

**FCC FACT SHEET\***  
**Competitive Bidding Procedures for Auction 105**  
**(Priority Access Licenses for the 3550-3650 MHz Band)**  
Public Notice – AU Docket No. 19-244

**Background:** The FCC has established rules to govern the Citizens Broadband Radio Service in the 3550-3700 MHz band (3.5 GHz), including Priority Access Licenses (PALs) in the 3550-3650 MHz band, for the purpose of promoting the development of 5G, the Internet of Things, and other advanced spectrum-based services for the benefit of the public.

This Public Notice would propose application and bidding procedures for the auction of PALs. Bidding in the auction is scheduled to commence on June 25, 2020. The auction, designated Auction 105, will offer seven PALs in each county-based license area, for a total of 22,631 PALs nationwide. Each PAL will consist of a 10-megahertz unpaired channel. PALs are 10-year renewable licenses. Consistent with the Commission’s rules that permit Priority Access Licensees to aggregate up to four PALs in any license area at any given time, bidders in Auction 105 will be allowed to bid for up to four generic blocks of spectrum per county.

**What the Public Notice Would Do:**

- Propose to conduct Auction 105 as an ascending clock auction, in which bidders indicate their demands for generic license blocks in specific counties. The proposed procedures for Auction 105 would differ from the procedures in Auctions 102 and 103 as follows:
  - There would be no assignment phase in Auction 105. Priority Access Licensees will be authorized to use frequencies associated with their PALs as dynamically assigned by frequency coordinators, known as Spectrum Access Systems.
  - The Public Notice would seek comment on a proposal to give any bidder the option to bid at a Cellular Market Area (CMA) level in the 172 CMAs that are classified as Metropolitan Statistical Areas and comprise multiple counties.
  - The Public Notice would propose to incorporate an “activity upper limit” that would allow a bidder to submit bids that exceed its current bidding eligibility to help mitigate the possibility of losing bidding eligibility under certain circumstances.
- Propose bidding credit caps of \$25 million for small businesses and \$10 million for rural service providers, as well as a \$10 million cap on the overall amount of bidding credits that a small business bidder may apply to winning licenses in smaller markets.

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\* This document is being released as part of a “permit-but-disclose” proceeding. Any presentations or views on the subject expressed to the Commission or its staff, including by email, must be filed in AU Docket No. 19-59, which may be accessed via the Electronic Comment Filing System (<https://www.fcc.gov/ecfs>). Before filing, participants should familiarize themselves with the Commission’s *ex parte* rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission’s meeting. See 47 CFR § 1.1200 *et seq.*



# PUBLIC NOTICE

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## AUCTION OF PRIORITY ACCESS LICENSES FOR THE 3550-3650 MHz BAND

### COMMENT SOUGHT ON COMPETITIVE BIDDING PROCEDURES FOR AUCTION 105

BIDDING IN AUCTION 105 SCHEDULED TO BEGIN JUNE 25, 2020\*

AU Docket No. 19-244

Comment Date: [[October 28, 2019]]  
Reply Comment Date: [[November 12, 2019]]

By the Commission:

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\* This document has been circulated for tentative consideration by the Commission at its September 26, 2019 open meeting. The issues referenced in this document and the Commission’s ultimate resolution of those issues remain under consideration and subject to change. This document does not constitute any official action by the Commission. However, the Chairman has determined that, in the interest of promoting the public’s ability to understand the nature and scope of issues under consideration, the public interest would be served by making this document publicly available. The FCC’s *ex parte* rules apply and presentations are subject to “permit-but-disclose” *ex parte* rules. See, e.g., 47 CFR §§ 1.1206, 1.1200(a). Participants in this proceeding should familiarize themselves with the Commission’s *ex parte* rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission’s meeting. See 47 CFR §§ 1.1200(a), 1.1203.

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## I. INTRODUCTION

1. By this Public Notice, we seek comment on the procedures to be used for Auction 105, the auction of Priority Access Licenses (PALs) in the 3550-3650 MHz band.<sup>1</sup> Bidding in the auction is scheduled to commence on June 25, 2020. By initiating the pre-bidding process for assigning licenses in Auction 105, we take an important step toward releasing flexible-use mid-band spectrum to the market and furthering deployment of fifth-generation wireless, the Internet of Things, and other advanced spectrum-based services in the United States.

## II. LICENSES TO BE OFFERED IN AUCTION 105

### A. Description of Licenses

2. Auction 105 will offer seven PALs in each county-based license area.<sup>2</sup> Each PAL consists of a 10-megahertz unpaired channel within the 3550-3650 MHz band. The auction will offer a total of 22,631 PALs.<sup>3</sup> PALs are 10-year renewable licenses.<sup>4</sup> Priority Access Licensees may hold up to

<sup>1</sup> See *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, GN Docket No. 12-354, Report and Order, 30 FCC Rcd 3959 (2015) (*2015 Report and Order*); *Promoting Investment in the 3550-3700 MHz Band*, GN Docket No. 17-258, Report and Order, 33 FCC Rcd 10598 (2018) (*2018 3.5 GHz Order*).

<sup>2</sup> 47 CFR § 96.13; *2018 3.5 GHz Order*, 33 FCC Rcd at 10643, para. 82. For purposes of this auction, counties shall be defined using the United States Census Bureau’s data reflecting county legal boundaries and names valid through January 1, 2017. See 47 CFR § 96.3. See also *2018 3.5 GHz Order*, 33 FCC Rcd at 10607, para. 19, n. 71. Information regarding PALs, including (1) a map and list of 2017 counties, (2) a map and list of the proposed 172 CMA-level bidding areas, and (3) an interactive map of both counties and CMA-level biddings areas, can be found at <https://www.fcc.gov/35-ghz-band-overview>. We will not be issuing Priority Access Licenses in the Gulf of Mexico.

<sup>3</sup> A summary of the licenses offered in Auction 105 is available in Attachment A to this Public Notice. Due to the large number of licenses offered in Auction 105, the complete list of licenses to be offered in in Auction 105 will be provided in an electronic format only. The separate “Attachment A” files will be available on the Auction 105 website at [www.fcc.gov/auction/105](http://www.fcc.gov/auction/105).

<sup>4</sup> 47 CFR § 96.25; *2018 3.5 GHz Order*, 33 FCC Rcd at 10623, para. 46.

four 10-megahertz channel licenses (out of a total of seven) within the band in any license area at any given time.<sup>5</sup>

3. A frequency coordinator called a Spectrum Access System (SAS) will assign the specific channel for a particular licensee on a dynamic basis.<sup>6</sup> Individual PALs will not be identified by specific spectrum blocks. Although Priority Access Licensees may request a particular channel or frequency range from an SAS following the auction, bidders should be mindful that licensees are not guaranteed a particular assignment.<sup>7</sup> Potential bidders should also understand that an SAS may dynamically reassign a PAL to a different channel as needed to accommodate a higher priority Incumbent Access user.<sup>8</sup> An SAS will “assign geographically contiguous PALs held by the same Priority Access Licensee to the same channels in each geographic area” and “assign multiple channels held by the same Priority Access Licensee to contiguous frequencies within the same License Area,” to the extent feasible.<sup>9</sup> However, an SAS may temporarily reassign individual PALs to non-contiguous channels to the extent necessary to protect incumbent users from harmful interference or if necessary to perform its required functions.<sup>10</sup>

4. Each Priority Access Licensee must register its Citizens Broadband Radio Service Devices (CBSDs) with an SAS before operating those devices in the band.<sup>11</sup> A CBSD registration includes its geographic location, antenna height, CBSD class, requested authorization status, FCC identification number, call sign, user contact information, air interface technology, unique manufacturer’s serial number, sensing capabilities (if supported), and information on its deployment profile.<sup>12</sup> An SAS relies on this information to coordinate access for Priority Access Licensees and General Authorized Access (GAA) users,<sup>13</sup> and an SAS Administrator may charge Priority Access Licensees and GAA users a reasonable fee for its services.<sup>14</sup>

#### **A. Sharing in 3.5 GHz Band**

5. The 3.5 GHz band is governed by a three-tiered spectrum authorization framework.<sup>15</sup> The three tiers of authorization are: Incumbent Access, Priority Access, and General Authorized Access

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<sup>5</sup> 47 CFR § 96.31(a); *2015 Report and Order*, 30 FCC Rcd at 3998, para. 117; *2018 3.5 GHz Order*, 33 FCC Rcd at 10653-54, para. 107.

<sup>6</sup> *2018 3.5 GHz Order*, 33 FCC Rcd at 10643-44, para. 82. 47 CFR § 96.25.

<sup>7</sup> *2018 3.5 GHz Order*, 33 FCC Rcd at 10643-44, para. 82, n. 327.

<sup>8</sup> 47 CFR §§ 96.25(b), 96.59(c); *2018 3.5 GHz Order*, 33 FCC Rcd at 10644, para. 83.

<sup>9</sup> 47 CFR §§ 96.25(b), 96.59(b); *2018 3.5 GHz Order*, 33 FCC Rcd at 10643-44, paras. 80-82.

<sup>10</sup> 47 CFR §§ 96.25(b), 96.59; *2015 Report and Order*, 30 FCC Rcd at 3390, para. 93.

<sup>11</sup> 47 CFR § 96.23(b). General Authorized Access (GAA) users must also register their Citizen Broadband Radio Service Devices (CBSDs). *See* 47 CFR § 96.33(b). CBSDs are “Fixed Stations, or networks of such stations, that operate on a Priority Access or General Authorized Access basis in the Citizens Broadband Radio Service consistent with this rule part. For CBSDs which comprise multiple nodes or networks of nodes, CBSD requirements apply to each node even if network management and communication with the SAS is accomplished via a single network interface. End User Devices are not considered CBSDs.” 47 CFR § 96.3.

<sup>12</sup> 47 CFR § 96.39(c). When registering with an SAS, Category A CBSDs must also transmit whether the device will be operated indoors or outdoors. 47 CFR § 96.43(b). When registering with an SAS, Category B CBSDs must also transmit antenna gain, beamwidth, azimuth, downtilt angle, and antenna height above ground level. 47 CFR § 96.45(d).

<sup>13</sup> 47 CFR § 96.53.

<sup>14</sup> 47 CFR § 96.65(a). Upon request, the Commission will review SAS fees and can require changes to the fees if we find the fees to be unreasonable. *See* 47 CFR § 96.65(b).

<sup>15</sup> 47 CFR § 96.1(b); *2015 Report and Order*, 30 FCC Rcd at 3978, para. 54.

(GAA).<sup>16</sup> SASs will facilitate sharing among the three tiers of authorized users.<sup>17</sup> Incumbent users receive protection from Priority Access Licensees and GAA users, while Priority Access Licensees receive protection from GAA users.<sup>18</sup> The three-tiered structure is designed to accommodate a variety of commercial uses on a shared basis with incumbent federal and non-federal uses of the band. The Citizens Broadband Radio Service includes Priority Access Licensees and GAA users in the 3550-3650 MHz band and GAA users in the 3550-3700 MHz band (collectively, the 3.5 GHz band).<sup>19</sup>

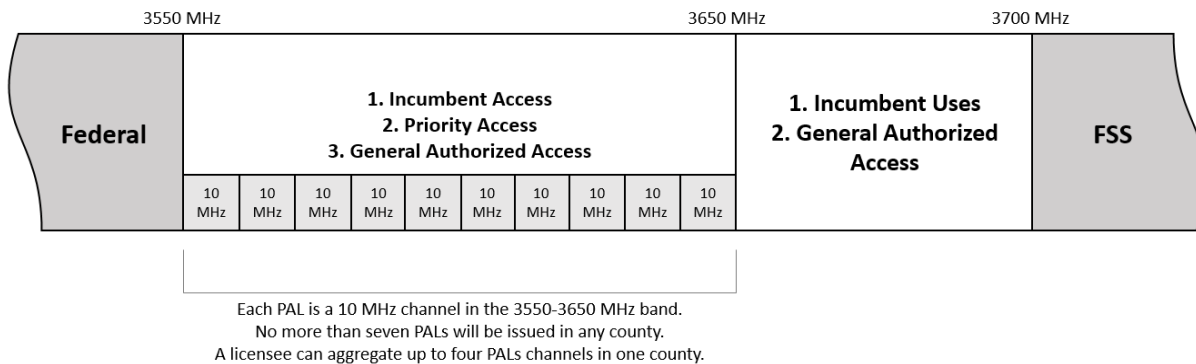
6. Table 1 shows the tiered structure of the 3550-3650 MHz band.

**Table 1: 3550-3650 MHz Band Tiered Structure**

3550 MHz	3600 MHz	3650 MHz
<b>Tier 1: Federal Radiolocation and Federal Aeronautical Radionavigation</b>		
	<b>Tier 1: Non-Federal Grandfathered Fixed Satellite Service (space-to-Earth)</b>	
<b>Tier 2: Priority Access Licenses</b>		
<b>Tier 3: General Authorized Access</b>		

7. Figure 1 shows the band plan for the 3.5 GHz band.

**Figure 1: 3.5 GHz Band Plan**



8. Incumbent users, which have the highest priority, include federal radiolocation users in the 3550-3650 MHz band and non-Federal grandfathered Fixed Satellite Service (FSS) earth stations in the 3600-3650 MHz band.<sup>20</sup>

9. The 3550-3650 MHz band segment is allocated for use by Department of Defense (DoD) radar systems on a primary basis and by Federal non-military Radiolocation Service on a secondary basis.<sup>21</sup> Federal aeronautical radionavigation (ground-based) stations may also be authorized on a

<sup>16</sup> 47 CFR § 96.1(b); 2015 Report and Order, 30 FCC at 3978, para. 54. The Citizens Broadband Radio Service includes Priority Access and GAA tiers of service.

<sup>17</sup> 47 CFR § 96.63; 2015 Report and Order, 30 FCC Rcd at 4051, para. 311.

<sup>18</sup> 47 CFR §§ 96.1(b), 96.15, 96.17, 96.21, 96.35.

<sup>19</sup> 47 CFR § 96.1(b).

<sup>20</sup> 47 CFR §§ 96.3, 96.15, 96.17, 96.19, 96.21. See 2015 Report and Order, 30 FCC Rcd at 3964-3967, paras. 15-22, 30-43. Note that for a finite period, grandfathered terrestrial wireless licensees in the 3650-3700 MHz band are in the “Incumbent Access” tier receiving protection. However, the 3650-3700 MHz band is not available for PALs. Therefore, protections for the grandfathered terrestrial wireless licensees are outside the scope of this Public Notice.

<sup>21</sup> 47 CFR§ 2.106, note G59; 2015 Report and Order, 30 FCC Rcd at 3964, para. 15.

primary basis in the 3500-3650 MHz band when accommodation in the 2700-2900 MHz band is not technically or economically feasible.<sup>22</sup> Non-Federal licensees, including Priority Access Licensees, may not cause harmful interference to, or claim protection from federal stations in the aeronautical radionavigation (ground-based) and radiolocation services in the 3550-3650 MHz band.<sup>23</sup> The National Telecommunications and Information Administration (NTIA) may approve frequency assignments for new and modified Federal stations at current or new locations.<sup>24</sup>

10. In the 3550-3650 MHz band, non-Federal stations in the Radiolocation Service that were licensed or had pending applications prior to July 23, 2015 may operate on a secondary basis to the Citizens Broadband Radio Service until the end of the equipment's useful lifetime.<sup>25</sup> FSS (space-to-Earth) earth station operations in the 3600-3650 MHz band may operate on a primary basis if the Commission authorized operation prior to or granted an application filed prior to July 23, 2015 and if the FSS licensee constructed the subject earth station(s) within 12 months of the initial authorization.<sup>26</sup> Any new FSS (space-to-Earth) earth stations in the 3600-3650 MHz band assigned after July 23, 2015, are authorized on a secondary basis.<sup>27</sup> Regardless of primary or secondary status, all non-Federal FSS (space-to-Earth) operations in the 3600 to 3650 MHz band are limited to international inter-continental systems and subject to case-by-case electromagnetic compatibility analysis.<sup>28</sup>

11. GAA users may operate in the 3550-3700 MHz band,<sup>29</sup> but are not guaranteed protection from interference. GAA users may operate in the 3650-3700 MHz band and on any frequencies not in use by Priority Access Licensees or Tier 1 licensees in the 3550-3560 MHz band.<sup>30</sup> The GAA tier is licensed-by-rule to permit open, flexible access to the band for the widest possible group of potential users.<sup>31</sup>

12. Each potential bidder is solely responsible for investigating and evaluating all technical and marketplace factors that may have a bearing on the potential uses of a PAL that it may seek in Auction 105. In addition to the typical due diligence considerations that we encourage of bidders in all auctions,<sup>32</sup> we call particular attention in Auction 105 to the spectrum-sharing issues described above. Each applicant should closely follow releases from the Commission concerning these issues and consider carefully the technical and economic implications for commercial use of the 3.5 GHz band.

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<sup>22</sup> 47 CFR § 2.106, note G110; *2015 Report and Order*, 30 FCC Rcd at 3964-65, para. 15.

<sup>23</sup> 47 CFR §§ 2.106, note US433, 96.15(a).; *2015 Report and Order*, 30 FCC Rcd at 4037, para. 255.

<sup>24</sup> 47 CFR § 96.15(a)(3). The exclusion zones are shown at <https://www.ntia.doc.gov/category/3550-3650-mhz>. NTIA will notify the Commission in writing if and when the list of radiolocation sites is updated. *See* 47 CFR § 96.15(a)(3).

<sup>25</sup> 47 CFR § 2.106, note US105; *2015 Report and Order*, 30 FCC Rcd at 3974, para 40.

<sup>26</sup> 47 CFR § 2.106, note US107(a); *2015 Report and Order*, 30 FCC Rcd at 3973, para 37.

<sup>27</sup> 47 CFR § 2.106, note US107(b); *2015 Report and Order*, 30 FCC Rcd at 3973, para 37.

<sup>28</sup> 47 CFR § 2.106, note US245.

<sup>29</sup> 47 CFR § 96.11(a)(1); *2015 Report and Order*, 30 FCC Rcd at 4011, para. 159.

<sup>30</sup> 47 CFR § 96.13; *2015 Report and Order*, 30 FCC Rcd at 3982, para. 67.

<sup>31</sup> 47 CFR § 96.33; *2015 Report and Order*, 30 FCC Rcd at 4011, paras. 159-60.

<sup>32</sup> *See, e.g., Auctions of Upper Microwave Flexible Use Licenses for Next-Generation Wireless Services; Comment Sought on Competitive Bidding Procedures for Auctions 101 (28GHz) and 102 (24 GHz); Bidding in Auction 101 Scheduled to Begin November 14, 2018*, 33 FCC Rcd 4103, at 4116-17, paras. 36-41 (2018) (*Auctions 101-102 Comment Public Notice*).

### III. PROPOSED PRE-BIDDING PROCEDURES

#### A. Information Procedures During the Auction Process

13. Consistent with most recent spectrum auctions, we propose to limit information available in Auction 105 in order to prevent the identification of bidders placing particular bids until after the bidding has closed.<sup>33</sup> More specifically, the Commission proposes not to make public until after bidding has closed: (1) the licenses or license areas that an applicant selects for bidding in its auction application (FCC Form 175); (2) the amount of any upfront payment made by or on behalf of an applicant for Auction 105; (3) an applicant's bidding eligibility; and (4) any other bidding-related information that might reveal the identity of the bidder placing a bid.

14. Under these proposed limited information procedures (sometimes also referred to as anonymous bidding), information to be made public after each round of bidding in Auction 105 includes, for each county: the aggregate demand for licenses, the prices at the end of the last completed round, and the prices for the next round. The identities of bidders placing specific bids and the net bid amounts (reflecting bidding credits) would not be disclosed until after the close of bidding.

15. Bidders would have access to additional information related to their own bidding and bid eligibility. For example, bidders would be able to view their own level of eligibility, before and during the auction, through the FCC auction bidding system.

16. After the close of bidding, bidders' county selections and the number of licenses selected for each county, upfront payment amounts, bidding eligibility, bids, and other bidding-related actions would be made publicly available.

17. We seek comment on the above details of our proposal for implementing limited information procedures, or anonymous bidding, in Auction 105. Commenters opposing the use of anonymous bidding in Auction 105 should explain their reasoning and propose alternative information rules.

#### B. Bidding Credit Caps

18. The Commission administers its bidding credit programs to promote small business and rural service provider participation in auctions and in the provision of spectrum-based services.<sup>34</sup> In 2018, the Commission determined that it would offer bidding credits in the 3.5 GHz band auction to improve the ability of small businesses and rural service providers to attract the capital necessary to meaningfully acquire PALs.<sup>35</sup> Specifically, the Commission adopted the gross revenue thresholds that define the eligibility tiers for the small business bidding credit,<sup>36</sup> as revised by the *2015 Part 1 Report and Order*,<sup>37</sup>

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<sup>33</sup> See, e.g., *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) (*Auction 1000 Bidding Procedures Public Notice*); *Auction of Advanced Wireless Services (AWS-3) Licenses Scheduled for November 13, 2014; Notice and Filing Requirements, Reserve Prices, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 97*, MB Docket No. 15-146; AU Docket No. 14-252; WT Docket No. 12-269; GN Docket No. 12-268, Public Notice, 29 FCC Rcd 8386, 8429-30, para. 150 (WTB 2014) (*Auction 97 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*, AU Docket No. 10-248, Public Notice, 26 FCC Rcd 3342, 3372-73, paras. 126-29 (WTB 2011); *Auction of Advanced Wireless Services Licenses Scheduled for June 29, 2006; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedures for Auction No. 66*, AU Docket No. 06-30, Public Notice, 21 FCC Rcd 4562, 4600-05, paras. 140-57 (2006); see also 47 CFR § 1.2104(h).

<sup>34</sup> See 47 U.S.C. § 309(j)(4)(D); see also *id.* § 309(j)(3)(A)-(B).

<sup>35</sup> *2018 3.5 GHz Order*, 33 FCC Rcd at 10645-46, para. 86.

<sup>36</sup> *Id.* at 10647, para. 89, citing 47 CFR § 1.2110(f)(2)(i)(B), (C).



as well as a rural service provider bidding credit program.<sup>38</sup> For the 3.5 GHz band, the Commission determined that an entity with average annual gross revenues for the preceding three years not exceeding \$55 million will be eligible to qualify as a “small business” for a bidding credit of 15%, while an entity with average annual gross revenues for the preceding three years not exceeding \$20 million will be eligible to qualify as a “very small business” for a bidding credit of 25%,<sup>39</sup> consistent with the standardized schedule in Part 1 of our rules.<sup>40</sup> Additionally, the Commission determined that entities providing commercial communication services to a customer base of fewer than 250,000 combined wireless, wireline, broadband, and cable subscribers in primarily rural areas will be eligible for the 15% rural service provider bidding credit in the 3.5 GHz band.<sup>41</sup>

19. Consistent with the Commission’s decision in the *2015 Part 1 Report and Order* to set a reasonable cap on the total amount of bidding credits that an eligible small business or rural service provider may be awarded in any auction, we now seek comment on establishing the caps on the total amount of bidding credits that an eligible small business or rural service provider may be awarded for Auction 105.<sup>42</sup> As the Commission explained in the *2015 Part 1 Report and Order*, the total amount of the bidding credit cap for small businesses will not be less than \$25 million, and the bidding credit cap for rural service providers will not be less than \$10 million.<sup>43</sup>

20. For Auction 105, we propose a \$25 million cap on the total amount of bidding credits that may be awarded to an eligible small business, and a \$10 million cap on the total amount of bidding credits that may be awarded to an eligible rural service provider.<sup>44</sup> These proposals are consistent with our recent decisions in Auctions 101, 102,<sup>45</sup> and 103.<sup>46</sup> As in those auctions, we believe that the range of

(Continued from previous page) \_\_\_\_\_

<sup>37</sup> *Updating Part 1 Competitive Bidding Rules et al.*, WT Docket Nos. 14-170 and 05-211; GN Docket No. 12-268, Report and Order, Order on Reconsideration of the First Report and Order, Third Order on Reconsideration of the Second Report and Order, Third Report and Order, 30 FCC Rcd 7493, at 7524-25, paras. 73-74 (*2015 Part 1 Report and Order*).

<sup>38</sup> *2018 3.5 GHz Order*, 33 FCC Rcd at 10647-48, para. 90.

<sup>39</sup> *Id.*, 33 FCC Rcd at 10647, para. 89.

<sup>40</sup> See 47 CFR § 1.2110(f)(2)(i)(B), (C). In the *2015 Part 1 Report and Order*, the Commission adopted a process for establishing a reasonable monetary limit or cap on the amount of bidding credits that an eligible small business or rural service provider may be awarded in any particular auction. See *2015 Part 1 Report and Order*, 30 FCC Rcd at 7539-44, paras. 110-21. We established the parameters to implement a bidding credit cap for future auctions on an auction-by-auction basis. *Id.*

<sup>41</sup> *2018 3.5 GHz Order*, 33 FCC Rcd at 10647-48, para. 90; 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 1 Report and Order*, 30 FCC Rcd at 7529, para. 85. The Commission defined “rural area” as a county with a population density of 100 persons or fewer per square mile. *2015 Part 1 Report and Order*, 30 FCC Rcd at 7536-37, para. 104 & n.340.

<sup>42</sup> See *2015 Part 1 Report and Order*, 30 FCC Rcd at 7541, 7544, paras. 114, 119.

<sup>43</sup> *Id.* at 7541, para. 114; see also 47 CFR § 1.2110(f)(2)(ii), (4)(ii).

<sup>44</sup> An entity is not eligible for a rural service provider bidding credit if it has already claimed a small business bidding credit. 47 CFR § 1.2110(f)(4)(i).

<sup>45</sup> *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*, AU Docket No. 18-85, Public Notice, 33 FCC Rcd 7575, 7609-10, para. 93 (2018) (*Auction 101-102 Procedures Public Notice*).

<sup>46</sup> *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, Public Notice, FCC 19-63, at 27-28, para. 79 (July 10, 2019) (*Auction 103 Procedures Public Notice*).



potential use cases suitable for spectrum in the 3.5 GHz band, combined with the relatively small geographic areas for PALs, may permit deployment of smaller scale networks with lower total costs.<sup>47</sup> Moreover, past auction data suggests that the proposed caps will allow the substantial majority of eligible businesses in the auction to take advantage of the bidding credit program.<sup>48</sup> In addition, to create parity in Auction 105 among eligible small businesses and rural service providers competing against each other in small markets, we propose a \$10 million small markets cap on the overall amount of bidding credits that any winning small business bidder may apply to licenses won in counties located within any Partial Economic Area (PEA) with a population of 500,000 or less.<sup>49</sup>

21. We seek comment on these proposed caps. Specifically, do the expected capital requirements associated with operating in the 3.5 GHz band, the potential number and value of PALs, past auction data, or any other considerations justify the proposed caps or a higher cap for either type of bidding credit? Commenters are encouraged to identify circumstances and characteristics of this auction that should guide us in establishing bidding credit caps, and to provide specific, data-driven arguments in support of their proposals.

22. We remind applicants applying for designated entity bidding credits that they should take account of the requirements of the Commission's rules and implementing orders regarding *de jure* and *de facto* control of such applicants.<sup>50</sup> These rules include a prohibition, which applies to all applicants (whether or not seeking bidding credits), against changes in ownership of the applicant that would constitute an assignment or transfer of control.<sup>51</sup> 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 ensure compliance with the Commission's rules applicable to the award of bidding credits prior to the conduct of this auction, which will involve competing bids from those with and without bidding credits, and thus preserve the integrity of the auctions process. We also believe that this will meet the objectives that the Commission must consider in awarding licenses through the competitive bidding process, including "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

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<sup>47</sup> See, e.g., *2018 3.5 GHz Order*, 33 FCC at 1062, para. 27 ("County-sized PALs will 'provide small, rural providers with a reasonable opportunity to obtain spectrum and . . . promote more effective use of spectrum for actual service delivery in rural areas.'"), quoting Letter from Jill Canfield, Vice President of Legal & Industry, Assistant General Counsel, NTCA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 17-258, at 2 (filed June 19, 2018).

<sup>48</sup> See *Auctions 101-102 Comment Public Notice*, 33 FCC Rcd at 4115, n. 61, citing *2015 Part 1 Report and Order*, 30 FCC Rcd at 7541, para. 115 n. 367, and *Incentive Auction Closing and Channel Reassignment Public Notice et al.*, MB Docket No. 16-306; AU Docket No. 14-252; WT Docket No. 12-269; GN Docket No. 12-268, Public Notice, 32 FCC Rcd 2786, Appx. B (WTB/MB 2017) (noting that a \$25 million cap would have allowed 95% of small businesses in Auction 66, 98% of small businesses in Auction 73, 73% of small businesses in Auction 97, and 75% of small businesses in the Broadcast Incentive Auction to realize the full value of their bidding credits based on gross winning bids, and that 100% of rural service providers that claimed bidding credits in the Incentive Auction fell below the \$10 million cap).

<sup>49</sup> Markets that are subject to the small market bidding credit cap are those PEAs with a population of 500,000 or less, which corresponds to PEAs 118–416, excluding PEA 412 (Puerto Rico). This proposal is consistent with the approach adopted by the Commission in the Broadcast Incentive Auction. See *2015 Part 1 Report and Order*, 30 FCC Rcd at 7546–47, paras. 127–28. There are 298 PEAs with populations of less than 500,000. These PEAs comprise 1926 counties available to be licensed as PALs, which, accordingly, will be subject to the small markets cap.

<sup>50</sup> See, e.g., 47 CFR §§ 1.2110-11.

<sup>51</sup> *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).

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.”<sup>52</sup>

#### IV. PROPOSED BIDDING PROCEDURES

##### A. Clock Auction Design

23. We propose to conduct Auction 105 using an ascending clock auction design, in which bidders indicate their demands for generic license blocks in specific geographic areas—in this case, counties. Our proposed clock auction format would proceed in a series of rounds, with bidding being conducted simultaneously for all spectrum blocks in all counties available in the auction. During each bidding round, we would announce a per-block price in each county, and qualified bidders would submit, for each county for which they wish to bid, the number of blocks they seek at the clock prices associated with the current round. Bidding rounds would be open for predetermined periods of time. Bidders would be subject to activity and eligibility rules that govern the pace at which they participate in the auction.

24. Under our proposal, in each county, the clock price for a generic license block would increase from round to round if bidders indicate total demand in that county that exceeds the number of blocks available. The bidding rounds would continue until, for all counties, the total number of blocks that bidders demand does not exceed the supply of available blocks. At that point, those bidders indicating demand for a block at the final price would be deemed winning bidders.

25. The clock auction design we propose for Auction 105 is similar in many respects to that used by the Commission for Auctions 1002<sup>53</sup> and 102,<sup>54</sup> and that will be used for Auction 103,<sup>55</sup> but it would differ in several important respects.<sup>56</sup> First, no assignment phase will be held to assign frequency-specific licenses, as was done in previous auctions, because Priority Access Licensees will not be assigned frequency-specific licenses, but will be authorized to use frequencies associated with their PALs as dynamically assigned by SASs.<sup>57</sup> Second, although the geographic licensing areas will be counties, we seek comment on a proposal to allow any bidder to elect to bid at a Cellular Market Area (CMA)-level for certain large CMAs rather than bidding separately for the counties within the CMA. We seek comment on bid incrementing and processing procedures to accommodate CMA-level bidding.<sup>58</sup> These approaches could permit greater flexibility for bidders seeking to serve areas larger than a county. Third, we propose to modify the bidding activity rules that were used in our prior clock auctions to provide a safeguard against a bidder losing bidding eligibility under certain circumstances.<sup>59</sup>

26. We direct the Office of Economics and Analytics (OEA), in conjunction with the Wireless Telecommunications Bureau (Bureau), to prepare and release, concurrent with this Public

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<sup>52</sup> 47 U.S.C. § 309(j).

<sup>53</sup> See *Auction 1000 Bidding Procedures Public Notice*, 30 FCC Rcd at 9042-9095, paras. 132-258.

<sup>54</sup> *Auction 101-102 Bidding Procedures Public Notice*, 33 FCC Rcd 7575, at 7644-7658, paras. 215-284.

<sup>55</sup> *Auction 103 Procedures Public Notice* at 49-68, paras. 153-236.

<sup>56</sup> In addition to the design differences we address here, we will use a new auction bidding system in order to accommodate generic blocks in auction with the largest number of license areas ever offered by the Commission to date. *2018 3.5 GHz Order*, 33 FCC Rcd at 10614-16, para. 31.

<sup>57</sup> 47 CFR § 96.13.

<sup>58</sup> There are 734 CMAs (Cellular Market Areas) in the US, of which—not including the Gulf of Mexico—305 are classified as MSAs (Metropolitan Statistical Areas) and 428 are classified as RSAs (Rural Service Areas). Proposed procedures for CMA-level bidding are set forth in [[sections xxx (Generic License Blocks; Acceptable Bids; and Bids to Change Demand and Bid Processing).]]

<sup>59</sup> This proposal is set forth in section [[xx (Activity Rule, Activity Upper Limit, and Reducing Eligibility).]]

Notice, a technical guide supplementing the information in this notice and including the mathematical details and algorithms of the proposed auction design.<sup>60</sup>

## **B. Generic License Blocks**

27. According to the *2018 3.5 GHz Order*, the 70 megahertz of spectrum designated for PALs in the 3550-3650 MHz band will be licensed in seven generic 10-megahertz blocks by county. Accordingly, in the auction, seven generic block licenses will be available for bidding in each county.

28. *Limit on number of blocks per bidder.* In the *2018 3.5 GHz Order*, we affirmed the Commission's previous decision to impose a spectrum aggregation limit for PALs of 40 megahertz (i.e., four PALs) in any geographic area at any point in time.<sup>61</sup> Consistent with this limit on the number of blocks that a single entity can hold in any single county, the bidding system will limit to four the quantity of blocks that a bidder can demand in any given area at any point in the auction. Therefore, in each bidding round, a bidder will have the opportunity to bid for up to four generic blocks of spectrum per county.

29. *County-level or CMA-level bidding.* As indicated in the *2018 3.5 GHz Order*,<sup>62</sup> we seek comment on proposed procedures that could give greater bidding flexibility to bidders interested in serving areas larger than a county.<sup>63</sup> Under this proposal, a bidder could elect prior to the start of the bidding to bid at a CMA-level for blocks in all of the counties comprising certain large CMAs.<sup>64</sup> A bid at the CMA-level would indicate demand for a single quantity of blocks for every county in the CMA. If a bidder is bidding at the CMA level and wins blocks in the CMA, the bidder would win the same number of blocks specified in the bid in each of the counties in the CMA.<sup>65</sup> If a bidder elects CMA-level bidding for a CMA, the bidder would forego the opportunity to bid also at the county level for the individual counties in that CMA for the duration of Auction 105.

30. Since the benefits to bidders of being able to bid for an aggregation of counties, rather than having to bid for the counties separately, would likely be greatest for large metropolitan areas,<sup>66</sup> we propose that CMA-level bidding, subject to the conditions and procedures we specify, be permitted only for the top CMAs that include more than one county.<sup>67</sup> Where the benefits of bidding for an aggregation of counties are likely to be less significant, we propose to maintain procedures for county-level bidding only. Accordingly, we propose to allow a bidder to elect CMA-level bidding for the 172 CMAs that are

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<sup>60</sup> The *Auction 105 Technical Guide* details proposals and provides examples for Auction 105.

<sup>61</sup> *2018 3.5 GHz Order*, 33 FCC Rcd at 10653-54, paras. 105-107, citing *2015 Report and Order*, 30 FCC Rcd at 3998, para. 117.

<sup>62</sup> *Id.* at 10621, para. 40.

<sup>63</sup> *Id.* The Order anticipated seeking comment on procedures for a "form of package bidding consistent with proposals for other bidding procedures." Since the procedures proposed here for CMA-level bidding differ significantly from most package bidding implementations, we do not refer to them here as "package bidding."

<sup>64</sup> PALs will be licensed on a county basis regardless of whether demands for the counties in a specific CMA are expressed through CMA-level or county-by-county bidding.

<sup>65</sup> For example, if an entity bids successfully on four channels in CMA-60 that covers Orange, Osceola, and Seminole counties in Florida, then the Commission would issue twelve licenses. After the auction, the licensee would hold four 10 megahertz channel licenses within the 3550-3650 MHz band in each of the three counties.

<sup>66</sup> *See id.*, citing Letter from Rebecca Murphy Thompson, Executive Vice President and General Counsel, CCA, and Scott K. Bergmann, Senior Vice President, Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 17-258, at 1 (filed Apr. 20, 2018) (arguing that using MSAs in would minimize burdens for applicants interested in a larger footprint in urban areas).

<sup>67</sup> For purposes of Auction 105, we have used the 1992 CMA markets, adjusted for changes to county boundaries since that time. *See 2018 3.5 GHz Order*, 33 FCC Rcd at 10621, para. 40, n. 162. For a representation of the counties and the CMA-level bid proposals, including which counties are in each CMA, *see* <https://www.fcc.gov/35-ghz-band-overview>.

classified as Metropolitan Statistical Areas (MSAs) and that incorporate multiple counties.<sup>68</sup> A bidder that does not elect CMA-level bidding for a given CMA would be able to bid for any or all of the counties in the CMA individually. A bidder would only be able to bid for all other counties—those in CMAs classified as Rural Service Areas (RSAs) and single-county MSAs—on a county-by-county basis.

31. Under this proposal to permit CMA-level bidding, a bidder would be permitted to elect CMA-level bidding for a given CMA only if it has selected all the counties in that CMA on its Form 175. Further, its initial eligibility must be sufficient to bid for at least one block within the CMA (i.e., one block in each county in the CMA).

32. We seek comment on this proposal for CMA-level bidding generally and on the specific implementation procedures we propose.

### **C. Bidding Rounds**

33. Under the proposed clock auction format, Auction 105 would consist of sequential bidding rounds, each followed by the release of round results. The initial bidding schedule would be announced in a public notice to be released at least one week before the start of bidding.

34. We will conduct Auction 105 over the Internet. Bidders will upload bids in a specified file format for processing by the FCC auction bidding system.

35. Under our proposal, OEA would retain the discretion to adjust the bidding schedule in order to foster an auction pace that reasonably balances speed with the bidders' need to study round results and adjust their bidding strategies. Such adjustments may include changes in the amount of time for bidding rounds, the amount of time between rounds, or the number of rounds per day, and would depend upon bidding activity and other factors. We seek comment on this proposal. Commenters should address the role of the bidding schedule in managing the pace of the auction and should specifically discuss the tradeoffs in managing auction pace by bidding schedule changes, by changing the activity requirement percentage or bid increment parameters, or by using other means.

### **D. Stopping Rule**

36. We propose a simultaneous stopping rule for Auction 105, under which all blocks in all counties would remain available for bidding until the bidding stops in every county.<sup>69</sup> Specifically, we propose that bidding close for all blocks after the first round in which there is no excess demand in any county.<sup>70</sup> Consequently, under this approach, it is not possible to determine in advance how long Auction 105 would last. We seek comment on our proposed simultaneous stopping rule.

### **E. Information Relating to Auction Delay, Suspension, or Cancellation**

37. For Auction 105, we propose that, at any time before or during the bidding process, OEA, in conjunction with the Bureau, may delay, suspend, or cancel bidding in Auction 105 in the event of a natural disaster, technical obstacle, network interruption, administrative or weather necessity, evidence of an auction security breach or unlawful bidding activity, or for any other reason that affects the fair and efficient conduct of competitive bidding.<sup>71</sup> In such a case, OEA would notify participants of any such

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<sup>68</sup> Not including the Gulf of Mexico, 305 CMAs are classified as MSAs (Metropolitan Statistical Areas). Of these, 133 encompass a single county. Each of the remaining 172 MSAs comprises multiple counties.

<sup>69</sup> The Commission has discretion to establish stopping rules before or during multiple round auctions in order to complete the auction within a reasonable time. 47 CFR § 1.2104(e); *see also, e.g., Auction 97 Procedures Public Notice*, 29 FCC Rcd at 8434-36, paras. 172-78; *Auction of H Block Licenses in the 1915-1920 MHz and 1995-2000 MHz Bands Scheduled for January 14, 2014; Notice and Filing Requirements, Reserve Price, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 96*, AU Docket No. 13-178, Public Notice, 28 FCC Rcd 13019 at 13061, paras. 161-63 (WTB 2013) (*H Block Procedures Public Notice*).

<sup>70</sup> Excess demand is calculated as the difference between the number of blocks of aggregate demand (from both county-level and CMA-level bids) and supply (equal to 7 blocks in all counties).

<sup>71</sup> *See* 47 CFR § 1.2104(i).

delay, suspension, or cancellation by public notice and/or through the FCC auction bidding system's announcement function. If the bidding is delayed or suspended, OEA, in its sole discretion, may elect to resume the auction starting from the beginning of the current round or from some previous round, or it may cancel the auction in its entirety. We emphasize that OEA and the Bureau would exercise this authority solely at their discretion. We seek comment on this proposal.

#### **F. Upfront Payments and Bidding Eligibility**

38. In keeping with the Commission's usual practice in spectrum license auctions, we propose that applicants be required to submit upfront payments as a prerequisite to becoming qualified to bid.<sup>72</sup> As described below, the upfront payment is a refundable deposit made by an applicant to establish its eligibility to bid on licenses. Upfront payments 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.<sup>73</sup> With these considerations in mind, the Commission proposes upfront payments based on \$0.01 per MHz-pop, with a minimum of \$500 per county.<sup>74</sup> The proposed upfront payments equal approximately half the proposed minimum opening bids, which are established as described in [[section xxx]], below. We seek comment on these upfront payment amounts, which are specified in the Attachment A files.

39. We further propose that the amount of the upfront payment submitted by a bidder would determine its initial bidding eligibility in bidding units, which are a measure of bidder eligibility and bidding activity. We propose to assign each block in a given county a specific number of bidding units, equal to one bidding unit per \$10 of the upfront payment listed in Attachment A. The number of bidding units for one block in a given county is fixed, since it is based on the MHz-pops in the block, and does not change during the auction as prices change. To the extent that bidders wish to bid on multiple generic blocks simultaneously, whether within the same county or in different counties, they would need to ensure that their upfront payment provides enough eligibility to cover multiple blocks.

40. Under our proposed approach, a bidder's upfront payment would not be attributed to blocks in a specific county or counties. A bidder may place bids on multiple blocks in counties that it selected for bidding in its FCC Form 175, provided that the total number of bidding units associated with those blocks does not exceed its eligibility-based limit for the round. A bidder cannot increase its eligibility during the auction; it can only maintain its eligibility or decrease its eligibility. Thus, in calculating its upfront payment amount and hence its initial bidding eligibility, an applicant must determine the maximum number of bidding units on which it may wish to bid in any single round and submit an upfront payment amount covering that total number of bidding units. We seek comment on these proposals.

#### **G. Activity Rule, Activity Upper Limit, and Reducing Eligibility**

41. In order to ensure that the auction closes within a reasonable period of time, an activity rule requires bidders to bid actively throughout the auction, rather than wait until late in the auction before participating. For this clock auction, a bidder's activity in a round for purposes of the activity rule would be the sum of the bidding units associated with the bidder's demands as applied by the auction system during bid processing. Bidders are required to be active on a specific percentage (the *activity requirement percentage*) of their current bidding eligibility during each round of the auction. Failure to maintain the

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<sup>72</sup> See *id.* § 1.2106.

<sup>73</sup> See *Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, Second Report and Order, 9 FCC Rcd 2348, 2377-79, paras. 169-176 (1994) (*Competitive Bidding Second Report and Order*). We note that the Commission's rules require that "[a]ny auction applicant that, pursuant to § 1.2105(a)(2)(xii), certifies that it is a former defaulter must submit an upfront payment equal to 50% more than the amount that otherwise would be required." 47 CFR § 1.2106(a).

<sup>74</sup> 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.

requisite activity level would result in a reduction in the bidder's eligibility, possibly curtailing or eliminating the bidder's ability to place additional bids in the auction.

42. We propose to require that bidders maintain a fixed, high level of activity in each round of Auction 105 in order to maintain bidding eligibility. Specifically, we propose to require that bidders be active on between 90% and 100% of their bidding eligibility in all clock rounds. Thus, the activity rule would be satisfied when a bidder has bidding activity on blocks with bidding units that total 90% to 100% of its current eligibility in the round. If the activity rule is met, then the bidder's eligibility does not change for the next round. If the activity rule is not met in a round, the bidder's eligibility would be reduced. We propose to calculate bidding activity based on the bids that are accepted by the FCC auction bidding system. That is, if a bidder requests a reduction in the quantity of blocks it demands in a county, but the FCC auction bidding system does not accept the request because demand would fall below the available supply, then the bidder's activity would reflect its unreduced demand.<sup>75</sup>

43. Because a bidder's eligibility for the next round is calculated based on the bidder's demands as applied by the auction system during bid processing, a bidder's eligibility may be reduced even if the bidder submitted bids with activity that exceeds the required activity for the round.<sup>76</sup> To help a bidder avoid having its eligibility reduced as a result of submitted bids that could not be accepted during bid processing, we propose to allow a bidder to submit bids with associated bidding activity greater than its current bidding eligibility.<sup>77</sup> However, under our proposed procedures, the bidder's activity as applied by the auction system during bid processing would not exceed the bidder's current bidding eligibility. That is, a bidder may submit bids with associated bidding units exceeding 100% of its current bidding eligibility, but its processed activity may never exceed its eligibility.

44. Specifically, we propose that after Round 1 a bidder may submit bids with bidding units totaling up to an *activity upper limit* equal to the bidder's current bidding eligibility for the round times a percentage (the *activity limit percentage*) equal to or greater than 100%.<sup>78</sup> We propose an initial activity limit percentage of 120% and a range of potential percentages between 100% and 140% to apply to Round 2 and subsequent rounds. In any bidding round, the auction bidding system will advise the bidder of its current bidding eligibility, its required bidding activity, and its activity upper limit.

45. Under our proposed procedures, OEA would retain the discretion to change the activity requirement percentage and the activity limit percentage during the auction. The bidding system would announce any such changes in advance of the round in which they would take effect, giving bidders adequate notice to adjust their bidding strategies.

46. We invite comment on this proposal and encourage commenters to address specifically whether to set the activity requirement percentage between 90% and 100% and whether to set the activity limit percentage between 100% and 140%. Further, we seek comment on where to set these percentages initially. We also seek comment on the relationship between the proposed activity rules and the ability of

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<sup>75</sup> Under the ascending clock auction format, the FCC auction bidding system will not allow a bidder to reduce the quantity of blocks it demands in an individual county if the reduction would result in aggregate demand falling below (or further below) the available supply of blocks in the county. [[Section xxx ("No Excess Supply" Rule)]] proposes a limited exception for CMA-level bids.

<sup>76</sup> This may occur, for example, if the bidder bids to reduce its demand in county A by two blocks (with 10 bidding units each) and bids to increase its demand by one block (with 20 bidding units) in county B. If the bidder's demand can only be reduced by one block in county A (because there is only one block of excess demand), the increase in county B cannot be applied, and absent other bidding activity the bidder's eligibility would be reduced. [[See section xxx ("No Excess Supply" Rule and Bid Processing)]] for further details on bid processing.

<sup>77</sup> For example, under this proposal, and depending upon the bidder's overall bidding eligibility and the activity limit percentage, a bidder could submit an "additional" bid or bids that would be considered (in price point order with its other bids) and applied as available eligibility permits during the bid processing. See Auction 105 Technical Guide, sections [[xxx bid processing]] for an example and further details.

<sup>78</sup> For Round 1, the activity upper limit would be 100% of the bidder's initial bidding eligibility.

bidders to switch their demands across counties. We encourage any commenters that oppose the proposed ranges for the activity requirement percentage and the activity limit percentage to explain their reasons with specificity.

47. We point out that under the proposed clock auction format, 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 auction bidding system as requests to reduce to a quantity of zero blocks for the county or CMA (if the bidder is bidding at the CMA level). If these requests are applied, or applied partially, a bidder's bidding activity, and hence its bidding eligibility for the next round, may be reduced.<sup>79</sup>

48. For Auction 105, we do not propose to provide for activity rule waivers to preserve a bidder's eligibility. We note that our proposal to permit a bidder to submit bids with bidding activity greater than its eligibility, within the limits set forth above, would address some of the circumstances under which a bidder risks losing bidding eligibility and otherwise could wish to use a bidding activity waiver. This approach not to allow waivers is consistent with the ascending clock auction procedures used in Auction 1002 and 102 and with the procedures adopted for Auction 103.<sup>80</sup> The clock auction relies on precisely identifying the point at which demand decreases to equal supply to determine winning bidders and final prices. Allowing waivers would create uncertainty with respect to the exact level of bidder demand and interfere with the basic clock price-setting and winner determination mechanism. Moreover, uncertainty about the level of demand would affect the way bidders' requests to reduce demand are processed by the bidding system, as addressed below.<sup>81</sup> We seek comment on this approach.

## **H. Acceptable Bids**

### **1. Reserve Price or Minimum Opening Bids**

49. As part of the pre-bidding process for each auction, we seek comment on the use of a minimum opening bid amount and/or reserve price, as mandated by Section 309(j) of the Communications Act of 1934, as amended.

50. We propose to establish minimum opening bid amounts for Auction 105. The bidding system will not accept bids lower than these amounts. Based on our experience in past auctions, setting minimum opening bid amounts judiciously is an effective tool for accelerating the competitive bidding process.<sup>82</sup> In the first bidding round of Auction 105, a bidder would indicate how many generic license blocks in a county (or CMA, if applicable) it demands at the minimum opening bid price. For Auction 105, we propose to establish initial clock prices, or minimum opening bids, by county, as set forth in the following paragraph. For CMA-level bids, we propose minimum opening bids that are the sum of the minimum opening bids for all of the counties in the CMA. There are no circumstances associated with Auction 105 that suggest we should propose a separate aggregate reserve price in this auction.

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<sup>79</sup> [[See section xxx (“No Excess Supply” Rule and Bid Processing)]] regarding partial application of bids. A CMA-level bid may be applied partially with respect to the number of blocks specified in the bid, not for fewer than the full number of counties in the CMA.

<sup>80</sup> See *Auction 1000 Bidding Procedures Public Notice*, 30 FCC Rcd at 9077, para. 213; *Auction 101-102 Procedures Public Notice*, 33 FCC Rcd at 7650, para. 245; *Auction 103 Procedures Public Notice* at 58-65, paras. 185-218. In previous FCC simultaneous multiple round auctions for frequency-specific licenses (as opposed to generic blocks), when a bidder's eligibility in the current round was below a required minimum level, the bidder was able to preserve its current level of eligibility with a limited number of activity rule waivers. See, e.g., *H Block Procedures Public Notice*, 28 FCC Rcd at 13060, paras. 157-60.

<sup>81</sup> [[See section xxx (“No Excess Supply” Rule and Bid Processing), below.]]

<sup>82</sup> See, e.g., *Auction 97 Procedures Public Notice*, 29 FCC Rcd at 8440, para. 193.



Accordingly, we do not propose to establish an aggregate reserve price<sup>83</sup> or block reserve prices that are different from minimum opening bid amounts for the licenses to be offered in Auction 105.

51. For Auction 105, we propose to calculate minimum opening bid amounts using a formula based on bandwidth and license area population, which is similar to our approach in many previous spectrum auctions. We propose to use a calculation based on \$0.02 per MHz-pop, with a minimum of \$1,000.<sup>84</sup> We seek comment on these minimum opening bid amounts, which are specified in the Attachment A files. If commenters believe that these minimum opening bid amounts would result in unsold licenses, are not reasonable amounts, or should instead operate as reserve prices, they should explain their reasoning and propose an alternative approach. Commenters should support their claims with valuation analyses and suggested amounts or formulas for reserve prices or minimum opening bids.

52. In establishing minimum opening bid amounts, we particularly seek comment on factors that could reasonably affect bidders' valuation of the spectrum, including the type of service offered, market size, population covered by the proposed facility, and any other relevant factors.

53. Commenters may also wish to address the general role of minimum opening bids in managing the pace of the auction. For example, commenters could compare using minimum opening bids—e.g., by setting higher minimum opening bids to reduce the number of rounds it takes licenses to reach their final prices—to other means of controlling auction pace, such as changing the bidding schedule, the activity requirement percentage, or the bid increment parameters.

## 2. Clock Price Increments

54. Under our proposed clock auction format for Auction 105, after bidding in the first round and before each subsequent round, the FCC auction bidding system would announce the start-of-round price<sup>85</sup> and the clock price for the upcoming round—that is, the lowest price and the highest price at which bidders can specify the number of blocks they demand during the round. As long as aggregate demand for blocks in the county exceeds the supply of blocks, the start-of-round price would be equal to the clock price from the prior round.<sup>86</sup> If demand equaled supply at a price in a previous round, then the start-of-round price for the next round would be equal to the price at which demand equaled supply. If demand was less than supply in the previous round, then the start-of-round price for the next round would not increase.

55. We propose to set the clock price for blocks in a specific county for a round by adding a percentage increment, which may be county-specific, to the start-of-round price.<sup>87</sup> We further propose that the total dollar amount of the increment (the difference between the clock price and the start-of-round price) would not exceed a certain amount. We propose that this cap on the increment initially be set at \$10 million, and we propose to retain the discretion to adjust this cap as rounds continue.

56. Under our proposed procedures, the percentage increment for a county would depend upon whether the county is in a CMA for which CMA-level bids are allowed.

57. *For counties not subject to CMA-level bidding.* We propose to set the clock price for blocks in a county not subject to CMA-level bidding (counties in CMAs 307–734 and counties in single-

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<sup>83</sup> A reserve price is an amount below which an item, or group of items, may not be won. A reserve price may be higher than the minimum opening bid, or for a group of items, the sum of minimum opening bids.

<sup>84</sup> See note [[xx]] (concerning rounding), above.

<sup>85</sup> The start-of-round price is also referred to as the posted price of the previous round.

<sup>86</sup> Aggregate demand for a county is equal to the number of blocks that are bid on a county-level plus the number of blocks that are bid on a CMA-level.

<sup>87</sup> For example, if the start-of-round price for a block in a given county is \$10,000, and the percentage increment is 20%, then the clock price for the round will be \$12,000. As in other Auction 103, the result will be rounded as follows: 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.

county MSAs) by adding a fixed increment—the *basic increment percentage*—to the start-of-round price. We propose to set the basic increment percentage within a range of 5% to 20% inclusive, to set the initial basic increment percentage at 10%, and potentially to adjust the increment as rounds continue. The proposed 5% to 20% increment range will allow us to set a percentage that manages the auction pace and takes into account bidders’ needs to evaluate their bidding strategies while moving the auction along quickly.

58. *For counties subject to CMA-level bidding.* We propose to set the clock price for counties that are subject to CMA-level bidding using a formula that attempts to equalize aggregate demand across the counties in the CMA, thereby discouraging excess supply that can occur with CMA-level bids.<sup>88</sup> Under our proposal, when there is significant variation in the extent of aggregate demand across the counties in a CMA, the increment percentage will be larger for counties with greater aggregate demand, increasing prices more quickly. As a result, aggregate demand for those counties will tend to fall relative to aggregate demand for counties in which prices are increasing less quickly. As aggregate demand across the counties in the CMA tends to equalize, it becomes less likely that there will be excess demand in one county but not in others, a situation which under our proposed procedures may allow a CMA-level bidder to reduce demand such that demand falls below supply in one or more counties.

59. Under this proposal, the bidding system would set the clock price for counties subject to CMA-level bidding using an algorithm. The algorithm would first consider the extent of variation in excess demand across the counties in the CMA. If the variation does not exceed a given basic threshold, the increment percentage for all counties in the CMA would be set equal to the basic increment percentage. Then the clock price would be determined by adding the basic increment percentage to the start-of-round price for each county in the CMA, as it would be for counties not subject to CMA-level bidding.

60. If instead the algorithm shows that the extent of variation in aggregate demand across the counties in a CMA exceeds the basic threshold, indicating that there is significantly more demand for blocks in some counties than others, the algorithm would calculate an increment percentage for each county based on how aggregate demand in that county compares to aggregate demand in the other counties. The increment percentage for counties with relatively high demand would be greater than the increment percentage for counties with relatively low demand. The county-specific percentage increment calculated by the algorithm would then be added to the start-of-round price to determine the clock price for the county. The increment percentages would be no greater than a maximum, which we propose to set within a range of 5% to 20% and no less than a minimum, which we propose to set within a range of 2% to 20%. We propose to set the initial maximum increment percentage at 15%, and the initial minimum increment percentage at 5%.

61. The specific algorithm proposed for calculating the increment percentage in counties subject to CMA-level bidding is set forth in the Auction 105 Technical Guide. We seek comment on these proposed procedures for setting the clock increment under various circumstances, including the variable pricing algorithm and the use of the algorithm with CMA-level bids.<sup>89</sup> In particular, we ask for feedback on the proposed 5% to 20% range for the basic increment percentage, with an initial basic increment percentage of 10%. We also ask for specific feedback on the proposed 2% to 20% range for the minimum increment percentage, with an initial minimum increment percentage of 5%, and on the proposed 5% to 20% range for the maximum increment percentage, with an initial maximum increment percentage of 15%.

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<sup>88</sup> Because of the exception to the “no excess supply” rule, one unit of a CMA-level bid to reduce demand may be applied even if that causes aggregate demand to drop below supply in some counties. Thus, the aggregate demand in a county can drop below supply in later rounds even if the aggregate demand in that county initially exceeded supply. [[See section xxx below (Bids to Change Demand and Bid Processing).]]

<sup>89</sup> See Auction 105 Technical Guide, section [[xxx]].

### 3. Intra-Round Bids

62. We propose generally to permit a bidder to make intra-round bids by indicating a point between the start-of-round price and the clock price at which its demand for blocks changes. In placing an intra-round bid, a bidder would indicate a specific price and a quantity of blocks it demands if the price for blocks should increase beyond that price.

63. We also propose an exception to this general rule. In the case of a CMA-level bid to reduce demand, the bid could only be made at the start-of-round price. This proposed exception would help to ensure that the price does not increase above the start-of-round price when there is excess supply (that is, unsold blocks), which may result from a CMA-level bid to reduce demand.<sup>90</sup>

64. Intra-round bids would be optional; a bidder may choose to express its demands only at the clock prices. This proposal to permit intra-round bidding would allow the auction system to use relatively large increments, thereby speeding the auction, 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. We seek comment on the proposal to allow intra-round bids.

#### I. Bids to Change Demand and Bid Processing

65. Under the ascending clock format we propose for Auction 105, a bidder would indicate in each round the number of blocks in each county and/or CMA (if bidding at a CMA level) that it demands at a given price. A bidder that wishes to change the quantity it demands (relative to its demands from the previous round as processed by the bidding system) would express its demands at the clock price or at an intra-round price.<sup>91</sup> A bidder that is willing to maintain the same demand in a county at the new clock price would bid for that quantity at the clock price, indicating that it is willing to pay up to that price, if need be, for the specified quantity. Bids to maintain demand would always be applied by the auction bidding system.

66. We propose bid processing procedures that the auction bidding system would use, after each bidding round, to process bids to change demand to determine the *processed demand* of each bidder and a *posted price* for each county that would serve as the start-of-round price for the next round.

#### 1. No Excess Supply Rule

67. Under the ascending clock auction format, the FCC auction bidding system will not allow a bidder to reduce the quantity of blocks it demands in an individual county if the reduction would result in aggregate demand falling below (or further below) the available supply of blocks in the county. Therefore, if a bidder bids to reduce the number of blocks that it holds as of the previous round, the FCC auction bidding system will treat the bid as a request to reduce demand that will be applied only if the “no excess supply” rule would be satisfied.<sup>92</sup>

68. We propose a limited exception to the “no excess supply” rule for CMA-level bids only. Under this proposed modification, for CMA-level bids, if there is excess demand in at least one county of the CMA at the time a CMA-level bid to reduce demand is processed, then a reduction of one block would be applied even if that creates excess supply in other counties of the CMA. Once the first unit of a CMA-level bid to reduce demand has been applied, the “no excess supply” rule then would be in effect for any further reduction requested in that bidder’s CMA-level bid that has not yet been applied. CMA-level bids to reduce demand would only be allowed at the lowest price associated with the round (the start-of-round price). We note that the price incrementing rules for CMAs for which CMA-level bidding

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<sup>90</sup> See *id.*, section [[xxx]].

<sup>91</sup> However, CMA-level bids to reduce demand must be made at the start-of-round price.

<sup>92</sup> We use the term “hold” in this context to refer to the number of generic blocks for which the bidder has processed demand, either as of a given point during the bid processing or after the round’s processing is completed.

is permitted make it more likely that aggregate demands would be equalized across the counties in the CMA, thus making it less likely that the “no excess supply” exception would be triggered.<sup>93</sup>

## 2. Partial Application of Bids

69. Under our proposed bid processing procedures, a bid that involves a reduction from the bidder’s previous demands could be applied partially—that is, reduced by fewer blocks than requested in the bid—if excess demand is insufficient to support the entire reduction. A bid to increase a bidder’s demands could be applied partially if the total number of bidding units associated with the bidder’s demand exceeds the bidder’s bidding eligibility for the round.

## 3. Processed Demands

70. We propose to process bids to change demand in order of price point after a round ends,<sup>94</sup> where the price point represents the percentage of the bidding interval for the round.<sup>95</sup> Under this proposal, the FCC auction bidding system would process bids to change demand 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 would consider bids at the lowest price point across all counties and all CMAs subject to CMA-level bidding, then look at bids at the next price point in all areas, and so on.<sup>96</sup> As it considers each submitted bid during bid processing, the FCC auction bidding system would determine the extent to which there is excess demand in each county at that point in the processing in order to determine whether a bidder’s request to reduce demand can be applied. Likewise, the auction bidding system would evaluate the activity associated with the bidder’s most recently determined demands at that point in the processing to determine whether a request to increase demand can be applied.

71. Because in any given round some bidders may request to increase demands for licenses while others may request reductions, the price point at which a bid is considered by the auction bidding system can affect whether it is applied. In addition to proposing that bids be considered by the system in increasing order of “price point,” we further propose that bids not applied because of insufficient aggregate demand or insufficient eligibility be held in a queue and considered, again in order, if there should be excess supply or sufficient eligibility later in the processing after other bids are processed.

72. Therefore, under our proposed procedures, once a round closes, the auction system would process bids to change demand by first considering the bid submitted at the lowest price point and determining the maximum extent to which that bid can be applied given bidders’ demands as determined at that point in the bid processing. If the bid can be applied (either in full or partially), the number of licenses the bidder holds at that point in the processing would be adjusted, and aggregate demand would be recalculated accordingly. If the bid cannot be applied in full, the unfulfilled bid, or portion thereof, would be held in a queue to be considered later during bid processing for that round. The FCC auction bidding system would then consider the bid submitted at the next highest price point, applying it in full, in part, or not at all, given the most recently determined demands of bidders. Any unfulfilled requests would again be held in the queue, and aggregate demand would again be recalculated. Every time a bid or part of a bid is applied, the unfulfilled bids held in the queue would be reconsidered, in the order of their original price points (and by pseudo-random number, in the case of tied price points). The auction bidding system would not carry over unfulfilled bid requests to the next round, however. The bidding system would advise bidders of the status of their bids when round results are released.

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<sup>93</sup> See section [[xx below (Clock Price Increments)]].

<sup>94</sup> Bids to maintain demand are always applied before the bidding system considers bids to change demand.

<sup>95</sup> For example, if the start-of-round price is \$5,000 and the clock price 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.

<sup>96</sup> We propose that, if there are multiple bids at a single price point, the system will process bids in order of a bid-specific pseudo-random number.

#### 4. Price Determination

73. We further propose bid processing procedures that would determine, based on aggregate demand, the posted price for each county for the round that will serve as the start-of-round price for the next round. Under our proposal, the uniform price for all of the blocks in a county would increase from round to round as long as there is excess demand for blocks in the county but would not increase if aggregate demand does not exceed the available supply of blocks.

74. We propose that if, at the end of a round, the aggregate demand for blocks in the county (considering both county-level and CMA-level bids) exceeds the supply of blocks (7), the posted price would equal the clock price for the round. If a reduction in demand was applied during the round and caused demand in the county to equal (or fall below) supply, the posted price would be the price at which the reduction was applied. If aggregate demand is less than supply and no bid to reduce demand was applied for the county, then the posted price would equal the start-of-round price for the round. The range of acceptable bid amounts for the next round would be set by adding the percentage increment to the posted price.

75. When a county-level bid to reduce demand can be applied only partially, the uniform price for the county would stop increasing at that point, since the partial application of the bid would result in demand falling to equal supply. Hence, a bidder that makes a county-level bid to reduce demand that cannot be fully applied would not face a price for the remaining demand that is higher than its bid price. A bidder that makes a CMA-level bid to reduce demand that is partially applied may face a price for the remaining demand that is higher than its bid price for some of the counties.<sup>97</sup>

76. After the bids of the round have been processed, if the stopping rule has not been met, the FCC auction bidding system would announce clock prices to indicate a range of acceptable bids for the next round. Each bidder would be informed of its processed demand and the extent of excess demand for blocks in each county.

77. We seek comment on our proposals regarding bid processing for Auction 105.

#### J. Winning Bids

78. Under our proposed clock auction format for Auction 105, bidders that are still expressing demand for a quantity of blocks in a county—either on an individual county basis or through a CMA-level bid—at the time the stopping rule is met would become the winning bidders of licenses corresponding to that number of blocks. The final price for a generic block in a county would be the posted price for the final round.<sup>98</sup>

#### K. Bid Removal and Bid Withdrawal

79. The FCC auction bidding system allows each 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. Once a round closes, a bidder may no longer remove a bid.

80. Unlike an auction conducted using the Commission’s standard simultaneous multiple-round auction format for bidding on frequency-specific licenses (as opposed to generic blocks), there are no provisionally winning bids in a clock auction. As a result, the concept of bid withdrawals does not apply to a clock auction. As proposed above, however, bidders in Auction 105 may request to reduce demand for generic blocks.<sup>99</sup>

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<sup>97</sup> This is the case when some counties in the CMA still have excess demand, which will cause the prices in those counties to increase.

<sup>98</sup> This and other Auction 105 bid processing details are addressed in the *Auction 105 Technical Guide*.

<sup>99</sup> [[See section xxx (“No Excess Supply” Rule and Bid Processing) (discussing how the system would process requests to reduce demand), above.]]

## V. POST-AUCTION PROCESS

### A. Deficiency Payments and Additional Default Payment Percentage

81. 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 full and timely final payment, or is otherwise disqualified) is liable for a default payment under Section 1.2104(g)(2) of the rules.<sup>100</sup> 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.

82. *Deficiency payment for CMA-level bidding.* Under the CMA-level bidding procedures we propose, a CMA-level bid requests a quantity of blocks in each county at a price equal to the sum of the per-block prices in the individual constituent counties times the number of blocks demanded. Accordingly, in the event of default on a CMA-level bid, the deficiency payment for each individual county-based license will be calculated using the per-block price for the specific county, and the deficiency payment for the CMA will be the sum of the payment for each county.

83. *Additional Default Payment Percentage.* The percentage of the bid that a defaulting bidder must pay in addition to the deficiency will depend on the auction format ultimately chosen for a particular auction. Without combinatorial bidding, the amount can range from 3% up to a maximum of 20%, established in advance of the auction and based on the nature of the service and the inventory of the licenses being offered.<sup>101</sup> In auctions with combinatorial bidding, the additional payment is set, pursuant to Section 1.2104(g)(2)(ii), at 25% of the applicable bid. This higher level reflects the fact that a defaulted winning bid in an auction with combinatorial bidding may affect the award of other licenses in the auction and may be used to effectuate anti-competitive strategies; hence a stronger deterrent against insincere bidding and strategic default is warranted.<sup>102</sup> Under our proposed procedures, bidders will be permitted to bid for a group of counties that comprise a CMA. Thus, we propose an approach consistent with past auctions where the bidding procedures allowed for bidders to package their bids.<sup>103</sup> Specifically, we propose to establish for Auction 105 an additional default payment of 25% for a default on any winning CMA-level bid.

84. For winning county-level bids, we propose an additional default payment of 20% of the relevant bid. As noted in the *CSEA/Part 1 Report and Order*, defaults weaken the integrity of the auction process and may impede the deployment of service to the public, and an additional default payment of up to 20% should be more effective in deterring defaults than the 3% used in some earlier auctions.<sup>104</sup> Given the large number of PALs available for bidding in Auction 105, we believe that a 20% default payment is necessary to ensure that entities only bid on those licenses that they reasonably expect to use. The Commission seeks comment on this proposal.

85. In case they are needed for post-auction administrative purposes, the bidding system will calculate individual per-license prices that are separate from a bidder's final auction payment, which is

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<sup>100</sup> 47 CFR § 1.2104(g)(2).

<sup>101</sup> See *Implementation of the Commercial Spectrum Enhancement Act and Modernization of the Commission's Competitive Bidding Rules and Procedures*, Report and Order, 21 FCC Rcd 891, 903, para. 30 (2006) (*CSEA/Part 1 Report and Order*).

<sup>102</sup> *Amendment of Part 1 of the Commission's Rules - Competitive Bidding Procedures*, Second Order on Reconsideration of the Third Report and Order and Order on Reconsideration of the Fifth Report and Order, 18 FCC Rcd 10180, 10198-202, paras. 25-29 (2003).

<sup>103</sup> See, e.g., *Auction of 700 MHz Band Licenses Scheduled For January 24, 2008; Notice and Filing Requirements, Minimum Opening Bids, Reserve Prices, Upfront Payments, and Other Procedures for Auctions 74 and 76*, AU Docket No. 07-157, DA 07-4171, Public Notice, 22 FCC Rcd 18141, 18219-21, paras. 301-305 (WTB 2007).

<sup>104</sup> *CSEA/Part 1 Report and Order*, 21 FCC Rcd at 902-03, para. 29.

calculated on an aggregate basis. In calculating the per-license prices, the bidding system will apportion to individual licenses any capped bidding credit discounts,<sup>105</sup> since a single amount may apply to multiple licenses.

#### **B. Tutorial and Additional Information for Applicants**

86. The Commission intends to provide additional information on the bidding system and to offer demonstrations and other educational opportunities for applicants in Auction 105 to familiarize themselves with the FCC auction application system and the auction bidding system. For example, the Commission intends to release an online tutorial for Auction 105 that will help applicants understand the procedures to be followed in the filing of their auction short-form applications (FCC Form 175) for Auction 105 and in their use of the auction bidding system.

### **VI. PROCEDURAL MATTERS**

87. *Supplemental Initial Regulatory Flexibility Analysis.* As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>106</sup> the Commission has prepared this Supplemental Initial Regulatory Flexibility Analysis (Supplemental IRFA) of the possible significant economic impact on small entities of the proposed policies and rules addressed in this Public Notice to supplement the Commission's Initial and Final Regulatory Flexibility Analyses completed in the *2018 3.5 GHz Order*. Written public comments are requested on this Supplemental IRFA. Comments must be identified as responses to the Supplemental IRFA and must be filed by the same deadline for comments specified on the first page of this Public Notice. The Commission will send a copy of this Public Notice, including this Supplemental IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).<sup>107</sup> In addition, this Public Notice and Supplemental IRFA (or summaries thereof) will be published in the *Federal Register*.<sup>108</sup>

88. *Need for, and Objectives of, the Proposed Rules.* This Public Notice seeks comment on proposed auction procedures for those entities that seek to acquire Priority Access Licenses in Auction 105. This process is intended to provide notice of and adequate time for potential applicants to comment on proposed auction procedures.<sup>109</sup> To promote the efficient and fair administration of the competitive bidding process for all Auction 105 participants, the Commission seeks comment on the following proposed procedures:

- establishment of bidding credit caps for eligible small businesses and rural service providers in Auction 105;
- use of a clock auction format for Auction 105 under which each qualified bidder will indicate in successive clock bidding rounds its demands for generic blocks in specific counties, and associated bidding and bid processing procedures to implement the clock auction format;
- procedures to permit a bidder to elect to bid at a CMA-level, rather than a county-level, for certain large, multi-county CMAs, and procedures to implement CMA-level bidding;
- use of an activity rule, which requires a bidder to bid actively during the auction on a high percentage of its bidding eligibility, including a modification that would allow a bidder to submit bids, but not to be assigned bids, that exceed its bidding eligibility;

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<sup>105</sup> [[See section xxx]] (Bidding Credit Caps), above.

<sup>106</sup> 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996, Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

<sup>107</sup> *See* 5 U.S.C. § 603(a).

<sup>108</sup> *See id.*

<sup>109</sup> *See* 47 U.S.C. § 309(j)(3)(E)(i) (requiring the Commission to seek comment on auction procedures).



- a specific minimum opening bid amount for generic blocks in each county available in Auction 105;
- a specific upfront payment amount for generic blocks in each county available in Auction 105;
- establishment of a bidder's initial bidding eligibility in bidding units based on that bidder's upfront payment through assignment of a specific number of bidding units for each generic block;
- establishment of acceptable bid amounts, including clock price increments and intra-round bids, along with a proposed methodology for calculating such amounts; and
- establishment of additional default payments of 20% for county-level bids and 25% for CMA-level bids pursuant Section 1.2104(g)(2) of the rules in the event that a winning bidder defaults or is disqualified after either auction.

89. *Legal Basis.* The Commission's statutory obligations to small businesses under the Communications Act of 1934, as amended, are found in Sections 309(j)(3)(B) and 309(j)(4)(D). The statutory basis for the Commission's competitive bidding rules is found in various provisions of the Communications Act of 1934, as amended, including 47 U.S.C. §§ 154(i), 301, 302, 303(e), 303(f), 303(r), 304, 307, and 309(j). The Commission has established a framework of competitive bidding rules, updated most recently in 2015, pursuant to which it has conducted auctions since the inception of the auction program in 1994 and would conduct Auction 105.<sup>110</sup>

90. *Description and Estimate of the Number of Small Entities to Which the Proposed 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 proposed rules and policies, if adopted.<sup>111</sup> The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."<sup>112</sup> In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.<sup>113</sup> 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.<sup>114</sup>

91. As noted above, an FRFA was incorporated into the *2018 3.5 GHz Order*. In that analysis, 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 FRFA in the *2018 3.5 GHz Order*.<sup>115</sup>

92. *Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities.* The Commission designed the auction application process itself to

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<sup>110</sup> See generally 47 CFR Part 1, Subpart Q; see also 47 CFR §§ 73.5000, 73.5002-.5003, 73.5005-.5009. In promulgating those rules, the Commission conducted numerous RFA analyses to consider the possible impact of those rules on small businesses that might seek to participate in Commission auctions. See, e.g., *Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, Notice of Proposed Rule Making, 8 FCC Rcd 7635, 7666, Appx (1993); *Amendment of Part 1 of the Commission's Rules—Competitive Bidding Proceeding*, Order, Memorandum Opinion and Order and Notice of Proposed Rule Making, 12 FCC Rcd 5686, 5749-53, Appx. C (1997); *2015 Part 1 Report and Order*, 30 FCC Rcd at 7613-28, Appx. B.

<sup>111</sup> 5 U.S.C. § 603(b)(3).

<sup>112</sup> *Id.* § 601(6).

<sup>113</sup> *Id.* § 601(3) (incorporating by reference the definition of "small business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

<sup>114</sup> 15 U.S.C. § 632.

<sup>115</sup> *2018 3.5 GHz Order*, 33 FCC Rcd at 10674-85, Appx. B.

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.<sup>116</sup> 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 or provide the additional showings and more detailed demonstrations required of a winning bidder.

93. *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 proposed 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."<sup>117</sup>

94. The Commission has taken steps to minimize any economic impact of its auction procedures on small businesses through, among other things, the many resources it provides potential auction participants. Small entities and other auction participants may seek clarification of or guidance on complying with competitive bidding rules and procedures, reporting requirements, and the FCC's auction bidding system. An FCC Auctions Hotline provides access to Commission staff for information about the auction process and procedures. The FCC Auctions Technical Support Hotline is another resource that provides technical assistance to applicants, including small business entities, on issues such as access to or navigation within the electronic FCC Form 175 and use of the FCC's auction bidding system. Small entities may also use 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.

95. The Commission also makes 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 105, the Commission will post public notices on the Auction's website, which articulate the procedures and deadlines for the respective auction. The Commission makes this information easily accessible and without charge to benefit all Auction 105 applicants, including small businesses, thereby lowering their administrative costs to comply with the Commission's competitive bidding rules.

96. Prior to the start of bidding in Auction 105, eligible bidders are given an opportunity to become familiar with auction procedures and the bidding system by participating in a mock auction. Further, the Commission intends to conduct Auction 105 electronically over the Internet using its web-based auction system that eliminates the need for bidders to be physically present in a specific location. Qualified bidders also have the option to place bids by telephone. These mechanisms are made available to facilitate participation in Auction 105 by all eligible bidders and may result in significant cost savings for small business entities who 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.

97. For Auction 105, we propose a \$25 million cap on the total amount of bidding credits that may be awarded to an eligible small business and a \$10 million cap on the total amount of bidding credits that may be awarded to a rural service provider. We also propose a \$10 million cap on the overall amount

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<sup>116</sup> See *Competitive Bidding Second Report and Order*, 9 FCC Rcd 2348, 2376-77, paras. 163-66.

<sup>117</sup> 5 U.S.C. § 603(c)(1)-(4).

of bidding credits that any winning small business bidder may apply to winning licenses in counties located within any PEA with a population of 500,000 or less. Based on the technical characteristics of the 3.5 GHz band and our analysis of past auction data, we anticipate that our proposed caps will allow the majority of small businesses and rural service providers to take full advantage of the bidding credit program, thereby lowering the relative costs of participation for small businesses.

98. These proposed procedures for the conduct of Auction 105 constitute the more specific implementation of the competitive bidding rules contemplated by Parts 1 and 96 of the Commission's rules and the underlying rulemaking orders, including the *2018 3.5 GHz Order* and relevant competitive bidding orders, and are fully consistent therewith.<sup>118</sup>

99. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules. None.

100. *Deadlines and Filing Procedures.* Pursuant to Sections 1.415 and 1.419 of the Commission's rules,<sup>119</sup> interested parties may file comments or reply comments on or before the dates indicated on the first page of this document in AU Docket No. 19-244. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.<sup>120</sup> We strongly encourage interested parties to file comments electronically, and to specify the particular auction (i.e., Auction 105) to which their comments are directed.

- *Electronic Filers:* Comments may be filed electronically using the Internet by accessing the ECFS at <http://www.fcc.gov/cgb/ecfs>.
- *Paper Filers:* Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the captions of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

101. Filings in response to this Public Notice may be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th Street, SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. Eastern Time (ET). All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington, DC 20554.

102. *E-mail:* We also request that a copy of all comments and reply comments be submitted electronically to the following address: [auction105@fcc.gov](mailto:auction105@fcc.gov).

103. *People with Disabilities:* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer and Government Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY).

104. This proceeding has been designated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.<sup>121</sup> Persons making oral *ex parte* presentations must file a copy of any written presentations or memoranda summarizing any oral presentation within two business days

<sup>118</sup> See generally *Competitive Bidding Second Report and Order*, 9 FCC Rcd at 2360-75, paras. 68-159.

<sup>119</sup> 47 CFR §§ 1.415, 1.419.

<sup>120</sup> See generally *Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24121 (1998).

<sup>121</sup> See 47 CFR §§ 1.1200(a), 1.1206.

after the presentation (unless a different deadline applicable to the Sunshine Period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to the Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

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

**Mobility Division, Wireless Telecommunications Bureau**

3.5 GHz questions: Jessica Quinley at (202) 418-1991

**Auctions Division, Office of Economics and Analytics**

Auction legal questions: Mary Lovejoy or Kelly Quinn 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

## ATTACHMENT A

## Summary of Licenses to Be Auctioned

Due to the large number of licenses available in Auction 105, the complete lists of licenses and markets available for this auction will be provided in electronic format only, available as separate "Attachment A" files at [www.fcc.gov/auction/105](http://www.fcc.gov/auction/105).

<b>Block</b>	<b>Frequencies</b>	<b>Geographic Area Type</b>	<b>Number of Licenses</b>
1 of 7	10 MHz within 3550-3650 MHz band	County	3,233
2 of 7	10 MHz within 3550-3650 MHz band	County	3,233
3 of 7	10 MHz within 3550-3650 MHz band	County	3,233
4 of 7	10 MHz within 3550-3650 MHz band	County	3,233
5 of 7	10 MHz within 3550-3650 MHz band	County	3,233
6 of 7	10 MHz within 3550-3650 MHz band	County	3,233
7 of 7	10 MHz within 3550-3650 MHz band	County	3,233
<b>Total</b>	<b>70 MHz within 3550-3650 MHz band</b>	<b>3,233 Counties</b>	<b>22,631 Licenses</b>

## Auction 105 — Proposed Aggregate Bidding Units, Upfront Payments, and Minimum Opening Bids

	<b>Bidding Units</b>	<b>Upfront Payments</b>	<b>Minimum Opening Bids</b>
Per Block	3,134,463	\$31,344,630	\$62,683,700
Total for 4 Blocks	12,537,852	\$125,378,520	\$250,734,800