\footnote{303}

158. We note that coordination zones such as those applicable to the 37 GHz band are not exclusion zones and do not create “encumbered areas” in the same way that exclusive licensed areas do in other bands.\footnote{304} Unlike exclusion zones, licensees are not prohibited from operating in these coordination zones, but they must first coordinate their operations with the Federal users. Further, with respect to the possibility of additional Federal operations in the Upper 37 GHz band, we adopted a process in the \textit{Spectrum Frontiers Fifth R&O} to address the need for greater certainty for bidders.\footnote{305} Finally, with respect to PVT’s argument regarding Federal allocations in 39.5-40 GHz, the Commission concluded in the \textit{2016 Spectrum Frontiers Order} that it is possible for Federal operations to share the band with non-Federal fixed and mobile terrestrial operations without the need for coordination zones,\footnote{306} and we see no reason to treat the 39.5-40 GHz band differently from the remainder of the 39 GHz band.

159. To the extent a bidder prefers specific frequency licenses, the bidder may bid for its preferred blocks in the assignment phase, although a bidder for a generic block cannot be assured that it will be assigned any frequency block. PVT argues that it lacks the resources “to submit large clock and assignment phase bids just to preserve its rights to remain in the 39 GHz [band].”\footnote{307} While we recognize that incumbents relinquishing licenses would need to submit an assignment phase bid if they prefer a specific frequency, we remind incumbents that if they relinquish holdings equivalent to a full block in specific PEAs, they will be credited with an incentive payment that covers the final clock phase price of a full block in the same PEA and thus can continue to bid in the clock phase without concern over needing to submit a “large” clock phase price.\footnote{308}

\begin{footnotes}
\item[300] WISPA Comments at 6.
\item[301] See PVT Comments at 5.
\item[302] Verizon Reply at 2-4; AT&T Reply at 4; T-Mobile Reply at 2. Specifically, AT&T argues that artificial competition could arise between bidders seeking large swaths of spectrum creating a difference in prices between the bands that did not reflect differences in value. AT&T Reply at 4-5. Further, creating separate categories would interfere with the auction’s ability to assign contiguous licenses to winners of multiple blocks in the 37.6-40 GHz range. \textit{Id.}
\item[303] See \textit{Auction 103 Comment Public Notice} at 11, para. 34.
\item[304] For example, the Commission created a separate category (UI) in Auction 102 to auction the remaining 75 megahertz of a 100-megahertz license block out of which an incumbent retained a license for a 25 megahertz portion. \textit{See Wireless Telecommunications Bureau Releases Updated List of Licenses to Be Offered in Auction 102 (24 GHz); Announces Adjustment to the Categories and Number of Generic License Blocks}, Public Notice, 33 FCC Red 8091 (WTB 2018).
\item[305] See \textit{Spectrum Frontiers Fifth R&O} at 7-8, paras. 16-17; \textit{see also} T-Mobile Reply at 2.
\item[307] PVT Comments at 5.
\end{footnotes}
160. Some commenters suggest that under certain circumstances existing incumbents in the 39 GHz band will automatically be assigned spectrum in the 39 GHz band only.\textsuperscript{309} Consistent with our earlier determination to treat the Upper 37 and 39 GHz bands as a single category, we note that frequency block assignments for any licensee—whether an incumbent electing to receive modified licenses or an incumbent relinquishing licenses and participating in this auction—will be made in the assignment phase using the entire 37.6–40 GHz band as a single contiguous swath of spectrum.\textsuperscript{310}

161. Incumbents that do not bid in the auction and instead receive modified licenses may, under certain circumstances, be assigned frequencies not subject to site-specific Federal coordination, however. For incumbents choosing to receive modified licenses instead of bidding in Auction 103, their existing licenses will be modified in accordance with our Section 316 authority.\textsuperscript{311} In its comments, PVT raises concerns about the potential effects on its existing operations if it is reassigned frequencies in the Upper 37 GHz band instead of its existing 39 GHz licenses in PEAs in which there are established Federal coordination zones.\textsuperscript{312} PVT asserts there are the “additional cost and uncertainty of Upper 37 GHz band coordination procedures and [the] possibility of spectrum use limitations.”\textsuperscript{313}

162. We cannot, however, evaluate those claims absent detailed information about individualized circumstances, and we conclude that such claims are better handled in the course of a case-by-case review. To the extent that PVT—or a similarly situated incumbent—can demonstrate that the assignment of frequencies where Federal coordination is required pursuant to the specific coordination sites listed under section 30.205 of the Commission’s rules\textsuperscript{314} would fundamentally change the nature of operations authorized under its license, it may be eligible for a waiver seeking assurance that its modified licenses will be assigned to frequencies not subject to Federal coordination.\textsuperscript{315} We anticipate that granting relief will only be necessary in those circumstances in which the petitioner can provide a specific explanation of why Federal coordination in a particular geographic area would hamper its existing operations in such a way as to effect a fundamental change in the incumbent’s spectrum usage rights.\textsuperscript{316}

(Continued from previous page)

\textsuperscript{308} See Verizon Reply at 3 (arguing that auctions should not accommodate a single potential participant in a single market, and that alternative means to avoid a 37 GHz placement include relinquishing spectrum entirely for payment or participating in the assignment phase); see also T-Mobile Reply at 2-3 (acknowledging that licensees concerned about retaining their particular spectrum at 39 GHz or desiring not to be in spectrum designated for future federal use or near protected federal locations may bid on specific channels in the assignment phase).

\textsuperscript{309} See PVT Comments at 5 (“Faced with [the] situation [of Upper 37 GHz and 39 GHz spectrum being offered as a single category], PVT understands it could choose not to participate in the incentive auction, and to instead accept modified licenses based on a reconfiguration of its holdings proposed by the Commission.”); WISPA Comments at 6 (“Incumbent 39 GHz licensees who participate in the auction are also likely to place far greater value on obtaining contiguous blocks in the 39 GHz band to extend their holdings than on non-contiguous blocks in the Upper 37 GHz band.” (emphasis added)); T-Mobile Reply at 3 (“[T]he Commission could clarify pre-auction where in the band (e.g., the upper end of the 39 GHz band) it intends to relocate incumbent 39 GHz licensees that accept modified licenses.”).

\textsuperscript{310} See Verizon Reply at 3 (explaining that WISPA’s claim “ignores the Commission’s reconfiguration procedures for the 39 GHz band,” which do not permit incumbents bidding in the auction to retain their existing 39 GHz holdings and acquire additional [contiguous 39 GHz] spectrum at auction; instead, Verizon explains, incumbents “can get the contiguous spectrum they desire throughout the entire [Upper] 37/39 GHz band if the Commission proceeds with its plan to have a single category”).

\textsuperscript{311} 47 U.S.C. § 316; see Spectrum Frontiers Fourth R&O, 33 FCC Rcd at 12171-72, para. 9.

\textsuperscript{312} PVT Comments at 2-4, 5; see 47 CFR § 30.205. Although PVT makes these arguments in conjunction with its request for two bidding categories, we infer that PVT would have the same concerns about being assigned these frequencies for modified licenses.

\textsuperscript{313} PVT Comments at 4.

\textsuperscript{314} Pursuant to section 30.205 of the Commission’s rules, licensees operating in 37–38.6 GHz located within specified zones defined by the coordinates provided must coordinate their operations with the Department of
Conclusory assertions that an incumbent will be harmed by frequency assignments in the PEAs in which coordination zones exist will not be sufficient.

163. We direct the Bureau to address any such waiver petitions expeditiously to ensure the auction process can move forward. To facilitate expedient action by the Bureau, incumbents seeking this type of waiver must file a request no later than 11:59 pm ET on August 16, 2019, the day after the Initial Commitment deadline, by submitting the request—along with a request for confidential treatment—via email to 39ghzreconfiguration@fcc.gov.

3. Incentive Payments

164. The final clock phase price for a generic license block in Category M/N in a given PEA will determine the incentive payment associated with 100 megahertz of relinquished spectrum rights in that PEA, as determined in the Spectrum Frontiers Fourth R&O. Further, an incumbent that relinquishes a partial license will be entitled to an incentive payment equal to the final clock phase price for a Category M/N block times the fraction of its relinquished rights, measured in weighted MHz-pops, relative to the full number of weighted MHz-pops in the PEA.

165. An incumbent that both relinquishes holdings equivalent to a full block of spectrum rights in Category M/N in a PEA and wins a generic block in the category in the same PEA will, in effect, receive an incentive payment credit equal to the final clock phase price and incur an obligation in the same amount, for a net clock phase payment of zero. If an incumbent chooses to bid for specific frequencies in the assignment phase, the incumbent will be obligated for any additional payment.

166. As determined in the Spectrum Frontiers Fourth R&O, an incumbent that is eligible for bidding credits and that both relinquishes spectrum and bids for new licenses will receive a bidding credit

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Defense via the NTIA. In contrast, licensees operating only in 37–38.0 GHz must coordinate their operations with Federal Space Research Service (space to Earth) users of the band via the NTIA. See 47 CFR § 30.205.

315 See 47 CFR §§ 1.3, 1.925. We expect to give favorable consideration to waiver requests only to incumbents electing to receive modified licenses in lieu of relinquishing licenses and bidding in the auction. Incumbents relinquishing licenses and bidding on new licenses in the auction are in a different position, as they are participating voluntarily in an auction process subject to the procedures described herein, which among other things allow them to express their preferences for particular frequencies by bidding in the assignment phase. See Spectrum Frontiers Fourth R&O, 33 FCC Rcd at 12185, para. 58.

316 Generally, the Commission may waive its rules for good cause shown. See 47 CFR § 1.3. The Commission may exercise its discretion to waive a rule where the particular facts make strict compliance inconsistent with the public interest. See Northeast Cellular Telephone Co. v. FCC, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (Northeast Cellular). In addition, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis. See WAIT Radio v. FCC, 418 F.2d 1153, 1159 (D.C. Cir. 1969); Northeast Cellular, 897 F.2d at 1166. Waiver of the Commission’s rules is therefore appropriate only if special circumstances warrant a deviation from the general rule, and such deviation will serve the public interest.

317 This could include, for example, resolving these waiver petitions in advance of the auction, and informing in advance of the upfront payment deadline any applicant that selected a PEA affected by a waiver about the number of blocks in specific frequency ranges in the specific PEA that are not available for assignment in the assignment phase.

318 See 47 CFR § 0.459(b). Any incumbent 39 GHz licensee listed in an FCC Form 175-A will be considered an applicant in Auction 103 for purposes of the prohibited communications rule. See Initial Reconfiguration Procedures Public Notice, 34 FCC Rcd at 1402-04, paras. 53-57. An incumbent’s waiver request—which we (continued….)
discount only on its net cash payment for new licenses.\textsuperscript{320}

4. Net Revenue Requirement

167. To determine whether the net revenue requirement required by the Spectrum Frontiers Fourth R&O has been met at the end of a round of bidding, we adopt our proposal to consider bids on licenses in the Upper 37 GHz, 39 GHz, and 47 GHz bands in determining whether net revenues are sufficient to cover incentive payments to incumbents.\textsuperscript{321} Also as proposed, we will consider only clock phase bids, net of an estimate of bidding credit discounts, in determining whether the requirement is met.\textsuperscript{322} We will make available to bidders an estimate of the current shortfall for meeting the net revenue requirement, updated after each round of bidding, until the requirement is met. We will indicate whether the requirement has been met on the Public Reporting System (PRS).

168. Verizon and T-Mobile urge us also to consider assignment phase revenues in order to increase the likelihood net revenue is sufficient to cover incentive payments to incumbents.\textsuperscript{323} We maintain our proposed approach, however, for the reasons stated in the Auction 103 Comment Public Notice.\textsuperscript{324} Proceeds in the assignment phase are expected to be a small fraction of overall proceeds, so it is unlikely that they will make the difference between meeting the requirement and not meeting it. In Auctions 1002 and 102, assignment phase gross proceeds comprised only 0.69% and 1.75%, respectively, of total gross proceeds.\textsuperscript{325} Further, the time required to conduct assignment phase bidding for all 416 PEs is significant,\textsuperscript{326} even if, as commenters point out, it is less than the time that would be spent on a subsequent proceeding.\textsuperscript{327} Moreover, bidders will be advised during the clock phase of the amount of any shortfall and will be able to take that information into account in their bidding in order to ensure that the auction meets the requirement. In the assignment phase, however, bidders have less ability to affect auction revenues because assignment phase payments are calculated using a second-price rule.\textsuperscript{328}

169. As proposed, the revenue estimate that the bidding system considers and the shortfall figure we make available before the net revenue requirement has been met will be conservative

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estimates. It will not be known whether the clock phase winners will be designated entities that can claim a bidding credit until the clock phase bidding has ended. Consequently, the revenue estimate that is used to calculate the shortfall for rounds before the net revenue requirement has been met will assume, for a category in a PEA with excess demand, that blocks are won by the bidders with the highest bidding credit percentages, to the extent that designated entities are among the bidders still demanding blocks in the category in the PEA. This includes a check to consider bidding credit caps. In so doing, we avoid a potential situation whereby the net revenue requirement appears to be met, but then actual net revenues are insufficient to cover incentive payments when bidding credits are considered. If the net revenue requirement has not been met after a round, the estimated shortfall will be calculated as the incentive payments across all incumbents after the round minus the revenue estimate (described above) across all categories and PEAs, rounded up to the nearest $1 million.

170. If the net revenue requirement has been satisfied at the time that the clock phase bidding stops for both categories of blocks, the bidding system will determine the winning bidders of generic blocks, and the auction will proceed to the assignment phase. If the net revenue requirement has not been satisfied at the time bidding stops in the clock phase, the auction will end, and no new licenses will be assigned. Incumbents in the 39 GHz band will retain their original licenses pending further decisions by the Commission.

5. FCC Auction Bidding System

171. As is standard practice for FCC auctions, we will conduct Auction 103 over the Internet using the bidding system. In addition, bidders will have the option of placing bids by telephone through a dedicated auction bidder line. There will be no on-site bidding during Auction 103. Please note that telephonic bid assistants are required to use a script when entering bids placed by telephone. Telephonic bidders are therefore reminded to allow sufficient time to bid by placing their calls well in advance of the close of a round. The length of a call to place a telephonic bid may vary; please allow a minimum of ten minutes. The toll-free telephone number for the auction bidder line will be provided to qualified bidders prior to the start of bidding in the auction.

172. In order to access the bidding function of the bidding system, bidders must be logged in during the bidding round using the passcode generated by the SecurID® token and a personal identification number (PIN) created by the bidder. Bidders are strongly encouraged to print a bid summary for each round after they have completed all their activity for that round.

173. An Auction 103 bidder’s ability to bid on generic license blocks in specific PEAs is determined by two factors: (1) the PEA(s) selected on the bidder’s FCC Form 175 and (2) the bidder’s eligibility. The bid submission screens will allow bidders to submit bids only on blocks in the PEA(s) the bidder selected on its FCC Form 175.

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174. In the first round of the clock phase, an eligible bidder will indicate how many blocks in a bidding category in a PEA it demands at the minimum opening bid price. The bidding system will not accept bids lower than these amounts. In each subsequent round, an eligible bidder will be able to express its demand for blocks in a category in a specific PEA at the clock price or at a price between the previous round’s price and the new clock price. In addition to the bidding interface screens, the bidding system also includes an upload function that allows bid files in the CSV format to be uploaded.

175. During each round of the clock phase, a bidder may also remove bids placed in the current bidding round. If a bidder modifies its bids for blocks in a category in a PEA in a round, the system takes the last bid submission as that bidder’s bid (or bids, since a bidder may submit bids for the same category in a PEA at multiple price points) for the round.

176. After the clock phase concludes but before bidding begins in the assignment phase, the bidding system will provide to each clock phase winner a menu of assignment phase bidding options consisting of possible configurations of frequency-specific licenses on which it can bid in each category in each PEA in which it holds winning clock phase bids. A bidder can assign a price using a sealed bid to one or more possible frequency assignment options for which it wishes to express a preference, consistent with its winning bids for generic blocks in the clock phase. Bidding in the assignment phase is voluntary for clock phase winners. Incumbents that submit an Initial Commitment to accept modified licenses (by selecting Options 1 or 2 in the Initial Commitment System) will have frequencies assigned in the assignment phase but will not be eligible to bid for frequency assignment options.

6. Stopping Rule

177. As proposed, we adopt a simultaneous stopping rule for the clock phase of Auction 103, under which all categories of blocks in all PEAs will remain available for bidding until the bidding stops on every category in every PEA. Specifically, the clock phase of bidding will close for all categories of blocks in all PEAs after the first round in which there is no excess demand in any category in any PEA. Bidding will remain open on all categories of licenses in all PEAs until bidding stops on every category. Consequently, it is not possible to determine in advance how long the bidding in Auction 103 will last.

178. The assignment phase of Auction 103 will close after frequency-specific licenses in all PEAs have been assigned.

7. Availability of Bidding Information

179. We will make public after each round of the clock phase of Auction 103, for each category of blocks in each PEA: the supply; the aggregate demand; the posted price of the last completed...
round. The posted price of the previous round is, generally: the opening price if supply exceeds demand; the clock price of the previous round if demand exceeds supply; or the price at which a reduction caused demand to equal supply. See the *Auction 103 Clock Phase Technical Guide*, section 3.4 for more details.

340 *See Auction 103 Comment Public Notice at 8, para. 19; see also supra Section II.F (Information Procedures During the Auction Process).*

341 *See supra* paragraph 38 & note 85.

342 *See infra* Section IV.C.2 (Acceptable Bids and Bid Processing).

343 *See 47 CFR § 1.2104(i).*
elect to resume the auction starting from the beginning of the current round or from some previous round, or cancel the auction in its entirety. We emphasize that the Office and Bureau will exercise this authority at their discretion.

**B. Clock Phase Bid Collection and Bid Processing Procedures**

1. **Round Structure**

185. As proposed, the clock phase of Auction 103 will consist of a series of rounds, with bidding conducted simultaneously for all spectrum blocks available in the auction.\(^{344}\) During the clock phase, the bidding system will announce clock prices for blocks in each category in each geographic area, and qualified bidders will submit quantity bids for the number of blocks they seek. Bidding rounds will be open for predetermined periods of time, during which bidders will indicate their demands for blocks at the prices associated with the current round. The round’s clock price is the highest price associated with the round. The lowest price associated with a round is the posted price of the previous round. As in SMR auctions, bidders will be subject to activity and eligibility rules that govern the pace at which they participate in the auction.

186. Under our adopted approach, in each geographic area, the clock price for a category of generic blocks will increase from round to round if bidders indicate aggregate demand that exceeds the number of blocks available in the category.\(^{345}\) The clock rounds will continue until, for all categories of blocks in all geographic areas, the number of blocks demanded does not exceed the supply of available blocks. At that point, those bidders indicating demand in a category in a PEA at the final clock phase price will be deemed winning bidders.

187. The initial bidding schedule will be announced in a public notice to be released at least one week before the start of bidding.\(^{346}\) We also adopt the proposal that the bidding schedule may be changed in order to foster an auction pace that reasonably balances speed with the bidders’ need to study round results and adjust their bidding strategies.\(^{347}\) Such changes may include the amount of time for bidding rounds, the amount of time between rounds, or the number of rounds per day, depending upon bidding activity and other factors.\(^{348}\) As we typically do, we will announce any such changes to the bidding schedule several rounds before the change occurs.

2. **Eligibility and Activity Rule**

188. We adopt the proposal that bidders be required to maintain a minimum, high level of activity in each clock round in order to maintain bidding eligibility, which will help ensure that the auction moves quickly and promote a sound price discovery process.\(^{349}\) We will set the activity requirement between 90% and 100% of a bidder’s bidding eligibility in all clock rounds, as proposed.\(^{350}\)

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\(^{344}\) *See Auction 103 Comment Public Notice* at 10, para. 29.

\(^{345}\) *Id.* at 10, para. 30.

\(^{346}\) *Id.* at 11, para. 41.

\(^{347}\) *Id.* at 11, para. 43. WISPA requests that we primarily use schedule changes, rather than increases in the clock price increment percentage, to manage the pace of the auction. *See WISPA Comments* at 7. We recognize that increasing the number of rounds per day is a useful tool for accelerating the auction, but we will consider the specific circumstances of the bidding when determining whether to increase the increment percentage, accelerate the round schedule, or both. During the auction, bidders are welcome to submit feedback to Commission staff regarding the auction pace through the bidding system.

\(^{348}\) *Auction 103 Comment Public Notice* at 11, para. 43.

\(^{349}\) *Id.* at 15, para. 58.

\(^{350}\) *Id.*
Further, we will set the initial activity requirement at 95%. Failure to maintain the requisite activity level will result in a reduction in the bidder’s eligibility, possibly curtailing or eliminating the bidder’s ability to place additional bids in the auction.

189. We will use upfront payments to determine initial (maximum) eligibility in terms of bidding units. Each spectrum block in a PEA will be assigned a specific number of bidding units based on the number of weighted MHz-pops in the PEA. To facilitate bidding across license categories, each block available in a PEA will have the same number of bidding units. Therefore, a bidder’s upfront payment will determine the maximum number of blocks as measured by their associated bidding units that a bidder can demand at the start of the auction.

190. The activity rule will be satisfied when a bidder has bidding activity on blocks with bidding units that total at least the activity requirement (set between 90 and 100%) of its eligibility in the round. If the activity rule is met, then the bidder’s eligibility will not change in the next round. Bidding eligibility will be reduced as the auction progresses if a bidder does not meet the activity requirement.

191. For this clock auction, a bidder’s activity in a round for purposes of the activity rule will be the sum of the bidding units associated with the bidder’s processed demands, which may not be equal to its submitted demands. For instance, if a bidder requests a reduction in the quantity of blocks it demands in a category, but the bidding system does not accept the request because demand for the category would fall below the available supply, the bidder’s activity will reflect its unreduced demand.

192. In this clock auction, bidders are required to indicate their demands in every round, even if their demands at the new round’s prices are unchanged from the previous round. Missing bids—bids that are not reconfirmed—are treated by the bidding system as requests to reduce to a quantity of zero blocks for the category. If these requests are applied, or applied partially, a bidder’s bidding activity, and hence its bidding eligibility for the next round, will be reduced.

193. T-Mobile urges us “to treat missing bids as bids for the previous round’s processed demand at the new round’s clock price rather than reduce the bidder’s demand to zero.” AT&T and Verizon object to this proposal. We agree with AT&T and Verizon, and do not accept T-Mobile’s suggestion. Having the bidding system automatically submit bids on behalf of a bidder at the new round’s clock price could result in the bidder winning licenses at prices above those it indicated it would accept and is willing to pay, which is inconsistent with basic clock auction principles.

194. The Office will retain the discretion to change the activity requirement before and/or during the auction within the 90-100% range, as circumstances warrant. Any changes to the activity

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351 Id.
352 See supra Section III.F.3 (Upfront Payments and Bidding Eligibility).
353 T-Mobile requests that the Commission consider reducing the number of bidding units for blocks in the 47 GHz band relative to blocks in the 37/39 GHz band, asserting that the blocks in the two bands are not fungible in terms of “global harmonization, standardization and equipment availability.” T-Mobile Reply at 4. We do not accept T-Mobile’s suggestion. For this auction, bidding units are based on weighted MHZ-pops, which are calculated on a PEA basis using price data from certain past auctions. Establishing different bidding units for the two bands would require us to make a judgment about the relative values of the two bands. Even if we were inclined to do so, we have no relevant auction data on which to base such a decision.
354 See infra Section IV.B.4 (Changing Demands, Bid Types, and Bid Processing).
355 T-Mobile Comments at 12.
356 See AT&T Comments at 6 ("[T]he proposal goes against the basic notion that some active acceptance of a new price is necessary to have a meeting of the minds between buyer and seller."); Verizon Reply at 5. AT&T further describes the “relatively simple mechanisms for a bidder to hold its current position” that the Commission provides. AT&T Reply at 7.
requirement will be announced in advance via the bidding system, giving bidders sufficient notice to adjust their bidding strategies if needed.

195. We will not provide for activity rule waivers to preserve a bidder’s eligibility in the event that its bidding activity does not meet the activity requirement in a round. We disagree with T-Mobile that we should provide bidders with activity rule waivers “to allow them the flexibility to maintain their bidding [sic] eligibility in the event of an unintentional error.”\footnote{T-Mobile Comments at 12-13.} We do not permit waivers in this clock auction since bid processing relies on receiving correct demand information for all bidders. If such information is not accurate because a bidder used a waiver, other bidders’ eligibility and activity may be affected adversely. Moreover, as AT&T and Verizon point out,\footnote{See AT&T Reply at 7 (opposing T-Mobile’s proposal); Verizon Reply at 5 (same).} good price discovery and overall auction dynamics rely on current and consistent demand information.\footnote{See infra Section IV.B.4 (Changing Demand, Bid Types, and Bid Processing).}

3. Acceptable Bid Amounts

a. Reserve Price or Minimum Opening Bids

196. We adopt the proposal to establish minimum opening bid amounts for Auction 103.\footnote{See Auction 103 Comment Public Notice at 16, paras. 66-65.} In Round 1 of the clock phase, a bidder will indicate how many blocks in a bidding category in a PEA it demands at the minimum opening bid price. The bidding system will not accept bids lower than these amounts.

197. T-Mobile advocates reducing the minimum opening bid amounts for the 47 GHz band, arguing that the band has a lower value than the Upper 37 GHz and 39 GHz bands.\footnote{T-Mobile Comments at 8-10.} We are not persuaded to set different minimum opening bid amounts for the 47 GHz band. Minimum opening bid amounts are not meant to predict the value of the spectrum, but instead are generally used to accelerate the competitive bidding process. We recognize, however, that if other potential bidders share T-Mobile’s concerns regarding minimum opening bid amounts, then lowering them may encourage participation in the auction and result in increased competition. We adopt minimum opening bid amounts for all three bands that are approximately one-half of the amounts proposed in the Auction 103 Comment Public Notice.\footnote{See Auction 103 Comment Public Notice at 16, para. 66.} We will calculate minimum opening bid amounts using a formula based on 100 megahertz of bandwidth and license area population, weighted using an index of relative prices from past auctions.\footnote{This is similar to our approach in many previous spectrum auctions. The index used for Auction 103 is based on prices in Auctions 1002 and 102 and was adopted in the Updated Reconfiguration Procedures Public Notice. These weights are the same as those used in the reconfiguration process and Round Zero to quantify the weighted MHz-pops of an incumbent’s spectrum holdings.} For PEAs 1–50, minimum opening bid amounts are based on $0.001 per MHz-pop; for PEAs 51–100, minimum opening bid amounts are based on $0.0002 per MHz-pop; and for all other PEAs, minimum opening bid amounts are based on $0.0001 per MHz-pop, with a minimum of $1,000.\footnote{See supra note Error! Bookmark not defined.84 (concerning rounding).} As with upfront payments, we conclude that calculating minimum opening bid amounts using these tiers and per MHz-pop dollar amounts is consistent with our experience in past auctions that the top PEAs by population are generally subject to the greatest level of demand and account for a substantial fraction of total auction...
revenues.\footnote{365 See Comment Sought on Competitive Bidding Procedures for Broadcast Incentive Auction 1000, Including Auctions 1001 and 1002, Public Notice, 29 FCC Rcd 15750, 15770, para. 51 (2014).} Moreover, calculating minimum opening bids in this way is likely to promote a speedy auction by starting the bidding in each market closer to the final price. Thus, we expect that this tiered approach, which reduces minimum opening bid amounts for less densely-populated markets, will encourage auction participation, particularly in rural areas, without unduly prolonging the competitive bidding process. The minimum opening bid amount per block in each PEA is set forth in Attachment A of this Public Notice.

b. Clock Price Increments

198. As proposed, after bidding in the first round and before each later round, the bidding system will announce a clock price for the next round, which is the highest price to which bidders can respond during the round.\footnote{366 See Auction 103 Comment Public Notice at 17, para. 69.} For each round, the bidding system will set the clock price for each category in each PEA by adding a fixed percentage increment to the posted price for the previous round.\footnote{367 For example, if the posted price for the first round is $100, and the price increment is 10%, the clock price for the second round will be $110. The result will be rounded up using the Commission’s standard rounding procedures for auctions: results above $10,000 will be rounded up to the nearest $1,000; results below $10,000 but above $1,000 will be rounded up to the nearest $100; and results below $1,000 will be rounded up to the nearest $10.} As long as aggregate demand for blocks in a category exceeds the supply of blocks, the percentage increment will be added to the clock price from the prior round. If demand equaled supply at an intra-round bid price in a previous round, then the clock price for the next round will be set by adding the percentage increment to the intra-round bid price.

199. We will set the initial increment at 10\%, within the range of 5–20\% that we proposed and now adopt.\footnote{368 See Auction 103 Comment Public Notice at 17, para. 70. T-Mobile urges us to set the initial increment at a “high level” but does not suggest a specific percentage. T-Mobile Comments at 13. WISPA suggests setting the initial increment at 5-10\%. See WISPA Comments at 7.} The Office may adjust the increment as rounds continue, and if it does so, it will provide advance notice to bidders. The 5–20\% increment range will allow the Office to set a percentage that manages the auction pace, taking into account bidders’ needs to evaluate their bidding strategies while moving the auction along quickly.\footnote{369 See Auction 103 Comment Public Notice at 17, para. 70.} We do not adopt a set threshold at which we will vary the increment, as WISPA recommends,\footnote{370 See WISPA Comments at 8. WISPA further requests that we rely primarily on changes to the round schedule to accelerate the pace of the auction, rather than increases in the price increment, citing concerns among small bidders for predictability. Id. at 7. However, we will retain the flexibility to use both tools in managing the pace of the auction but reiterate that we will provide advance notice of any changes that we will make to the auction parameters during the auction, which should mitigate concerns about predictability.} but we will rely on our staff’s evaluation of various bidding dynamics when determining if a change should be made. Nor do we accept AT&T’s suggestion that 10\% should be the upper limit on the increment,\footnote{371 See AT&T Reply at 5.} since we wish to maintain the flexibility to increase the increment above that percentage should circumstances indicate that it would be useful in managing the pace of the auction. Increments may be changed during the auction on a PEA-by-PEA or category-by-category basis based on bidding activity to ensure that the system can offer appropriate price choices to bidders.\footnote{372 See Auction 103 Comment Public Notice at 17, para. 70.}
c. Intra-Round Bids

200. We adopt our proposal to permit a bidder to make intra-round bids by indicating a price between the previous round’s posted price and the new clock price at which its demand for blocks in a category in a PEA changes. In placing an intra-round bid, a bidder will indicate a specific price and a quantity of blocks it demands if the price for blocks in the category in the PEA should increase beyond that price.

201. Intra-round bids are optional; a bidder may choose to express its demands only at the clock prices.

202. Intra-round bidding allows the bidding system to use relatively large clock increments, thereby speeding the clock phase, without running the risk that a jump in the clock price will overshoot the market clearing price—the point at which demand for blocks equals the available supply.

203. WISPA agrees that intra-round bids should be permitted but warns that “relying on intra-round bids to express demand at a certain price will increase the complexity of the auction for bidders, may disincentivize smaller bidders from participating, or may cause them to reduce demand prematurely.” Our experience so far with intra-round bidding in clock auctions has been positive, including with smaller bidders. We encourage any participants that are concerned about the complexity of intra-round bids to take advantage of the various training opportunities we offer in order to become more comfortable with these auction procedures.

d. Bid Removal and Bid Withdrawal

204. In the Auction 103 Comment Public Notice, we addressed bid removal procedures in the bidding system. The bidding system allows a bidder to remove any of the bids it placed in a round before the close of that round. By removing a bid placed within a round, a bidder effectively “unsubmits” the bid. A bidder removing a bid placed in the same round is not subject to withdrawal payments. Removing a bid will affect a bidder’s activity because a removed bid no longer counts toward bidding activity for the round. Once a round closes, a bidder may no longer remove a bid.

205. Bid withdrawals, analogous to withdrawals of provisionally winning bids in an SMR auction, are not available in Auction 103. However, below we set forth procedures such that bidders in Auction 103 may request to reduce demand for generic blocks in a bidding category.

373 Id. at 17, para. 71.

374 For example, consider a round where the clock price increases from $100 to $110. A bidder indicated in the previous round that it demanded 3 blocks at $100, but its demand changes from 3 blocks to 2 blocks when the price increases beyond $105 and up to $110. To indicate that preference, the bidder should submit an intra-round bid for 2 blocks at a price of $105.

375 See Auction 103 Comment Public Notice at 17, para. 72.

376 Id.

377 WISPA Comments at 8.


379 See Auction 103 Comment Public Notice at 20, paras. 88-89.

380 See infra Section IV.B.4 (Changing Demand, Bid Types, and Bid Processing) (discussing how the system will process requests to reduce demand).
e. No Bidding Aggregation

206. As proposed, we do not adopt any package bidding procedures for the clock phase of Auction 103.\footnote{See Auction 103 Comment Public Notice at 19, para. 85.} A bidder may bid for multiple blocks in a bidding category in a PEA and may submit bids for multiple PEAs. As set forth below, under the procedures we adopt for the assignment phase, the assignment phase will assign contiguous blocks to winners of multiple blocks in a category in a PEA, and give bidders an opportunity to express their preferences for specific frequency blocks, thereby facilitating aggregations of licenses.

4. Changing Demand, Bid Types, and Bid Processing

207. Under the ascending clock procedures we adopt, for each category in each PEA, a bidder can either bid to maintain its processed demand from the previous round at the current round’s clock price or bid to change its demand at a price associated with the round.\footnote{Id. at 17-18, paras. 73-75.} A bid to change demand can involve either a decrease or an increase in the demanded quantity.

208. Bids to maintain demand are always applied during bid processing. However, if a bidder demands fewer blocks in a category than its processed demand from the previous round, the bidding system will treat the bid as a request to reduce demand that will be implemented only if aggregate demand would not fall below the available supply of blocks in the category. If a bidder demands more blocks in a category than its processed demand from the previous round, the bidding system will treat the bid as a request to increase demand that will be implemented only if that would not cause the bidder’s processed activity to exceed its eligibility.

209. The bidding system will process bids after a round ends in order of price point, where the price point represents the percentage of the bidding interval for the round.\footnote{For example, if the posted price for the previous round is $5,000 and the clock price of the current round is $6,000, a price of $5,100 will correspond to the 10% price point, since it is 10% of the bidding interval between $5,000 and $6,000.} Specifically, once a round ends, the bidding system will process bids in ascending order of price point, first considering intra-round bids in order of price point and then bids at the clock price. The system will consider bids at the lowest price point for all categories in all PEAs, then look at bids at the next price point, and so on. In processing the bids submitted in the round, the bidding system will determine the extent to which there is excess demand for each category in each PEA in order to determine whether a bidder’s requested reduction(s) in demand can be implemented. In processing the bids submitted in the round, the bidding system will also determine the bidding units associated with a bidder’s most recent processed demand in order to determine whether the bidder’s requested increase(s) in demand can be implemented.

210. For a given category in a given PEA, the uniform price for all of the blocks in the category will stop increasing when aggregate demand no longer exceeds the available supply of blocks in the category. If no further bids are placed, the final clock phase price for the category will be the stopped price.\footnote{This and other Auction 103 bid processing details are addressed in the Auction 103 Clock Phase Technical Guide.}

211. In order to facilitate bidding for multiple blocks in a PEA, bidders will be permitted to make two types of bids: simple bids and switch bids.\footnote{See Auction 103 Comment Public Notice at 18, para. 78.}

- A “simple” bid indicates a desired quantity of licenses in a category at a price (either the clock price or an intra-round price). Simple bids may be applied partially. A simple bid that involves a
reduction from the bidder’s previous demands may be implemented partially if aggregate excess demand is insufficient to support the entire reduction. A simple bid to increase a bidder’s demand in a category may be applied partially if the total number of bidding units associated with the bidder’s full increase in demand exceeds the bidder’s bidding eligibility for the round.

- A “switch” bid allows the bidder to request to move its demand for a quantity of licenses from the M/N category to the P category, or vice versa, within the same PEA. A switch bid may be applied partially, but the increase in demand in the “to” category will always match in quantity the reduction in the “from” category.

212. These bid types will allow bidders to express their demand for blocks in the next clock round without running the risk that they will be forced to purchase more spectrum at a higher price than they wish. When a bid to reduce demand can be applied only partially, the uniform price for the category will stop increasing at that point, since the partial application of the bid results in demand falling to equal supply. Hence, a bidder that makes a simple bid or a switch bid that cannot be applied fully will not face a price that is higher than its bid price for the remaining demand.

213. Because bids are processed in order of price point, and aggregate demand for a category in a PEA can change from price point to price point, the price point at which a bid is considered by the bidding system can affect whether the bid is accepted. However, bids not accepted because of insufficient aggregate demand or insufficient eligibility at a given price point will be held in a queue and considered, again in order, if there should be excess demand or sufficient eligibility later in the processing after other bids are processed.

214. More specifically, under the procedures we adopt, once a round closes, the bidding system will process the bids by first considering the bid submitted at the lowest price point and determine whether it can be accepted given aggregate demand as determined most recently and the bidder’s current eligibility. If the bid can be accepted, or partially accepted, the number of licenses the bidder demands will be adjusted, and aggregate demand will be recalculated accordingly. If the bid cannot be accepted in part or in full, the unfulfilled bid, or portion thereof, will be held in a queue to be considered later during bid processing for that round. The bidding system will then consider the bid submitted at the next highest price point, accepting it in full, in part, or not at all, given recalculated aggregate demand and given the bidder’s eligibility. Any unfulfilled requests will again be held in a queue, and aggregate demand will again be recalculated. Every time a bid or part of a bid is accepted and aggregate demand has been recalculated, the unfulfilled bids held in queue will be reconsidered, in the order of their original price points (and by pseudo-random number, in the case of tied price points). The bidding system will not carry over unfulfilled bid requests to the next round, however. The bidding system will inform bidders of the status of their bids when round results are released.

215. After the bids are processed in each round, the bidding system will announce, for each bidding category in each PEA: the aggregate demand; the posted price; and the clock price for the next round, to indicate a range of acceptable bids for the next round. If demand fell to equal supply during the round, the posted price will be equal to the intra-round price at which that occurred.\(^{386}\) Each bidder will also be informed of its own processed demand for every category and PEA and of its own eligibility for the next round.

5. **Winning Bids in the Clock Phase**

216. Bidders that hold processed demand in a category in a PEA at the time the stopping rule is met will, provided that the net revenue requirement is satisfied, become winning bidders and will be

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\(^{386}\) As discussed above, if there is excess demand, a fixed percentage increment will be added to the clock price for the previous round, and this percentage increment will be the same for all categories in all PEAs. However, if in the round, an intra-round bid brings demand down to the point at which it is equal to supply, the increment will be added to that intra-round price. *See supra* Section IV.B.3.c (Intra-Round Bids).
assigned frequency-specific licenses in the assignment phase.

217. The final clock phase price is the posted price of the final round. This will be the price at which a reduction caused demand for the blocks to equal the supply of blocks in the category in the PEA. For categories in PEAs where supply exceeds demand, the final clock phase price will be the opening price.

C. Assignment Phase Bid Collection and Bid Processing Procedures

218. The assignment phase will determine which frequency-specific licenses will be won by the winning bidders of generic blocks during the clock phase. In the assignment phase, winning bidders will have the opportunity to bid for preferred combinations of frequency-specific licenses. A bidder can assign a price using a sealed bid to one or more possible frequency assignments for which it wishes to express a preference, consistent with its winning bids for generic blocks in the clock phase. The bid prices will represent the maximum payment that the bidder is willing to pay for the frequency-specific license assignment, in addition to the final price established in the clock phase for the generic blocks. The procedures we adopt will determine the optimal assignment of licenses within each category in each PEA based on bid amounts in the assignment phase.

219. Participation in the assignment phase is voluntary; a winning bidder in the clock phase of Auction 103 need not bid in order to be assigned a number of licenses corresponding to the outcome of the clock phase. Moreover, a bidder that wins multiple blocks in a category in a PEA will be assigned contiguous blocks of licenses, even without bidding in the assignment phase.

220. As determined in the Spectrum Frontiers Fourth R&O, each incumbent that submits an Initial Commitment to accept modified licenses (Options 1 or 2 in the Initial Commitment System) will be assigned specific frequencies in the assignment phase, but only clock phase winners will be able to bid for their frequency preferences. Subject to the waiver process described above, incumbents accepting modified licenses as well as clock phase winners may be assigned frequency-specific licenses anywhere in the Upper 37 GHz/39 GHz band, depending upon bidding in each assignment round.

1. Round Structure: Sequencing and Grouping of Rounds

221. Sequencing of rounds. We adopt the proposal to conduct assignment rounds for the largest markets first. This sequencing will enable bidders to establish a “footprint,” making it easier for a bidder to incorporate frequency assignments from previously assigned areas into its bid preferences for other areas, and recognizes that a bidder winning blocks in multiple PEAs may prefer contiguous blocks across adjacent PEAs.

222. Specifically, we will conduct a separate assignment round for each of the top 20 PEAs sequentially, beginning with the largest PEAs. Once the top 20 PEAs have been assigned, we will conduct, for each Regional Economic Area Grouping (REAG), a series of assignment rounds for the...
remaining PEAs within that region.\textsuperscript{391} We will sequence the assignment rounds within a REAG in descending order of population for a PEA group or individual PEA.

223. **Grouping of PEAs.** To reduce the total amount of time required to complete the assignment phase, we will group into a single market for assignment any non-top 20 PEAs within a region in which the same entities (winning bidders and incumbents keeping modified licenses\textsuperscript{392}) must be assigned the same number of blocks in each category, and all are subject to the small markets bidding cap or all are not subject to the cap, which will also help maximize contiguity across PEAs. Accordingly, in markets where these criteria are met, a bidder will submit a single set of bids for assignment options that will apply to all the PEAs in the group and will be assigned the same frequency-specific licenses in each PEA.

224. In addition, we will conduct the bidding for the different REAGs in parallel. That is, bidding for assignments in multiple PEAs or PEA groups will take place during the same timed bidding round. This will also help reduce the length of the assignment phase.

2. **Acceptable Bids and Bid Processing**

225. Under the procedures we adopt, prior to the start of the assignment phase, the bidding system will provide each clock phase winner with bidding options for all possible contiguous frequency assignments for each category in each PEA in which the bidder won blocks in the clock phase. In each assignment round, a bidder will be asked to assign a price to one or more of the bidding options for which it wishes to express a preference, consistent with its winning bid(s) for generic blocks in the clock phase.\textsuperscript{393} The price will represent the maximum payment that the bidder is willing to pay, in addition to the base price established in the clock phase for the generic blocks, for the frequency-specific license or licenses in its bid.

226. Although AT&T and others, citing “unnecessary burdens,” request that we provide for bidding only on those assignment options that are feasible given contiguity constraints on the assignments of other clock phase winners,\textsuperscript{394} we choose instead to adopt our proposed approach, consistent with other limited information procedures that aim to deter undesirable strategic bidding behavior. Providing only feasible assignment bidding options makes it easier to infer the winnings and identities of other bidders.

227. A bidder will submit separate preferences for blocks it won in the Upper 37 and 39 GHz bands and blocks it won in the 47 GHz band, rather than submitting bids for preferences that include blocks in both categories. That is, if a bidder won one block in Category M/N and two blocks in Category P, it would not be able to submit a single bid amount for an assignment that included all three blocks. Instead, it would bid separately for assignments in Category M/N and assignments in Category P. We sought comment on allowing bidders to submit a single bid for assignments that include frequencies in both categories, in cases where the bidder won blocks in both Category M/N and Category P. T-Mobile agrees with our proposed procedures, which we adopt.\textsuperscript{395}

\textsuperscript{391} Top 20 PEAs are PEAs 1–20. T-Mobile supports our proposal to conduct separate assignment rounds for the top 20 PEAs. See T-Mobile Comments at 15. However, T-Mobile also asserts that bidders may have less interest in coordinating their frequencies across different PEAs than they do for low-band spectrum and that, therefore, there is less benefit from conducting separate assignment rounds for the top PEAs than there is in auctions of low-band spectrum licenses. See id. at 15-16.

\textsuperscript{392} Further, in a grouping, for an incumbent keeping modified licenses, the number of blocks that it cannot be assigned due to a waiver must be the same for every PEA in the group.

\textsuperscript{393} The Auction 103 Assignment Phase Technical Guide provides mathematical details of this proposal.

\textsuperscript{394} AT&T Comments at 2-3; see AT&T Reply at 2; T-Mobile Reply at 6; Verizon Reply at 6.

\textsuperscript{395} See T-Mobile Comments at 16.
228. We will use an optimization approach to determine the winning frequency assignment for each category in each PEA or PEA group. We adopt procedures such that the bidding system will select the assignment that maximizes the sum of bid amounts among all assignments where every bidder and every incumbent that accepts modified licenses under Initial Commitment Options 1 or 2 is assigned contiguous spectrum. The bidding system will consider all assignment options of incumbents accepting modified licenses as though the incumbent had submitted bids of $0.

229. Further, the additional price a bidder will pay for a specific frequency assignment (above the final clock phase price) will be calculated consistent with a generalized “second price” approach—that is, the winner will pay a price that would be just sufficient to result in the bidder receiving that same winning frequency assignment while ensuring that no group of bidders is willing to pay more for an alternative assignment in which every bidder is assigned contiguous spectrum. This price will be less than or equal to the price the bidder indicated it was willing to pay for the assignment. Determining prices in this way encourages bidders to bid their full value for the assignment, knowing that if the assignment is selected, they will pay no more than would be necessary to ensure that the outcome is competitive.

3. Assignment Phase Payment Calculations

230. When all assignment rounds have been completed, a bidder’s final net total payment takes into account the sum of final clock phase prices across all licenses that it won, its assignment payments across all assignment phase markets, any incentive payments accruing to the bidder, and any claimed bidding credits. Specifically, if a bidder is not claiming a bidding credit, its final net total payment is determined by summing the final clock phase prices across all licenses that it won and its assignment payments across all assignment phase markets and subtracting its total incentive payments across all licenses from the total.

231. If a bidder claims a bidding credit, a bidding credit discount is calculated by applying the bidder’s bidding credit percentage to the total net payment obligations as set forth above, capping the bidding credit discount if it exceeds the applicable caps for small businesses, rural service providers, and small markets. The resulting bidding credit discount is subtracted from the bidder’s total net payment obligations to determine the final net total payment for a bidder with a bidding credit.

D. Calculating Individual License Prices

232. While final auction payments for winning bidders will be calculated with bidding credit caps and assignment payments applied on an aggregate basis, rather than to individual licenses, the bidding system will also calculate a per-license price for each license. Such individual prices may be needed if a licensee later incurs license-specific obligations, such as unjust enrichment payments.

233. After the assignment phase, the bidding system will determine a net and gross price for each license that was won by a bidder by apportioning assignment payments and any bidding credit discount (which was calculated based on total net payment obligations taking account of any caps) across

396 Furthermore, if there are multiple blocks in a category that remain unsold, the unsold licenses will be contiguous to each other and adjacent to a license for a partial PEA, if there is a single partial PEA license to be assigned.

397 If the incumbent is subject to a waiver in a PEA, the bidding system also will preclude assigning the incumbent licenses in the blocks in that PEA specified in the waiver.

398 See the Auction 103 Assignment Phase Technical Guide for mathematical details.

399 The pricing approach is a version of a Vickrey-Clarke-Groves mechanism. It is described in the Auction 103 Assignment Phase Technical Guide.

400 See the Auction 103 Assignment Phase Technical Guide for mathematical details.

401 See the Auction 103 Assignment Phase Technical Guide for details.
all the licenses that the bidder won. To calculate the gross per-license price, the bidding system will apportion the assignment payment to licenses in proportion to the final clock phase prices of the licenses that the bidder is assigned in that category and market. To calculate the net price, the bidding system will first apportion any applicable bidding credit discounts to each category and assignment phase market in proportion to the gross payment for that category and that market. Then, for each assignment phase market, the bidding system will apportion the assignment payment and the discount to licenses in proportion to the final clock phase price of the licenses that the bidder is assigned in that category for that market.

E. Auction Results

234. The bidding system will determine winning bidders and their assigned licenses as described in Sections IV.B.5 (Winning Bids in the Clock Phase) and IV.C (Assignment Phase Bid Collection and Bid Processing Procedures), above. After the Office announces the auction results, it will provide a means for the public to view and download bidding and results data.

F. Auction Announcements

235. The Commission and/or Office will use auction announcements to report necessary information to bidders, such as schedule changes. All auction announcements will be available by clicking a link in the bidding system.

V. POST-AUCTION PROCEDURES

236. Shortly after bidding has ended in Auction 103, a public notice will be released declaring that the auction closed and establishing the deadlines for submitting down payments, final payments, and the long-form applications (FCC Form 601) for the auction.402

A. Down Payments

237. Within 10 business days after release of the auction closing public notice for Auction 103, each winning bidder must submit sufficient funds (in addition to its upfront payment) to bring its total amount of money on deposit with the Commission to 20% of the net amount of its winning bids (gross winning bids less any incentive payment, then less any bidding credits, if applicable).403

B. Final Payments

238. Each winning bidder will be required to submit the balance of the net amount for each of its winning bids within 10 business days after the deadline for submitting down payments.404

C. Long-Form Application (FCC Form 601)

239. The Commission’s rules provide that, within 10 business days after release of the auction closing public notice, winning bidders must electronically submit a properly completed post-auction application (FCC Form 601) for the license(s) they won through the auction.405

240. A winning bidder claiming eligibility for a small business bidding credit or a rural service provider bidding credit must demonstrate its eligibility in its FCC Form 601 post-auction application for

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402 The Updated Reconfiguration Procedures Public Notice details additional post-auction transition procedures that apply to incumbents. Updated Reconfiguration Procedures Public Notice at 16-17, paras. 47-51.

403 47 CFR § 1.2107(b). The Updated Reconfiguration Procedures Public Notice describes how an incumbent’s incentive payment will be calculated. Updated Reconfiguration Procedures Public Notice at 17, para. 52.

404 47 CFR § 1.2109(a); see CSEA/Part 1 Report and Order, 21 FCC Rcd at 907-09, paras. 43-46.

405 47 CFR § 1.2107(c).
the bidding credit sought.\textsuperscript{406} Further instructions on these and other filing requirements will be provided to winning bidders in the auction closing public notice for Auction 103.

241. Winning bidders organized as bidding consortia must comply with the FCC Form 601 post-auction application procedures set forth in section 1.2107(g) of the Commission’s rules.\textsuperscript{407} Specifically, license(s) won by a consortium must be applied for as follows: (a) an individual member of the consortium or a new legal entity comprising two or more individual consortium members must file for licenses covered by the winning bids; (b) each member or group of members of a winning consortium seeking separate licenses will be required to file a separate FCC Form 601 for its/their respective license(s) in their legal business name; (c) in the case of a license to be partitioned or disaggregated, the member or group filing the applicable FCC Form 601 shall include the parties’ partitioning or disaggregation agreement with the FCC Form 601; and (d) if a DE credit is sought (either small business or rural service provider), the applicant must meet the applicable eligibility requirements in the Commission’s rules for the credit.\textsuperscript{408}

D. Ownership Disclosure Information Report (FCC Form 602)

242. Within 10 business days after release of the auction closing public notice for Auction 103, each winning bidder must also comply with the ownership reporting requirements in sections 1.913, 1.919, and 1.2112 of the Commission’s rules by submitting an ownership disclosure information report for wireless telecommunications services (FCC Form 602) with its FCC Form 601 post-auction application.\textsuperscript{409}

243. If a winning bidder already has a complete and accurate FCC Form 602 on file in the FCC’s Universal Licensing System (ULS), it is not necessary to file a new report, but the winning bidder must certify in its FCC Form 601 application that the information on file with the Commission is complete and accurate. If the winning bidder does not have an FCC Form 602 on file, or if it is not complete and accurate, it must submit one.

244. When a winning bidder submits an FCC Form 175, ULS automatically creates an ownership record. This record is not an FCC Form 602, but it may be used to pre-fill the FCC Form 602 with the ownership information submitted on the winning bidder’s FCC Form 175 application. A winning bidder must review the pre-filled information and confirm that it is complete and accurate as of the filing date of the FCC Form 601 post-auction application before certifying and submitting the FCC Form 602. Further instructions will be provided to winning bidders in the auction closing public notice.

E. Tribal Lands Bidding Credit

245. A winning bidder that intends to use its license(s) to deploy facilities and provide services to federally recognized tribal lands that are unserved by any telecommunications carrier or that have a wireline penetration rate equal to or below 85% is eligible to receive a tribal lands bidding credit as set forth in sections 1.2107 and 1.2110(f) of the Commission’s rules.\textsuperscript{410} A tribal lands bidding credit is in addition to, and separate from, any other bidding credit for which a winning bidder may qualify.

246. Unlike other bidding credits that are requested prior to the auction, a winning bidder applies for the tribal lands bidding credit after the auction when it files its FCC Form 601 post-auction application.

\textsuperscript{406} Id. § 1.2112(b).

\textsuperscript{407} Id. § 1.2107(g); see also CSEA/Part 1 Report and Order, 21 FCC Rcd at 911-12, paras. 51-52; 2015 Part 1 Report and Order, 30 FCC Rcd at 7535, para. 101.

\textsuperscript{408} 47 CFR § 1.2107(g); see also id. § 1.2110(b)(4)(i), (c)(6); 2015 Part 1 Report and Order, 30 FCC Rcd at 7535-36, 7574, 7583-86, paras. 101-03, 190, 214-26.

\textsuperscript{409} 47 CFR §§ 1.913, 1.919, 1.2107(f), 1.2112.

\textsuperscript{410} Id. §§ 1.2107, 1.2110(f); 2016 Spectrum Frontiers Order, 31 FCC Rcd at 8101, para. 253.
application. When initially filing the post-auction application, the winning bidder will be required to inform the Commission whether it intends to seek a tribal lands bidding credit, for each license won in the auction, by checking the designated box(es). After stating its intent to seek a tribal lands bidding credit, the winning bidder will have 180 days from the close of the post-auction application filing window to amend its application to select the specific tribal lands to be served and provide the required tribal government certifications. Licensees receiving a tribal lands bidding credit are subject to performance criteria as set forth in section 1.2110(f)(3)(vii).\textsuperscript{411} For additional information on the tribal lands bidding credit, including how the amount of the credit is calculated, applicants should review the Commission’s rulemaking proceeding regarding tribal lands bidding credits and related public notices.\textsuperscript{412}

F. Default and Disqualification

247. Any winning bidder that defaults or is disqualified after the close of an auction (i.e., fails to remit the required down payment by the specified deadline, fails to submit a timely long-form application, fails to make a full and timely final payment, or is otherwise disqualified) is liable for default payments as described in section 1.2104(g)(2).\textsuperscript{413} This payment consists of a deficiency payment, equal to the difference between the amount of the bidder’s winning bid and the amount of the winning bid the next time a license covering the same spectrum is won in an auction, plus an additional payment equal to a percentage of the defaulter’s bid or of the subsequent winning bid, whichever is less.

248. The percentage of the applicable bid to be assessed as an additional payment for defaults in a particular auction is established in advance of the auction. We adopt our proposal to set the additional default payment for Auction 103 at 15% of the applicable bid.\textsuperscript{414}

249. In case they are needed for post-auction administrative purposes, the bidding system will calculate individual per-license prices that are separate from final auction payments, which are calculated on an aggregate basis. The bidding system will apportion to individual licenses any assignment phase payments and any capped bidding credit discounts,\textsuperscript{415} since in both cases, a single amount may apply to multiple licenses.

250. Finally, in the event of a default, the Commission has the discretion to re-auction the license or offer it to the next highest bidder (in descending order) at its final bid amount.\textsuperscript{416} In addition, if a default or disqualification involves gross misconduct, misrepresentation, or bad faith by an applicant, the Commission may declare the applicant and its principals ineligible to bid in future auctions and may

\textsuperscript{411} See 47 CFR § 1.2110(f)(3)(ii)-(vii).


\textsuperscript{413} 47 CFR § 1.2104(g)(2).

\textsuperscript{414} See Auction 103 Comment Public Notice at 22, para. 98.

\textsuperscript{415} See supra Section II.H.3 (Caps on Bidding Credits).

\textsuperscript{416} 47 CFR § 1.2109(b)-(c).
take any other action that it deems necessary, including institution of proceedings to revoke any existing authorizations held by the applicant.\(^{417}\)

G. Refund of Remaining Upfront Payment Balance

251. All refunds of upfront payment balances will be returned to the payer of record as identified on the FCC Form 159 unless the payer submits written authorization instructing otherwise. Bidders are encouraged to use the Refund Information icon found on the Auction Application Manager page or the Refund Form link available on the Auction Application Submit Confirmation page in the FCC Auction Application System to access the form. After the required information is completed on the blank form, the form should be printed, signed, and submitted to the Commission by mail, fax, or email as instructed below.

252. If you have elected not to access the Refund Form through the Auction Application Manager page, the Commission is requesting that all information listed below be supplied in writing.

- Name, address, contact and phone number of Bank
- ABA Number
- Account Number to Credit
- Name of Account Holder
- FCC Registration Number (FRN)

The refund request must be submitted by fax to the Revenue & Receivables Operations Group/Auctions at (202) 418-2843, by email to RROGFAXES@fcc.gov, or by mail to:

Federal Communications Commission  
Financial Operations  
Revenue & Receivables Operations Group/Auctions  
Scott Radcliffe  
445 12th Street, SW, Room 1-C848  
Washington, DC 20554

NOTE: Refund processing generally takes up to two weeks to complete. Bidders with questions about refunds should contact Scott Radcliffe at (202) 418-7518, Theresa Meeks at (202) 418-2945, or Gail Glasser at (202) 418-0578.

VI. PROCEDURAL MATTERS

253. Supplemental Final Regulatory Flexibility Analysis. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),\(^{418}\) a Supplemental Initial Regulatory Flexibility Analysis (Supplemental IRFA) was incorporated in the Auction 103 Comment Public Notice released in April 2019. The Commission sought public comment on the proposals in the Auction 103 Comment Public Notice, including comments on the Supplemental IRFA. No comments were filed addressing the Supplemental IRFA. This Public Notice establishes the procedures to be used for Auction 103 and supplements the Initial and Final Regulatory Flexibility Analyses completed by the Commission in the Spectrum Frontiers Fourth R&O, 2017 Spectrum Frontiers Order, 2016 Spectrum Frontiers Order, and other Commission orders pursuant to which Auction 103 will be conducted.\(^{419}\) This present Supplemental Final Regulatory Flexibility Analysis (Supplemental FRFA) conforms to the RFA.\(^{420}\)

254. Need for, and Objectives of, the Rules. This Public Notice implements auction

\(^{417}\) *Id.* § 1.2109(d).

procedures for those entities that seek to bid to acquire licenses in Auction 103. Auction 103 will be our third auction of high-band spectrum in furtherance of the deployment of fifth-generation (5G) wireless, the Internet of things (IoT), and other advanced spectrum-based services. The Public Notice adopts procedural rules and terms and conditions governing Auction 103, the post-auction application and payment processes, as well as setting the minimum opening bid amounts for Upper Microwave Flexible Use Service (UMFUS) licenses in the Upper 37 GHz (37.6–38.6 GHz), 39 GHz (38.6–40 GHz), and 47 GHz (47.2–48.2 GHz) bands that will be offered in Auction 103.

255. To promote the efficient and fair administration of the competitive bidding process for all Auction 103 participants, we adopt the following procedures proposed in the Auction 103 Comment Public Notice:

- establishment of bidding credit caps for eligible small businesses and rural service providers in Auction 103;
- use of a clock auction format for Auction 103 under which each qualified bidder will indicate in successive clock bidding rounds its demands for categories of generic blocks in specific geographic areas;
- a specific minimum opening bid amount for generic blocks in each PEA available in Auction 103;
- a specific upfront payment amount for generic blocks in each PEA available in Auction 103;
- establishment of a bidder’s initial bidding eligibility in bidding units based on that bidder’s upfront payment;
- use of an activity rule that would require bidders to bid actively during the auction rather than waiting until late in the auction before participating;
- a requirement that bidders be active on between 90% and 100% of their bidding eligibility in all regular clock rounds;
- establishment of acceptable bid amounts, including clock price increments and intra-round bids, along with a proposed methodology for calculating such amounts;
- a proposed methodology for processing bids and requests to reduce demand;
- a procedure for breaking ties if identical high bid amounts are submitted on a license in a given round;
- establishment of an assignment phase that will determine which frequency-specific licenses will be won by the winning bidders of generic blocks during the clock phase;
- establishment of an additional default payment of 15% under section 1.2104(g)(2) of the rules in the event that a winning bidder defaults or is disqualified after the auction.

256. The procedures for the conduct of Auction 103 constitute the more specific implementation of the competitive bidding rules contemplated by Parts 1 and 30 of the Commission’s rules and the underlying rulemaking orders, including the Spectrum Frontiers Fourth R&O, 2017 Spectrum Frontiers Order, 2016 Spectrum Frontiers Order, and relevant competitive bidding orders, and are fully consistent therewith.421

(Continued from previous page)


257. **Summary of Significant Issues Raised by Public Comments in Response to the IRFA.** There were no comments filed that specifically address the procedures and policies proposed in the Supplemental IFRA.

258. **Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration.** Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comment filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA) and to provide a detailed statement of any change made to the proposed procedures as a result of those comments. The Chief Counsel did not file any comments in response to the procedures that were proposed in the *Auction 103 Comment Public Notice.*

259. **Description and Estimate of the Number of Small Entities to Which the Rules Will Apply.** The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the rules and policies adopted herein. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act. A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

260. As noted above, Regulatory Flexibility Analyses were incorporated into the *Spectrum Frontiers Fourth R&O, 2017 Spectrum Frontiers Order,* and *2016 Spectrum Frontiers Order.* These orders provide the underlying authority for the procedures proposed in the *Auction 103 Comment Public Notice* and adopted herein for Auction 103. In those analyses, we described in detail the small entities that might be significantly affected. In this Public Notice, we hereby incorporate by reference the descriptions and estimates of the number of small entities from the previous Regulatory Flexibility Analyses in the *Spectrum Frontiers Fourth R&O, 2017 Spectrum Frontiers Order,* and *2016 Spectrum Frontiers Order.*

261. Based on the information available in the Commission’s public Universal Licensing System (ULS), we estimate there are currently 16 incumbent 39 GHz licensees. Of these incumbent 39 GHz licensees, we estimate that up to 8 could be considered a “small entity” under the RFA.

(Continued from previous page)
262. **Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities.** The Commission designed the auction application process itself to minimize reporting and compliance requirements for applicants, including small business applicants. In the first part of the Commission’s two-phased auction application process, parties desiring to participate in an auction file streamlined, short-form applications in which they certify under penalty of perjury as to their qualifications.\(^{429}\) Eligibility to participate in bidding is based on an applicant’s short-form application and certifications, as well as its upfront payment. In the second phase of the process, winning bidders file a more comprehensive long-form application. Thus, an applicant which fails to become a winning bidder does not need to file a long-form application and provide the additional showings and more detailed demonstrations required of a winning bidder.

263. We do not expect the processes and procedures adopted in this Public Notice will require small entities to hire attorneys, engineers, consultants, or other professionals to participate in Auction 103 and comply with the procedures we ultimately adopt because of the information, resources, and guidance we make available to potential and actual participants. We cannot quantify the cost of compliance with the procedures; however, we do not believe that the costs of compliance will unduly burden small entities that choose to participate in the auction. We note the processes and procedures are consistent with existing Commission policies and procedures used in prior auctions. Thus, some small entities may already be familiar with such procedures and have the processes and procedures in place to facilitate compliance resulting in minimal incremental costs to comply. For those small entities that may be new to the Commission’s auction process, the various resources that will be made available, including, but not limited to, the mock auction, remote electronic or telephonic bidding, and access to hotlines for both technical and auction assistance, should help facilitate participation without the need to hire professionals. For example, we intend to release an online tutorial that will help applicants understand the procedures for filing the auction short-form applications (FCC Form 175). We also intend to offer other educational opportunities for applicants in Auction 103 to familiarize themselves with the FCC auction application system and the bidding system. By providing these resources as well as the resources discussed below, we expect small business entities that utilize the available resources to experience lower participation and compliance costs.

264. **Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered.** The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.”\(^{430}\)

265. We have taken steps to minimize any economic impact of our auction procedures on small businesses through among other things, the many free resources we provide potential auction participants. Consistent with the past practices in prior auctions, small entities that are potential participants will have access to detailed educational information and Commission personnel to help guide their participation in Auction 103, which should alleviate any need to hire professionals. More specifically, small entities and other auction participants may seek clarification of or guidance on complying with competitive bidding rules and procedures, reporting requirements, and using the bidding system. Additionally, an FCC Auctions Hotline will provide small entities one-on-one access to Commission staff for information about the auction process and procedures. Further, the FCC Auctions Technical Support Hotline is another resource which provides technical assistance to applicants, including

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\(^{429}\) See *Competitive Bidding Second Report and Order*, 9 FCC Rcd at 2376-77, paras. 163-66.

\(^{430}\) 5 U.S.C. § 603(c)(1)-(4).
small business entities, on issues such as access to or navigation within the electronic FCC Form 175 and use of the bidding system. Small entities and other would-be participants will also be provided various materials on the pre-bidding process in advance of the short-form application filing window, which includes step-by-step instructions on how to complete FCC Form 175. In addition, small entities will have access to the web-based, interactive online tutorial produced by Commission staff to familiarize themselves with auction procedures, filing requirements, bidding procedures, and other matters related to an auction.

266. We also make various databases and other sources of information, including the Auctions program websites and copies of Commission decisions, available to the public without charge, providing a low-cost mechanism for small businesses to conduct research prior to and throughout the auction. Prior to and at the close of Auction 103, we will post public notices on the Auctions website, which articulate the procedures and deadlines for the auction. We make this information easily accessible and without charge to benefit all Auction 103 applicants, including small businesses, thereby lowering their administrative costs to comply with the Commission’s competitive bidding rules.

267. Prior to the start of bidding, eligible bidders will be given an opportunity to become familiar with auction procedures and the bidding system by participating in a mock auction. Eligible bidders will have access to a user guide for the bidding system, bidding file formats, and an online bidding procedures tutorial in advance of the mock auction. Further, we intend to conduct Auction 103 electronically over the Internet using a web-based auction system that eliminates the need for small entities and other bidders to be physically present in a specific location. Qualified bidders will also have the option to place bids by telephone. These mechanisms are made available to facilitate participation in Auction 103 by all eligible bidders and may result in significant cost savings for small business entities that use these alternatives. Moreover, the adoption of bidding procedures in advance of the auction, consistent with statutory directive, is designed to ensure that the auction will be administered predictably and fairly for all participants, including small businesses.

268. Another step taken to minimize the economic impact for small entities participating in Auction 103 is the Commission’s adoption of bidding credits for small businesses. In accordance with the service rules applicable to the UMFUS licenses to be offered in Auction 103, bidding credit discounts will be available to eligible small businesses and small business consortiums on the following basis: (1) A bidder with attributed average annual gross revenues that do not exceed $55 million for the preceding three years is eligible to receive a 15% discount on its winning bid, or (2) a bidder with attributed average annual gross revenues that do not exceed $20 million for the preceding three years is eligible to receive a 25% discount on its winning bid. Eligible applicants can receive only one of the available bidding credits—not both. With regard to the alternative proposal by WISPA for a third-tier with a higher bidding credit, this two-tier approach has proven successful for small businesses in past auctions, and as discussed above, we cannot reconsider the Commission’s decision to adopt a two-tiered approach in this Public Notice.

269. The total amount of bidding credit discounts that may be awarded to an eligible small business is capped at $25 million, and there is a $10 million cap on the total amount of bidding credit discounts that may be awarded to a rural service provider. In addition, we adopt a $10 million cap on the overall amount of bidding credits that any winning small business bidder may apply to winning licenses in markets with a population of 500,000 or less. Based on the technical characteristics of the UMFUS bands and our analysis of past auction data, we anticipate that our caps will allow the majority of small businesses to take full advantage of the bidding credit program, thereby lowering the relative costs of participation for small businesses. Furthermore, we have adopted upfront payment amounts that are one-fourth of the amounts proposed in the Auction 103 Comment Public Notice for both categories offered in the auction, which will minimize the economic impact on small entities.

270. These procedures for the conduct of Auction 103 constitute the more specific implementation of the competitive bidding rules contemplated by Parts 1 and 30 of the Commission’s rules and the underlying rulemaking orders, including the Spectrum Frontiers Fourth R&O, 2017
Report to Congress. The Commission will send a copy of the Auction 103 Procedures Public Notice, including the Supplemental FRFA, in a report to Congress pursuant to the Congressional Review Act. In addition, the Commission will send a copy of the Auction 103 Procedures Public Notice, including the Supplemental FRFA to the Chief Counsel for Advocacy of the SBA. A copy of the Auction 103 Procedures Public Notice, and Supplemental FRFA (or summaries thereof), will also be published in the Federal Register.

Contact Information. For further information concerning this proceeding, contact the offices listed below:

Broadband Division, Wireless Telecommunications Bureau
Upper Microwave Flexible Use Service (UMFUS) questions: Simon Banyai at (202) 418-2487

Auctions Division, Office of Economics and Analytics
Auction legal questions: Mark Montano or Erik Beith at (202) 418-0660
General auction questions: Auctions Hotline at (717) 338-2868

Office of Communications Business Opportunities
For questions concerning small business inquiries: (202) 418-0990

Action by the Commission, July 10, 2019: Chairman Pai and Commissioner O’Rielly issuing separate statements; Commissioner Rosenworcel approving in part, dissenting in part and issuing a statement.

431 See generally Competitive Bidding Second Report and Order, 9 FCC Rcd at 2360-75, paras. 68-159.
433 See id. § 604(b).
## APPENDIX

### Commenter Short Names

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<th>Short Name</th>
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STATEMENT OF
CHAIRMAN AJIT PAI


December 10 is a great day for many reasons. In addition to being just fifteen days from Christmas, it’s the birthday of mathematician and computer pioneer Ada Lovelace, the publication date of The Adventures of Huckleberry Finn, and National Lager Day. And for my friends in Argentina, where I had the pleasure of visiting last week, December 10, 1983 transformed their country from dictatorship to democracy, with the inauguration of the “father of modern democracy in Argentina,” President Raúl Alfonsin.

Here in the United States, December 10, 2019 will mark another breakthrough in U.S. leadership on 5G. Three months ago, I joined the President at the White House to announce that, on that date, the Commission will begin an auction of the upper 37 GHz, 39 GHz, and 47 GHz bands, making available more spectrum for 5G. Auction 103 will be the third auction of spectrum for 5G this year and the largest in American history, releasing 3,400 megahertz of spectrum into the commercial marketplace for 5G deployment.

In my view, 5G could be one of the great moonshots of this generation. Think about a world in which speed, capacity, and lag times are effectively no longer constraints on wireless innovation. 5G could enable new services and applications that could revolutionize healthcare, transportation, agriculture, education, and many other parts of our economy and society. And it will open the door to so many other possibilities. How fast these possibilities are realized, or if they are realized at all, will depend in part on whether we enable them to happen.

The FCC is doing its part to promote U.S leadership in 5G wireless communications. In total, our auctions this year will free up for the commercial marketplace almost five gigahertz of spectrum for flexible use. That’s more spectrum than is currently used for mobile broadband by all mobile broadband providers in the United States combined.

And with today’s 2.5 GHz item, the FCC will also make valuable mid-band spectrum available soon for 5G. Speaking of, it is equal parts ironic and amusing that some continue to claim that we’re doing too little to free up mid-band spectrum, but then oppose every single initiative we’ve undertaken to do just that. You can’t demand action on mid-band spectrum and then oppose rules that make it possible to deploy 5G in the 3.5 GHz band. You can’t demand action on mid-band spectrum and then take the position that we must wait for Congress to act before we move forward on the C-band. And you can’t demand action on mid-band spectrum and then vote against an auction next year that would make 2.5 GHz spectrum available for commercial use. Or rather, you can do all of these things—but then the inescapable inference is that your real commitment is to political gamesmanship, not actual progress on mid-band spectrum.

Thank you to the dedicated staff of the Office of Economics and Analytics, Wireless Telecommunications Bureau, and the Office of General Counsel who have worked tirelessly to chart a course for American leadership in 5G. From the Office of Economics and Analytics, Margaret Wiener, Erik Salovaara, Mark Montano, Martha Stancill, Erik Beith, William Huber, Craig Bomberger, Linda Sanderson, Jill Goldberger, Shabnam Javid, Giulia McHenry, Patrick DeGraba, Debbie Smith, and Sue Sterner; from the Wireless Telecommunications Bureau, Donald Stockdale, Dana Shaffer, Joel Taubenblatt, Blaise Scinto, Simon Banyai, Jennifer Tomchin, Stephen Buenzow, Erin Fitzgerald, Jonathan Campbell, and Cecilia Sulhoff; and from the Office of General Counsel, Douglas Klein, David Horowitz, and William Richardson.
STATEMENT OF
COMMISSIONER MICHAEL O’RIELLY

Re:  Incentive Auction of Upper Microwave Flexible Use Service Licenses in the Upper 37 GHz, 39 GHz, and 47 GHz Bands for Next-Generation Wireless Services, AU Docket No. 19-59, GN Docket No. 14-177

This item is fairly straightforward in setting the parameters for the 37/39/47 GHz auction to be held later this year. Holding this auction is very good news and sound policy, as releasing more spectrum into the marketplace allows innovators and technologists to utilize it to provide wanted consumer services and products. Of the millimeter wave bands, these have been of particular interest, and perhaps more so than the 24 or 28 GHz bands for various reasons, including the amount of spectrum available, various incumbency issues, and equipment readiness. Having talked about the 37/39 GHz bands for over four and a half years and 47 GHz for three years, count me among those that are excited to get this auction up and running as soon as possible.

On a side note, having been a champion of reallocating and releasing mid-band spectrum into the marketplace, I am at a loss when some offer vague conjecture that we should just conduct a mid-band spectrum auction without providing any specifics. Are they thinking of 2.5 GHz, 3.5 GHz, C-Band, 4.9 GHz, maybe 3.1-3.55 GHz, which is still held by DOD, or something else? I have logged countless hours to repurpose 3.5 GHz and C-band for 5G wireless services, but the former requires updated auction software – which is being worked on – and the latter needs to go to order. As I have often said, I stand ready to work with anyone on substantive and constructive ideas. Moreover, I want a mid-band spectrum auction as much as anyone here, but I am not willing to needlessly delay a millimeter wave auction that is ready to go under the guise of taking unspecified action on mid-band frequencies.
STATEMENT OF 
COMMISSIONER JESSICA ROSENWORCEL
APPROVING IN PART, DISSENTING IN PART

Re: Incentive Auction of Upper Microwave Flexible Use Service Licenses in the Upper 37 GHz, 39 GHz, and 47 GHz Bands for Next-Generation Wireless Services, AU Docket No. 19-59, GN Docket No. 14-177

Sixteen countries have already auctioned spectrum specifically for the provision of 5G wireless services. They include Australia, Finland, Germany, Italy, Ireland, Japan, Kuwait, Latvia, Mexico, Oman, Qatar, Saudi Arabia, South Korea, Spain, the United Arab Emirates, and the United Kingdom. In addition, China allocated spectrum for 5G use last year.

If you comb through these efforts, one detail stands out. Every country on this list has made mid-band spectrum available for their early 5G deployments. Every single one.

But in the United States we have yet to auction a single swath of mid-band spectrum. We have brought exactly zero megahertz of mid-band airwaves to auction in the 5G age. Instead, we have focused all our early efforts on high-band spectrum. In fact, this agency auctioned two millimeter wave bands earlier this year and courtesy of today’s action, plans to auction another three millimeter wave bands later this year—a total of five different bands newly available for 5G service. But when it comes to the mid-band spectrum the rest of the world has used for early 5G efforts? We’ve auctioned nil.

It is increasingly apparent that the United States is alone in its mission to make millimeter wave the core of its domestic 5G approach. If we continue on this path—prioritizing high-band airwaves—we are going to have a serious problem. We will find ourselves on the sidelines as mid-band spectrum becomes the core of worldwide 5G service. This means less scale, higher costs, interoperability challenges, and less security as other nations’ technologies proliferate. Moreover, recent commercial launches of 5G service in the United States are confirming what we already know—that commercializing the millimeter wave will not be easy, given its propagation challenges. The network densification these airwaves require is costly. If we want to serve everywhere in the country—and not create communities of 5G haves and have-nots—we need a healthy mix of airwaves that provide both coverage and capacity, and we require them now. That means we need mid-band spectrum. It’s especially important for rural America, where the challenging economics of service presently do not support the high cost of high-band infrastructure.

The fact is we have ceded international leadership when it comes to 5G because of this dearth of mid-band spectrum. A recent report issued by the Defense Innovation Board, the United States military’s premier advisory group of academic researchers and private sector technology companies, surveyed the state of the 5G landscape and warned that the country that leads in 5G is “not likely to be the United States.”

That does not sound good. Our back of the pack approach to mid-band spectrum is leading us down the wrong road in the race to 5G. We need to change course stat.

We need a mid-band auction now. I am hardly alone in making this call. You can find it in every report issued about our 5G progress, in comments filed in every spectrum proceeding at this agency, and in countless inquiries from Capitol Hill. So it begs the question—why is this agency doubling down today on yet another high-band auction? The truth is we could schedule a mid-band auction of the 3.5 GHz band right here and right now—and we should.

So while I support today’s decision to put on the calendar an auction of the 37, 39, and 47 GHz bands, I think holding this auction before bringing mid-band spectrum to market is misguided. So I will approve in part and dissent in part.
I sincerely hope that this agency can flip its priorities and refocus on mid-band airwaves. The rest of the world is leaving us behind. It’s time to reclaim the leadership we have lost and make real progress with the deployment of 5G service to every community, everywhere across the country.