



# PUBLIC NOTICE

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## AUCTION OF FLEXIBLE-USE LICENSES IN THE 2.5 GHz BAND FOR NEXT-GENERATION WIRELESS SERVICES

### FURTHER COMMENT SOUGHT ON COMPETITIVE BIDDING PROCEDURES FOR AUCTION 108

AU Docket No. 20-429

Comment Date: February 23, 2022

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## I. INTRODUCTION

1. By this Public Notice, the Office of Economics and Analytics (OEA), jointly with the Wireless Telecommunications Bureau (WTB), seeks further comment on the auction format to be used for Auction 108. Specifically, this Public Notice seeks comment on whether the use of an ascending clock auction format—a multiple-round auction with bidding for frequency-specific blocks— would address certain concerns and suggestions raised by commenters with respect to both the single-round and simultaneous multiple-round (SMR) auction formats on which the Commission sought comment in the *Auction 108 Comment Public Notice*.

2. On January 13, 2021, the Commission released a public notice seeking comment on competitive bidding procedures and various other procedures to be used in Auction 108,<sup>1</sup> in accordance with section 309(j)(3) of the Communications Act of 1934, as amended (Communications Act).<sup>2</sup> In that public notice, the Commission described and sought comment on a single-round auction format with user-defined package bidding, and on an SMR auction format.<sup>3</sup>

3. Numerous commenters responded to the *Auction 108 Comment Public Notice* by expressing specific concerns with one or the other format. In particular, several commenters express concern that the potentially long duration of an SMR auction could deter participation.<sup>4</sup> Some commenters assert that the costs of monitoring an overly long auction, as well as complying with an extended quiet period, would be burdensome for bidders, especially smaller entities, and accordingly, they favor the single-round approach.<sup>5</sup> On the other hand, several commenters cite the unfamiliarity of the single-round format as problematic, claiming that the additional resources needed to understand the auction format and develop an optimal bidding strategy could deter participation.<sup>6</sup>

4. This Public Notice seeks comment on whether the clock auction procedures set forth here would be an appropriate means of addressing these concerns and suggestions. The clock auction procedures described below, like the SMR, would be for a multiple-round auction, a characteristic which is favored by several commenters.<sup>7</sup> A clock auction is a familiar auction format, which has been used in a

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<sup>1</sup> *Auction of Flexible-Use Service Licenses in the 2.5 GHz Band for Next-Generation Wireless Services; Comment Sought on Competitive Bidding Procedures for Auction 108*, AU Docket No. 20-429, Public Notice, 36 FCC Rcd 645 (2021) (*Auction 108 Comment Public Notice*). The *Auction 108 Comment Public Notice* set deadlines for filing comments and reply comments at 60 and 75 days, respectively, after publication in the Federal Register. *Id.* at 645. On March 2, 2021, a summary of the *Auction 108 Comment Public Notice* was published in the Federal Register, which established the deadlines for comments and reply comments as May 3, 2021, and May 17, 2021, respectively. *See* 86 Fed. Reg. 12146, 12146 (Mar. 2, 2021).

<sup>2</sup> 47 U.S.C. § 309(j)(3)(E)(i) (requiring Commission to seek comment on proposed auction procedures); *see also id.* § 309(j)(4)(F) (authorizing Commission to prescribe reserve price or minimum bid); 47 CFR § 1.2104(c)-(d).

<sup>3</sup> *See Auction 108 Comment Public Notice*, 36 FCC Rcd at 656-71, paras. 31-98.

<sup>4</sup> *See* AT&T Services, Inc. Comments at 4-5 (AT&T); North American Catholic Educational Programming Foundation, Inc. and Mobile Beacon Comments at 7 (NACEPF/Mobile Beacon); Select Spectrum Comments at 1; DISH Reply at 2-3; Voqal Reply at 2; Wireless Internet Service Providers Association Reply at 11 (WISPA).

<sup>5</sup> *See* AT&T Comments at 5-6; NACEPF/Mobile Beacon Comments at 7-8; Select Spectrum Comments at 2; DISH Reply at 4; Voqal Reply at 2; WISPA Reply at 11.

<sup>6</sup> *See* Rural 2.5 Consortium Comments at 5; T-Mobile Comments at 2, 4, 5, 12; U.S. Cellular Comments at 2, 4-5; Competitive Carriers Association Reply at 2 (CCA); Rural Wireless Association Reply at 2-3 (RWA); Verizon Reply at 4-5; Letter from Steve B. Sharkey, Vice President, Government Affairs, T-Mobile, to Marlene H. Dortch, Secretary, FCC, AU Docket No. 20-429 et al., at 5-6 (filed Feb. 18, 2021).

<sup>7</sup> *See* CCA Comments at 4; TeleGuam Holdings LLC Comments at 8 (TeleGuam); U.S. Cellular Comments at 2-3; Verizon Comments at 5-6; RWA Reply at 3; T-Mobile Reply at 12-13.

number of recent FCC spectrum and Universal Service Fund (USF) auctions.<sup>8</sup> In addition, comments filed in response to the *Auction 108 Comment Public Notice* suggest the use of intra-round bidding to reduce the length of an SMR auction.<sup>9</sup> Intra-round bidding, however, is not a feature of Commission SMR auctions, but has been regularly used in clock auctions. Commenters also suggest the use of proxy bidding as an option to reduce the costs to bidders of continually monitoring a lengthy multiple-round auction.<sup>10</sup> Proxy bidding has been provided as an option to bidders in reverse clock auctions, but has not been a feature of past SMR auctions.<sup>11</sup>

5. To date, the Commission has used an ascending clock auction format in situations in which multiple frequency blocks of similar spectrum were offered, where a clock auction could be conducted more efficiently than could an SMR auction with license-by-license bidding.<sup>12</sup> Consistent with these experiences, in the *Auction 108 Comment Public Notice*, the Commission discounted the appropriateness of the typical clock auction format it uses—with multiple generic blocks in a category—for this auction of heterogeneous licenses.<sup>13</sup> However given commenters' requests for a familiar auction format with a manageable duration with the benefits of intra-round bidding and proxy bidding, this Public Notice seeks comment on whether the clock auction format is more responsive to bidder needs than the auction formats outlined in the *Auction 108 Comment Public Notice*.

6. As an initial matter, this Public Notice seeks comment on whether the proposals concerning upfront payments and bidding eligibility as described in the *Auction 108 Comment Public Notice* remain reasonable and appropriate if Auction 108 is conducted under the clock auction format discussed herein.<sup>14</sup> Thus, in calculating its upfront payment amount and hence its initial bidding

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<sup>8</sup> See, e.g., *Auction of Flexible-Use Service Licenses in the 3.45-3.55 GHz Band for Next-Generation Wireless Services; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 110; Bidding to Begin October 5, 2021*, AU Docket No. 21-62, Public Notice, 36 FCC Rcd 9272, 9324-25, paras. 170-75 (OEA/WTB 2021) (*Auction 110 Procedures Public Notice*); *Rural Digital Opportunity Fund Phase I Auction Scheduled for October 29, 2020; Notice and Filing Requirements and Other Procedures for Auction 904*, AU Docket No. 20-34 et al., Public Notice, 35 FCC Rcd 6077, 6146, paras. 209-12 (2020) (*Auction 904 Procedures Public Notice*); *Auction of Flexible-Use Service Licenses in the 3.7-3.98 GHz Band for Next-Generation Wireless Service; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 107; Bidding in Auction 107 Scheduled to Begin December 8, 2020*, AU Docket No. 20-25, Public Notice, 35 FCC Rcd 8404, 8451, paras. 154-56 (2020) (*Auction 107 Procedures Public Notice*).

<sup>9</sup> See T-Mobile Comments at 7.

<sup>10</sup> See T-Mobile Reply at 14. Several commenters express concerns with the resource demands of continually monitoring bidding. See AT&T Comments at 5; Select Spectrum Comments at 2; Voqal Reply at 2 & n.4; WISPA Reply at 11.

<sup>11</sup> See, e.g., *Auction 904 Procedures Public Notice*, 35 FCC Rcd at 6154-55, para. 241-43; *Broadcast Incentive Auction Scheduled to Begin March 29, 2016; Procedures for Competitive Bidding in Auction 1000, Including Initial Clearing Target Determination, Qualifying to Bid, and Bidding in Auctions 1001 (Reverse) and 1002 (Forward)*, AU Docket No. 14-252 et al., Public Notice, 30 FCC Rcd 8975, 9036, para. 113 (2015).

<sup>12</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 (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 4103, 4108, para. 12 (2018) (“[T]he similarities among blocks in the 24 GHz band facilitate using a clock auction with generic blocks, which will speed up the bidding relative to license-by-license bidding . . .”).

<sup>13</sup> See *Auction 108 Comment Public Notice*, 36 FCC Rcd at 656-57, para. 35.

<sup>14</sup> See *id.* at 653-54, paras. 22-26 (proposing a methodology for calculating upfront payments, which would determine bidding eligibility in bidding units). The clock auction procedures discussed herein do not impact the proposals described in the *Auction 108 Comment Public Notice* with respect to implementation of the Commission's Part 1 competitive bidding rules. See generally *id.* at 648-55, paras. 7-30.

eligibility for the clock auction format set forth below, an applicant would 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.

7. This Public Notice seeks focused input on whether the clock auction bidding format discussed herein would address issues raised by commenters with respect to both the SMR and single-round auction formats. It is not intended to invite further comment on other procedures proposed in the *Auction 108 Comment Public Notice* apart from auction design. In light of the limited scope of this Public Notice and comments urging the Commission to move expeditiously to the start of bidding,<sup>15</sup> we provide for a single round of comments by February 23, 2022, with no filing period for reply comments. A subsequent public notice will announce final procedures for Auction 108, including the procedures, terms, conditions, dates, and deadlines for applying to and participating in Auction 108, as well as provide an overview of the post-auction application and payment processes.

## II. FURTHER COMMENT SOUGHT ON BIDDING PROCEDURES

8. This Public Notice seeks comment on additional multiple-round auction procedures prompted by filings in this proceeding. In particular, we ask for feedback on the use of a clock auction format with bidding on specific licenses. This clock auction format, if adopted, would follow the basic structure of the ascending clock auction used in previous FCC spectrum clock auctions, in which bidding in the clock phase was conducted for multiple generic spectrum blocks in a category in a geographic area,<sup>16</sup> with adjustments, as described below, to account for the fact that Auction 108 would have only a single frequency-specific license in a category in a county. If the clock auction format were adopted for Auction 108, there would be up to three categories of licenses in each county, with one license block in each category. Accordingly, we refer to this specific format as a clock auction with a supply of one in each category—or a “clock-1” auction format. Unlike previous FCC spectrum clock auctions, Auction 108 would not include an assignment phase, as none is needed with a format that provides for bidding on specific licenses.<sup>17</sup>

9. We are releasing a technical guide concurrently with this Public Notice supplementing the information in it and providing the mathematical details and algorithms of the procedures described herein.<sup>18</sup>

### A. Clock-1 Auction Structure

10. Using the clock-1 format, if adopted, each bidder would be able to bid for licenses, where specific licenses will be identified by a category within a county.<sup>19</sup> As in the SMR auction format, the

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<sup>15</sup> See CCA Comments at 1, 9; T-Mobile Reply 3-4; Letter from Louis Peraertz, Vice President of Policy, WISPA, to Marlene H. Dortch, Secretary, FCC, AU Docket No. 20-429, at 2 (filed Oct. 8, 2021); Letter from Mark Nazé, CEO, Cellcom, et al. to Jessica Rosenworcel, Acting Chair, FCC, AU Docket No. 20-429 (filed Oct. 11, 2021); Letter from Allen Pratt, Executive Director, National Rural Education Association et al. to Jessica Rosenworcel, Acting Chair, FCC, AU Docket No. 20-429 (filed Nov. 9, 2021).

<sup>16</sup> See, e.g., *Auction 110 Procedures Public Notice*, 36 FCC Rcd at 9324-36, paras. 170-230; *Auction 107 Procedures Public Notice*, 35 FCC Rcd at 8451-61, paras. 152-201; *Auction of Priority Access Licenses for the 3550-3650 Band; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 105; Bidding in Auction 105 Scheduled to Begin June 25, 2020*, AU Docket No. 19-244, Public Notice, 35 FCC Rcd 2140, 2188-202, paras. 157-215 (2020) (*Auction 105 Procedures Public Notice*).

<sup>17</sup> See, e.g., *Auction 110 Procedures Public Notice* at 9324, 9336-39, paras. 170, 231-45.

<sup>18</sup> See 47 CFR §§ 0.271(a), 0.21(m). The Clock-1 Technical Guide details the procedures and provides examples for bidding in Auction 108 if a clock auction is adopted.

<sup>19</sup> See *Auction 108 Comment Public Notice*, 36 FCC Rcd at 656, para. 31; see also *id.* at 646, para. 2.

auction would proceed in a series of rounds, with bidding conducted simultaneously for all licenses available in the auction.<sup>20</sup> Consistent with prior FCC clock auctions, during each bidding round, the bidding system would announce a clock price for each license, and a bidder would indicate its demand for licenses at the clock prices associated with the current round.<sup>21</sup> After the first round, intra-round bids would also be allowed.<sup>22</sup>

11. The clock price for a license would increase from round to round if more than one bidder indicates demand for that license. The bidding rounds would continue until, for all licenses—that is, all categories in all counties—the number of bidders demanding each license does not exceed one. Once bidding rounds stop, the bidder with demand for a license becomes the winning bidder.

12. This Public Notice seeks comment on the specific procedures we describe here for conducting an auction of 2.5 GHz licenses, as an alternative approach that addresses the concerns of commenters with respect to the single-round and SMR formats described in the *Auction 108 Comment Public Notice*.

### 1. Single Licenses in Three Bidding Categories

13. Auction 108 will offer geographic overlay licenses for unassigned spectrum in the 2.5 GHz (2496–2690 MHz) band,<sup>23</sup> offered in up to three blocks of spectrum—49.5 megahertz, 50.5 megahertz, and 17.5 megahertz blocks—licensed on a county basis.<sup>24</sup> For bidding in this clock auction, in the counties where available, we would designate the 49.5 megahertz block as bidding category 1 (C1); the 50.5 megahertz block as bidding category 2 (C2); and the 17.5 megahertz block as bidding category 3 (C3).<sup>25</sup> Therefore, the combination of a bidding category and a county would define a single specific license, and bidding for a category and a county under the clock-1 auction format would constitute license-by-license bidding,<sup>26</sup> as in the SMR format.<sup>27</sup>

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<sup>20</sup> *Id.* at 663, para. 63.

<sup>21</sup> *See, e.g., Auction 110 Procedures Public Notice*, 36 FCC Rcd at 9324, paras. 172-73.

<sup>22</sup> *See* Section II.C.3 (Intra-Round Bids), below.

<sup>23</sup> With overlay licenses, licensees obtain the rights to geographic area licenses “overlaid” on top of the existing incumbent licenses. *Transforming the 2.5 GHz Band*, WT Docket No. 18-120, Report and Order, 34 FCC Rcd 5446, 5473, para. 77 (2019), modified, Erratum, 34 FCC Rcd 10386 (WTB 2019) (*2.5 GHz Report and Order*). As with an ordinary flexible-use license, the overlay licensee may operate anywhere within its geographic area, subject to protecting the licensed areas (i.e., circular Geographic Service Areas with a 35-mile radius) of incumbent licensees. *Id.* If an incumbent licensee in a county cancels or terminates its license, then the overlay licensee obtains the rights to operate in the geographic area and on the channel of the canceled license. *Id.* An overlay licensee may clear its geographic area by purchasing the incumbent licenses, but it does not have the exclusive right to negotiate with the incumbent licensee for its spectrum rights or to purchase an incumbent license in the geographic area in which it has the overlay rights. *Id.*

<sup>24</sup> *Id.* at 5480, 5481, paras. 93, 96; *see also Auction 108 Comment Public Notice*, 36 FCC Rcd at 646, para. 2.

<sup>25</sup> Specifically, the C1 license block would include channels A1–A3, B1–B3, C1–C3 (49.5 megahertz); the C2 license block would include channels D1–D3, the J channels, and channels A4–G4 (50.5 megahertz); and the C3 license block would include channels G1–G3 and the relevant K channels (16.5 megahertz of contiguous spectrum and 1 megahertz of the K channels associated with the G channel group). *See Auction 108 Comment Public Notice*, 36 FCC Rcd at 646, para. 2.

<sup>26</sup> In previous FCC clock auctions with multiple generic blocks in a category, the combination of a category and a geographic area is referred to as a “product.” *See, e.g., Auction 110 Procedures Public Notice*, 36 FCC Rcd at 9324, para. 173. In this clock auction with a supply of one block in each category, a “product” would be a single license.

## 2. Bidding Rounds

14. Under the clock-1 auction format, Auction 108 would consist of multiple, sequential bidding rounds, each followed by the release of round results, as would an SMR auction.<sup>28</sup> Bidding would be conducted simultaneously for all licenses—all categories in all counties available in the auction. In the first bidding round of Auction 108, a bidder would indicate, for each category and county, whether it demands the license at the minimum opening bid price. During each subsequent bidding round, the bidding system would announce a start-of-round price and a clock price for each license, and qualified bidders would indicate the licenses for which they wish to bid at the 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.

15. For each category and county—that is, each license—the clock price for a license would increase from round to round if more than one bidder indicates demand for that license. The bidding rounds would continue until, for every category and county, demand does not exceed one. At that point, the bidder still indicating demand for a license would be deemed the winning bidder.

16. As would be the case with the SMR format, the initial bidding schedule for a clock-1 auction would be announced in a public notice to be released at least one week before the start of bidding,<sup>29</sup> and OEA would retain the discretion to adjust the bidding schedule in order to foster an auction pace that reasonably balances speed with the bidders' needs to study round results and adjust their bidding strategies.<sup>30</sup> Such adjustments may include changes in the amount of time for bidding rounds, the amount of time between rounds, and/or the number of rounds per day, and would depend upon bidding activity and other factors.

17. Regardless of the format ultimately adopted, we would conduct Auction 108 over the Internet.<sup>31</sup> Under the clock-1 format, as with an SMR auction, a bidder would submit its bids using the bidding system's *upload* function, which allows bid files in a comma-separated values (CSV) text format to be uploaded.<sup>32</sup> The bidding system would allow a bidder to submit bids only for licenses in counties the bidder selected on its FCC Form 175 and for which the bidder has sufficient bidding eligibility.<sup>33</sup>

18. During each round of the bidding, a bidder would be able to modify its bids placed in the current bidding round. It would do so by uploading a new file of all its bids, including the modifications, which would replace bids previously submitted in the round. The system would take the last bid file submission as that bidder's bids for the round.

## 3. Stopping Rule

19. As in previous FCC clock and SMR auctions, with a clock-1 format for Auction 108, we would use a simultaneous stopping rule, under which all licenses would remain available for bidding until  
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<sup>27</sup> See *Auction 108 Comment Public Notice*, 36 FCC Rcd at 663, para. 63 (noting that the SMR auction format “offers every license for bid at the same time and consists of successive bidding rounds in which bidders may place bids on individual licenses.”).

<sup>28</sup> See *id.* at 664, para. 66.

<sup>29</sup> See *id.*

<sup>30</sup> See *id.* at 664, para. 68.

<sup>31</sup> See *id.* at 660, 664, paras. 45, 67.

<sup>32</sup> *Id.* at 664, para. 67.

<sup>33</sup> See *id.* at 653-54, paras. 22-24 (proposing that the amount of the upfront payment submitted by a bidder would determine its bidding eligibility in bidding units).

the bidding stops on all licenses.<sup>34</sup> Specifically, bidding would close for all licenses after the first round in which demand does not exceed one for any license. Consequently, under this approach, it is not possible to determine in advance how long Auction 108 would last.

#### 4. Availability of Bidding Information

20. The bidding system would disclose, after each round of Auction 108, clock auction round results analogous to those for an SMR auction:<sup>35</sup> namely, for each license, the aggregate demand, the posted price of the last completed round,<sup>36</sup> and the clock price for the next round. The identities of bidders making specific bids would not be disclosed until after the close of bidding in the auction.<sup>37</sup>

21. Each bidder would have access to additional information related to its own bidding and bid eligibility.<sup>38</sup> Specifically, after the bids of a round have been processed, the bidding system would inform each bidder of the licenses it currently demands (its processed demand) and its eligibility for the next round.

#### B. Activity Rule

22. 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, an approach that is routinely used in multiple-round auctions such as the SMR and the clock auction.<sup>39</sup> For a clock-1 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 (its processed demand). 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.<sup>40</sup> Failure to maintain the requisite activity level would result in a reduction in the bidder's eligibility, possibly curtailing or eliminating the bidder's ability to place bids in subsequent rounds of the auction.<sup>41</sup>

23. Under this auction format, a bidder would be required to maintain a fixed, high level of activity in each round of Auction 108 in order to maintain its bidding eligibility. Specifically, a bidder

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<sup>34</sup> See *id.* at 664-65, para. 69 (seeking comment on similar stopping rule for the SMR format); see also, e.g., *Auction 110 Procedures Public Notice*, 36 FCC Rcd at 9327, para. 186; *Auction 107 Procedures Public Notice*, 35 FCC Rcd at 8453, para. 164; *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, 7637-38, paras. 191-93 (2018) (*Auctions 101 and 102 Procedures Public Notice*). 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).

<sup>35</sup> See *Auction 108 Comment Public Notice*, 36 FCC Rcd at 664, para. 66.

<sup>36</sup> The posted price of the previous round is, generally, the start-of-round price if supply exceeds demand; the clock price of the previous round if demand exceeds supply; or the price at which a reduction caused demand to equal supply. Note that, for Auction 108, supply equals one. See Clock-1 Technical Guide for more details.

<sup>37</sup> See *Auction 108 Comment Public Notice*, 36 FCC Rcd at 653, para. 18 (outlining the same information procedures for the SMR format).

<sup>38</sup> See *id.* at 653, para. 19.

<sup>39</sup> See, e.g., *Auction 110 Procedures Public Notice*, 36 FCC Rcd at 9328, paras. 191-93; *Auctions 101 and 102 Procedures Public Notice*, 33 FCC Rcd at 7634-35, para. 181.

<sup>40</sup> See *Auction 108 Comment Public Notice*, 36 FCC Rcd at 665, para. 72 (describing similar activity rule for the SMR format).

<sup>41</sup> See *id.*

would be required to be active on between 90% and 100% of its bidding eligibility in all rounds, with the specific percentage within this range to be set for each round. Thus, the activity rule would be satisfied when a bidder has bidding activity on licenses with bidding units that total 90% to 100% of its current eligibility in the round. We would set the activity requirement percentage initially at 95%. If the activity rule is met, then the bidder's eligibility would not change for the next round. If the activity rule is not met in a round, the bidder's eligibility would be reduced accordingly. Bidding activity would be based on the bids that are applied by the FCC auction bidding system. That is, if a bidder bids to reduce its demand for a license, but the FCC auction bidding system cannot apply the request because demand for that license would fall below one, then the bidder's activity would reflect its unreduced demand.<sup>42</sup>

24. OEA would retain the discretion to change the activity requirement 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.

25. *Contingent Bidding Limit.* This Public Notice seeks comment on procedures by which, after Round 1,<sup>43</sup> a bidder may submit bids with bidding units totaling up to a *contingent bidding limit* greater than or equal to the bidder's current bidding eligibility for the round, as in the three most recent FCC clock auctions (Auction 105, Auction 107, and Auction 110).<sup>44</sup> A bidder's contingent bidding limit would be calculated as its current eligibility times a *contingent bidding percentage* equal to or greater than 100%.<sup>45</sup>

26. Allowing a bidder to submit bids with associated bidding activity greater than its current bidding eligibility would potentially help a bidder avoid having its eligibility reduced as a result of submitted bids that could not be applied during bid processing. However, even under these additional procedures, the bidder's activity as applied by the auction system during bid processing would not exceed the bidder's current bidding eligibility.<sup>46</sup> That is, if a bidder were allowed to submit bids with associated bidding units exceeding 100% of its current bidding eligibility, its processed activity would never exceed its eligibility.

27. This Public Notice seeks comment on whether we should allow bidders to submit bids with associated bidding activity greater than their current bidding eligibility. If adopted, we would set the initial contingent bidding percentage at 120%, which would apply starting in Round 2, subject to change in subsequent rounds within a range of 100% to 140%. In any bidding round, the auction bidding system

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<sup>42</sup> Under the clock-1 format, the FCC auction bidding system would not apply a bid to reduce demand for an individual license if the reduction would cause the aggregate demand for that license to drop to zero (i.e., below the available supply of one). See Section II.D.1 (No Excess Supply Rule for Bids to Reduce Demand), below.

<sup>43</sup> In Round 1, a bidder would be allowed to submit bids with bidding units totaling up to the bidder's initial bidding eligibility.

<sup>44</sup> See *Auction 105 Procedures Public Notice*, 35 FCC Rcd at 2194-95, paras. 182-84; *Auction 107 Procedures Public Notice*, 35 FCC Rcd at 8455-56, paras. 172-76; *Auction 110 Procedures Public Notice*, 36 FCC Rcd at 9328-29, paras. 194-95.

<sup>45</sup> The Commission has previously referred to the *contingent bidding limit* as the *activity upper limit*, and similarly, to the *contingent bidding percentage* as the *activity limit percentage*. See *Auction 105 Procedures Public Notice*, 35 FCC Rcd at 2194-95, paras. 182-84; *Auction 107 Procedures Public Notice*, 35 FCC Rcd at 8455-56, paras. 172-76. We modified those terms before Auction 110 to remind bidders that bids submitted using the contingent bidding limit will be applied only under certain circumstances. For Round 1, the contingent bidding limit would be 100% of the bidder's initial bidding eligibility.

<sup>46</sup> See Section II.D.3 (Processed Demand), below.



would advise the bidder of its current bidding eligibility, its required bidding activity, and its contingent bidding limit.

### C. Acceptable Bids

#### 1. Minimum Opening Bids

28. Minimum opening bids would serve as initial clock prices under a clock-1 auction format. In Round 1 of the auction, qualified bidders would indicate the licenses they demand at the minimum opening bids. We seek comment on whether use of a clock-1 auction format would warrant any change to the minimum opening bids proposed in the *Auction 108 Comment Public Notice*.<sup>47</sup>

#### 2. Clock Price Increments

29. Under clock-1 procedures for Auction 108, after bidding in the first round and before each subsequent round, for each license, the FCC auction bidding system would announce the start-of-round price<sup>48</sup> and the clock price for the upcoming round—that is, the lowest price and the highest price at which bidders can indicate their demand for the license during the round. As long as aggregate demand for the license exceeds one, the start-of-round price would be equal to the clock price from the prior round. If demand equaled one 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 one. If demand was zero in the previous round, then the start-of-round price for the next round would not increase.

30. The clock price for a license for a round would be set by adding a percentage increment to the start-of-round price.<sup>49</sup> OEA would set the increment percentage within a range of 5% to 30% inclusive, with the initial increment percentage at 10%, and potentially would adjust the increment as rounds continue. OEA would retain the discretion to cap the increment if the total dollar amount of the increment (the difference between the clock price and the start-of-round price) would exceed a certain amount. The 5% to 30% increment range and cap would 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.<sup>50</sup>

#### 3. Intra-Round Bids

31. The use of intra-round bidding has been suggested as a method of reducing the number of bidding rounds needed for the auction to reach equilibrium prices.<sup>51</sup> Intra-round bidding could be

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<sup>47</sup> See *Auction 108 Comment Public Notice*, 36 FCC Rcd at 660, 667, paras. 46-47, 78-82, Attach. A (proposing minimum opening bid amounts for each license calculated based on \$0.006 per MHz-pop, with a minimum of \$500 per license). Attachment A to the *Auction 108 Comment Public Notice* lists the proposed minimum opening bid for each license. The Attachment A file may be viewed on the Auction 108 website at [www.fcc.gov/auction/108](http://www.fcc.gov/auction/108).

<sup>48</sup> The start-of-round price is also referred to as the posted price of the previous round.

<sup>49</sup> For example, if the start-of-round price for a license is \$10,000, and the percentage increment is 20%, then the clock price for the round will be \$12,000. The result of the clock price calculation will be rounded up to the nearest \$1,000 for results above \$10,000; rounded up to the nearest \$100 for results below \$10,000 but above \$1,000; and rounded up to the nearest \$10 for results below \$1,000.

<sup>50</sup> See T-Mobile Reply at 14 (suggesting that the Commission could adjust bid increments to speed up the pace of the auction).

<sup>51</sup> Incorporating intra-round bidding into the basic FCC SMR auction format would be a fundamental change to the SMR auction mechanism, and is not being considered. Among other things, such a change would turn a familiar auction format into an unfamiliar one, which is contrary to commenter objectives in the current context. See DISH Reply at 6-7. T-Mobile also suggests using a limitation on switching, a feature used in the descending clock USF auctions, but such a limitation could interfere with price arbitrage across potentially substitutable licenses in this context, and we do not include a switching limit in the procedures we describe here. See T-Mobile Comments at 7.

particularly useful in the instant context given the number of licenses being offered, such that there would be more benefit than usual in reducing the number of bidding rounds. While the Commission has never conducted an SMR auction with intra-round bidding, it is a familiar feature of the Commission's recent clock auctions.<sup>52</sup> To address commenters' concerns about the length of a multiple-round auction while also being mindful of comments that the use of a familiar auction format would foster participation,<sup>53</sup> this Public Notice seeks comment on use of intra-round bidding under the clock-1 format. Could intra-round bidding be useful in reducing the number of bidding rounds needed for the auction to reach equilibrium prices?

32. In a clock-1 auction, in a round after the first round, a bidder would be permitted to make intra-round bids by indicating a point between the start-of-round price and the clock price at which its demand for a license changes.<sup>54</sup> In placing an intra-round bid for a license, a bidder would indicate a specific price and the changed quantity it demands (either zero or one) if the price for the license should increase beyond that price. For example, if a bidder has processed demand for a license at the start-of-round price of \$200, but no longer wants the license if the price increases by more than \$10, the bidder would indicate a bid quantity of zero at a price of \$210. Similarly, if the bidder wishes to reduce its demand to zero if the price increases at all above \$200, the bidder would indicate a bid quantity of zero at the start-of-round price of \$200.

33. Intra-round bid amounts would be limited to multiples of \$10 for prices below \$10,000; to multiples of \$100 for prices between \$10,000 and \$100,000, inclusive; and to multiples of \$1,000 for prices above \$100,000.

34. Intra-round bids would be optional; a bidder may choose to express its demands only at the start-of-round price or the clock price. Using intra-round bidding would allow the auction system to use relatively large percentage increments, thereby speeding up the auction,<sup>55</sup> without running the risk that a jump in the clock price will overshoot the market clearing price—the point at which only one bidder demands the license—because bidders could specify an amount lower than the clock price.

#### 4. Proxy Bids

35. To address commenters' concerns that monitoring every round of a multiple-round auction may be burdensome, especially for smaller bidders,<sup>56</sup> this Public Notice seeks comment on providing each bidder with the option to use proxy bidding under the clock-1 format.<sup>57</sup> We would permit a bidder to submit a proxy instruction to the bidding system to reduce its demand for a license to zero at a price higher than the current round's clock price.<sup>58</sup> Proxy instructions to increase a bidder's demand for a license at a given price would not be permitted.<sup>59</sup>

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<sup>52</sup> See, e.g., *Auction 110 Procedures Public Notice*, 36 FCC Rcd at 9332, paras. 209-10; *Auction 105 Procedures Public Notice*, 35 FCC Rcd at 2199, paras. 197-98.

<sup>53</sup> See Rural 2.5 Consortium Comments at 5; T-Mobile Comments at 4-5; U.S. Cellular Comments at 2; CCA Reply at 2; RWA Reply at 2.

<sup>54</sup> See T-Mobile Comments at 7; T-Mobile Feb. 18 *Ex Parte* at 4-5.

<sup>55</sup> See T-Mobile Comments at 7; T-Mobile Reply at 14.

<sup>56</sup> See, e.g., AT&T Comments at 5; NACEPF/Mobile Beacon Comments at 7-8; Select Spectrum Comments at 2; Voqal Reply at 2; WISPA Reply at 11.

<sup>57</sup> See T-Mobile Reply at 14 (suggesting the Commission could employ proxy bidding to alleviate concerns that bidders must monitor the auction consistently).

<sup>58</sup> A bidder would submit its proxy instructions along with its bids, using the bidding system's *upload* function described in Section II.A.2 (Bidding Rounds), above.

36. Under these procedures, if a proxy instruction has been submitted, the bidding system would automatically submit a proxy bid to maintain the bidder's demand for the license in every subsequent round as long as the clock price for the round is less than the proxy instruction price. In the first round in which the clock price is greater than or equal to the proxy instruction price, the bidding system would submit a proxy bid on behalf of the bidder to reduce the bidder's demand for that license to zero at the proxy instruction price. For example, if a bidder has processed demand for a license with a clock price of \$1,000, but the bidder is only willing to purchase the license for a price up to \$1,800, the bidder could submit a proxy instruction to reduce its demand for the license to 0 at \$1,800. In that case, the bidding system would submit proxy bids to maintain the bidder's demand for the license in each subsequent round as long as the clock price is less than \$1,800.

37. In the case that a bid to reduce demand, placed according to proxy instructions or submitted by the bidder in the round, is not applied during bid processing, the bidding system would automatically generate a proxy instruction at the bid price and, in the following rounds, submit proxy bids on behalf of the bidder according to that proxy instruction. For example, suppose that the start-of-round price for a license is \$10,000, the clock price is \$12,000, and a bidder with processed demand for the license submits a bid to reduce its demand to 0 at price \$11,500. If the bid is not applied during bid processing (e.g., because there were no other bids for the license in the round), in the following round the bidding system would submit a proxy bid on behalf of the bidder to reduce demand for the license to 0 at price \$11,500. The proxy instruction preserves in the bidding system the bidder's interest in retaining demand for the license at a price no higher than \$11,500, which may help avoid having the license sold later in the auction to another bidder at a price less than what the initial bidder is willing to pay.<sup>60</sup>

38. In any round, a bidder can remove or modify any existing proxy instructions or proxy bids for the round by uploading a new bid file, including the modifications, which would replace any bids and proxy instructions previously submitted. The system would take the last bid file submission as that bidder's bids and proxy instructions.

39. As is the case for intra-round bid amounts, proxy instruction prices would be limited to multiples of \$10 for prices below \$10,000; to multiples of \$100 for prices between \$10,000 and \$100,000, inclusive; and to multiples of \$1,000 for prices above \$100,000. Proxy instructions would not be publicly released either during or after the auction.

## 5. Bid Types

40. Under a clock-1 auction format for Auction 108, as in other FCC spectrum clock auctions, a bidder would indicate in each round the licenses it demands at the prices associated with the round. Bidders would be permitted to make two types of bids: simple bids and switch bids.<sup>61</sup>

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

<sup>59</sup> Proxy instructions were used in the Commission's reverse clock auction for USF support but have not been used in FCC clock auctions for spectrum licenses to date. See, e.g., *Auction 904 Procedures Public Notice*, 35 FCC Rcd at 6154-55, paras. 241-43; *Connect America Fund Phase II Auction Scheduled for July 24, 2018 Notice and Filing Requirements and Other Procedures for Auction 903*, AU Docket No. 17-182 et al., Public Notice, 33 FCC Rcd 1428, 1504-05, paras. 244-48 (2018).

<sup>60</sup> For instance, suppose that there were no other bids for the license in the round and thus the start-of-round price for the following round is \$10,000. If there are no further bids in the auction for the license, the bidder would win the license at \$10,000. However, after many rounds with no further activity on the license, another bidder may bid and, absent the proxy instruction, potentially win the license at a price above the start-of-round price of \$10,000 but below \$11,500. A proxy bid placed at \$11,500 (according to the automatically generated proxy instruction) would prevent the license from being sold to another bidder at a price the initial bidder would have been willing to pay.

<sup>61</sup> See, e.g., *Auction 110 Procedures Public Notice*, 36 FCC Rcd at 9332, para. 214.

41. A “simple” bid indicates a desired quantity (in this auction, one or zero) at a price. A bidder that is willing to maintain its demand for a license at the new clock price would bid for the license at the clock price, indicating that it is willing to pay up to that price, if need be, for the license. A bidder that wishes to change the quantity it demands for a license (relative to its processed demand from the previous round) would express the price (either the clock price or an intra-round price) at which it wishes to change its demand.

42. A “switch” bid allows the bidder to request to move its demand for a license from C1 to C2, or vice versa, within the same county at a price for the “from” category (either the clock price or an intra-round price).<sup>62</sup> “Switch” bids are allowed only in counties with both an available Category 1 and a Category 2 license.

43. Bids to maintain demand would always be applied by the auction bidding system during bid processing. Simple bids to change demand and switch bids would not necessarily be applied during bid processing. See Section II.D (Bid Processing) below for details on bid processing.

## 6. Missing Bids

44. Under the clock-1 auction format, a bidder would be required to indicate its demands in every round (as in other FCC spectrum clock auctions) or have a proxy instruction in place, even if its demands at the new round’s prices are unchanged from the previous round.<sup>63</sup> If a bidder does not submit a new bid for a license for which it had processed demand from the previous round and does not have a proxy instruction in place, the system will consider that a missing bid.

45. Missing bids are treated by the auction bidding system as requests to reduce to a quantity of zero for the license. If these requests are applied, then a bidder’s bidding activity, and its bidding eligibility for the next round, may be reduced. Unlike in previous FCC clock auctions, under the clock-1 format for Auction 108, a bidder would be permitted to enter proxy instructions. Thus, a bidder that is unable to indicate its demands in every round can avoid having missing bids by entering appropriate proxy instructions.

## D. Bid Processing

46. After each bidding round, bid processing procedures would process bids to change demand to determine the *processed demand* of each bidder for each license and a *posted price* for each license that would serve as the start-of-round price for the next round. The bid processing procedures described below are similar in many respects to other FCC spectrum clock auctions.<sup>64</sup>

### 1. No Excess Supply Rule for Bids to Reduce Demand

47. Under the clock-1 auction format, the FCC auction bidding system would not allow a bidder to reduce its demand for a license if the reduction would cause demand to fall below one. Therefore, if a bidder has been bidding for a specific license but submits a simple bid to reduce its demand to zero for the license if the price should increase above the price in its bid, the FCC auction bidding system would treat the bid as a request to reduce demand that would be applied only if the “no excess supply” rule would be satisfied. Similarly, if a bidder submits a switch bid to move its demand from the C1 license to the C2 license in the same county, the FCC auction bidding system would treat the

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<sup>62</sup> See Clock-1 Technical Guide for more details on switch bids and other auction procedures.

<sup>63</sup> See, e.g., *Auction 110 Procedures Public Notice*, 36 FCC Rcd at 9329, para. 198.

<sup>64</sup> See, e.g., *id.* at 9333-34, 9335-36, paras. 217-20, 223-29; *Auction 107 Procedures Public Notice*, 35 FCC Rcd at 8459-60, 8460-6, paras. 191-92, 194-200; *Auction 105 Procedures Public Notice*, 35 FCC Rcd at 2199-200, 2200-01, paras. 201-02, 204-10.

bid as a request that would be applied only if the “no excess supply” rule would be satisfied for C1 in the county, and vice versa.<sup>65</sup>

## **2. Eligibility Rule for Bids to Increase Demand**

48. The bidding system would not allow a bidder to increase its demands for licenses if the total number of bidding units associated with the bidder’s demands exceeds the bidder’s bidding eligibility for the round. Therefore, if a bidder submits a simple bid to add a license for which it did not have processed demand in the previous round, the FCC auction bidding system would treat the bid as a request to increase demand that would be applied only if that would not cause the bidder’s activity to exceed its eligibility.<sup>66</sup>

## **3. Processed Demand**

49. After a round ends, the bidding system would first consider and apply all bids to maintain demand, and then it would process bids to change demand in order of price point, where the price point represents the percentage of the bidding interval for the round. The 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 licenses, then look at bids at the next price point across all licenses, and so on.<sup>67</sup> As it considers each submitted bid during bid processing, the FCC auction bidding system would determine whether there is excess demand for a license at that point in the processing in order to determine whether a bidder’s request to reduce demand for that license 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.

50. 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, bids that were not applied because demand would fall below one or because the bidder’s activity (as applied by the auction system) would exceed its eligibility would be held in a queue and considered, again in price point order, if there should be excess demand or if the bidder’s activity (as applied by the auction system) is reduced sufficiently later in the processing after other bids are processed.

51. Therefore, 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 whether that bid can be applied given bidders’ demands as determined at that point in the bid processing. If the bid can be applied, the licenses that the bidder holds at that point in the processing would be adjusted, and aggregate demand for the license would be recalculated accordingly. If the bid cannot be applied, the unfulfilled bid 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 lowest price point, applying it or not 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 is applied, the unfulfilled

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<sup>65</sup> Note, however, if a bid to reduce demand is not applied, the bidder will not be asked to pay more for the license than the highest price it agreed to pay. *See* Section II.D.4 (Price Determination), below.

<sup>66</sup> The eligibility rule for bids to increase demand is always satisfied for switch bids because the bidder’s processed activity does not change when a switch bid is applied (since, in a given county, the C1 and C2 licenses have the same number of bidding units).

<sup>67</sup> If there are multiple bids at a single price point, the system would process bids in order of a bid-specific pseudo-random number.

bids held in the queue would be reconsidered, in the order of the original price points of the bids (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.<sup>68</sup> The bidding system would advise bidders of the status of their bids when round results are released.

#### **4. Price Determination**

52. The FCC auction bidding system further would determine, based on aggregate demand, the posted price for each license for the round that would serve as the start-of-round price for the next round. The price for a license would increase from round to round as long as there is excess demand for the license but would not increase if only a single bidder demands the license.

53. If, at the end of a round, the aggregate demand for a license exceeds the supply of one, the posted price would equal the clock price for the round. If a reduction in demand was applied during the round and caused demand to fall to one, the posted price would be the price at which the reduction was applied. If aggregate demand is zero, or one and no bid to reduce demand was applied for the license, 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.

54. Under these procedures for a clock-1 auction, if a bid to reduce demand is not applied, it is because there is not excess demand for the license and, therefore, the posted price would not increase. Hence, a bidder that makes a bid to reduce demand that cannot be applied would not face a price for the license that is higher than its bid price.

55. 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 the licenses for which it has processed demand and the extent of excess demand for the licenses.

#### **E. Winning Bids**

56. Under a clock-1 auction format for Auction 108, a bidder with processed demand for a license at the time the stopping rule is met would become the winning bidder for the license. The final price for a license would be the posted price for the final round.<sup>69</sup>

#### **F. Digital Equity and Inclusion**

57. Finally, as part of the Commission's continuing effort to advance digital equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality, we invite comment on any equity-related considerations and benefits (if any) that may be associated with the issues discussed herein. Specifically, we seek comment on how any bidding procedures for Auction 108 may promote or inhibit advances in diversity, equity, inclusion, and accessibility.

### **III. PROCEDURAL MATTERS**

#### **A. Second Supplemental Initial Regulatory Flexibility Analysis**

58. We have prepared this Second Supplemental Initial Regulatory Flexibility Analysis (Second Supplemental IRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this Public Notice to supplement the Regulatory Flexibility Analyses completed in

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<sup>68</sup> The bidding system, however, would generate a proxy bid in the case of bids to reduce to zero that are not applied. See Section II.C.4 (Proxy Bids), above.

<sup>69</sup> This and other bid processing details are addressed in the Clock-1 Technical Guide.

the *2.5 GHz Report and Order*, *Auction 108 Comment Public Notice*, and other Commission orders pursuant to which Auction 108 will be conducted.<sup>70</sup> Written public comments are requested on this Second Supplemental IRFA. Comments must be identified as responses to the Second Supplemental IRFA and must be filed by the same deadline for comments specified on the first page of this Public Notice. We will send a copy of this Public Notice, including this Second Supplemental IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).<sup>71</sup> In addition, this Public Notice and Second Supplemental IRFA (or summaries thereof) will be published in the *Federal Register*.<sup>72</sup>

59. *Need for, and Objectives of, the Proposed Rules.* This Public Notice seeks further comment on procedural rules to govern Auction 108, which will auction geographic overlay licenses of unlicensed spectrum in the 2.5 GHz band (2496–2690 MHz). This process is intended to provide notice of and adequate time for potential applicants to comment on these additional auction procedures.<sup>73</sup> To promote the efficient and fair administration of the competitive bidding process for all Auction 108 participants, this Public Notice seeks further comment on the use of a clock auction format, including the following modified bidding procedures that would address concerns and suggestions raised by commenters, including small entities, in response to the *Auction 108 Comment Public Notice*:

- use of a clock auction format with a supply of one for Auction 108, under which each qualified bidder would indicate in successive clock bidding rounds its demand for the single license in each category in each specific geographic area;
- establishment of categories based on the framework set forth in the *2.5 GHz Report and Order*, in which up to three blocks of spectrum—49.5 megahertz, 50.5 megahertz, and 17.5 megahertz blocks—would be offered in each available county;
- retention by OEA of discretion to adjust the bidding schedule in order to manage the pace of Auction 108;
- use of a simultaneous stopping rule for Auction 108, under which all licenses would remain available for bidding until the bidding stops on all licenses;
- use of information procedures which would make public after each round of Auction 108, for each category in each county, the aggregate demand, the posted price of the last completed round, and the clock price for the next round;
- use of an activity rule that would require bidders to be active on between 90% and 100% of their bidding eligibility in all regular clock rounds, with the initial activity requirement percentage set at 95% and with OEA retaining discretion to change the activity requirement percentage during the auction;
- use of a contingent bidding limit that would allow a bidder to submit bids with associated bidding activity greater than its current bidding eligibility;

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<sup>70</sup> See, e.g., *Transforming the 2.5 GHz Band*, WT Docket No. 18-120, Report and Order, Appx. B, 34 FCC Rcd 10386, 5503-10, paras. 1-28 (2019) (*2.5 GHz Report and Order*); *Auction 108 Comment Public Notice*, 36 FCC Rcd at 671, paras. 101-19.

<sup>71</sup> See 5 U.S.C. § 603(a).

<sup>72</sup> See *id.*

<sup>73</sup> See 47 U.S.C. § 309(j)(3)(E)(i) (requiring the Commission to seek comment on auction procedures).

- establishment of an initial contingent bidding percentage at 120%, which would be subject to change in subsequent rounds within a range of 100% to 140%;
- a specific minimum opening bid amount for licenses available in Auction 108;
- establishment of acceptable bid amounts, including clock price increments and intra-round bids, along with a methodology for calculating such amounts;
- to permit a bidder to submit a proxy instruction to reduce its demand for a license to zero at a price higher than the current round's clock price;
- to permit bidders to make two types of bids, simple bids and switch bids, in which a "simple" bid indicates a desired quantity of blocks (one or zero) for a license at a price (either the clock price or an intra-round price), and a "switch" bid allows the bidder to request to move its demand from C1 to C2, or vice versa, within the same county at a price for the "from" category (either the clock price or an intra-round price);
- a requirement that bidders indicate their demands in every round or submit appropriate proxy instructions, even if their demands at the new round's prices are unchanged from the previous round, and the treatment of bids that are not reconfirmed as requests to reduce demand to a quantity of zero for the license; and
- a methodology for processing bids and requests to reduce and increase demand.

60. The procedures for the conduct of Auction 108 on which this Public Notice seeks further comment constitute the more specific implementation of the competitive bidding rules contemplated by Parts 1 and 27 of the Commission's rules, the *2.5 GHz Report and Order*, and relevant competitive bidding orders, and are fully consistent therewith.<sup>74</sup>

61. *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 auctions program in 1994 and would conduct Auction 108.<sup>75</sup>

62. *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>76</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>77</sup> In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.<sup>78</sup> A "small

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<sup>74</sup> See generally *Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, PP Docket No. 93-253, Second Report and Order, 9 FCC Rcd 2348, 2360-75, paras. 68-159 (1994) (*Competitive Bidding Second Report and Order*).

<sup>75</sup> See generally 47 CFR Part 1, Subpart Q; see also *id.* §§ 73.5000, 73.5002-.5003, 73.5005-.5009.

<sup>76</sup> 5 U.S.C. § 603(b)(3).

<sup>77</sup> *Id.* § 601(6).

<sup>78</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, (continued...)"



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>79</sup>

63. As noted above, Regulatory Flexibility Analyses were incorporated into the *2.5 GHz Report and Order* and the *Auction 108 Comment Public Notice*. In those analyses, we described in detail the small entities that might be significantly affected. In this Public Notice, we hereby incorporate by reference the descriptions and estimates of the number of small entities from the previous Regulatory Flexibility Analyses in the *2.5 GHz Report and Order* and the *Auction 108 Comment Public Notice*.<sup>80</sup>

64. *Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities.* We do not expect the processes and procedures described in this Public Notice will require small entities to hire attorneys, engineers, consultants, or other professionals to participate in Auction 108 and comply with the procedures we ultimately establish because of the information, resources, and guidance we make available to potential and actual participants. For example, we intend to make information on the bidding system available and offer demonstrations and other educational opportunities for applicants in Auction 108 to familiarize themselves with the FCC auction application system and the auction bidding system, consistent with the additional bidding procedures described in this Public Notice. By providing these resources as well as the resources discussed below, we expect small entities that use the available resources to experience lower participation and compliance costs. Nevertheless, while we cannot quantify the cost of compliance with the procedures on which we seek further comment, we do not believe that the costs of compliance will unduly burden small entities that choose to participate in the auction because the additional procedures for Auction 108 on which this Public Notice seeks further comment are similar in many respects to the procedures in recent spectrum auctions conducted by the Commission.<sup>81</sup>

65. *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>82</sup>

66. We have taken steps to minimize any economic impact of our additional procedures on small entities through, among other things, the Commission’s potential use of a clock auction format. Among the comments that we received in response to the *Auction 108 Comment Public Notice* were

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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>79</sup> 15 U.S.C. § 632.

<sup>80</sup> See *2.5 GHz Report and Order*, Appx. B, 34 FCC Rcd at 5504-07, paras. 6-15; *Auction 108 Comment Public Notice*, 36 FCC Rcd at 674, para. 109 (incorporating by reference the descriptions and estimates of the number of small entities from the previous Regulatory Flexibility Analyses in the *2.5 GHz NPRM* and the *2.5 GHz Report and Order*).

<sup>81</sup> See, e.g., *Auction 110 Procedures Public Notice*, 36 FCC Rcd at 9324-36, paras. 170-230 (establishing clock auction procedures for Auction 110); *Auction 107 Procedures Public Notice*, 35 FCC Rcd at 8451-61, paras. 152-201 (establishing clock auction procedures for Auction 107).

<sup>82</sup> 5 U.S.C. § 603(c)(1)-(4).

several that support the SMR format at least in part because it is familiar to bidders, suggesting that small entities may be deterred from participating under the single-round format with package bidding described in the *Auction 108 Comment Public Notice*. The potential length of an SMR auction, however, is seen by some commenters as a disadvantage. With those comments in mind, the clock auction format on which this Public Notice seeks comment would be a familiar format to small entities that have previously participated in Commission auctions, and would consist of multiple rounds of bidding and incorporate intra-round bidding to potentially help manage the duration of the auction, thereby lessening the burden of a multiple-round auction on small entities. In addition, bidders would have an option to choose to use proxy bid instructions to reduce the time they spend monitoring the auction, further benefitting small entities.

67. We have also taken steps to minimize any economic impact of our auction procedures on small entities through, among other things, the many resources we provide potential auction participants. These resources, which are described in detail in the Supplemental IRFA incorporated into the *Auction 108 Comment Public Notice* are provided at no cost and include, for example, access to an FCC Auctions Hotline for information about the auction process and procedures; an FCC Auctions Technical Support Hotline for technical assistance on issues such as access to or navigation within the electronic FCC Form 175 and use of the FCC's auction bidding system; a web-based, interactive online tutorial produced by Commission staff to familiarize applicants with auction procedures, filing requirements, bidding procedures, and other matters related to an auction; the opportunity to participate in a mock auction; and the opportunity to participate in Auction 108 electronically via the Internet. Additionally, eligible small businesses and rural service providers will be able to participate in the bidding credit program for Auction 108, which may lower their relative costs of participation. In this Public Notice, we hereby incorporate by reference the description of the additional steps taken to minimize the significant economic impact on small entities, and significant alternatives considered, from the Regulatory Flexibility Analysis in the *Auction 108 Comment Public Notice*.<sup>83</sup>

68. These procedures for the conduct of Auction 108 on which this Public Notice seeks further comment constitute the more specific implementation of the competitive bidding rules contemplated by Parts 1 and 27 of the Commission's rules, the *2.5 GHz Report and Order*, and relevant competitive bidding orders, and are fully consistent therewith.<sup>84</sup>

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

## **B. Deadlines and Filing Procedures**

70. Pursuant to sections 1.415(d) and 1.419 of the Commission's rules,<sup>85</sup> interested parties may file comments on or before February 23, 2022, in AU Docket No. 20-429. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.<sup>86</sup> We strongly encourage interested parties to file comments electronically.

- *Electronic Filers.* Comments may be filed electronically using the Internet by accessing the ECFS: [www.fcc.gov/ecfs](http://www.fcc.gov/ecfs).
- *Paper Filers.* Parties who choose to file by paper must file an original and one copy of each filing.

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<sup>83</sup> See *Auction 108 Comment Public Notice*, 36 FCC Rcd at 675-76, paras. 114-16.

<sup>84</sup> See generally *Competitive Bidding Second Report and Order*, 9 FCC Rcd at 2360-75, paras. 68-159.

<sup>85</sup> 47 CFR §§ 1.415(d), 1.419.

<sup>86</sup> See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24121 (1998).

71. Filings in response to this Public Notice can be sent 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.

- 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 45 L Street NE, Washington, DC 20554.
- Until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19.<sup>87</sup>

72. *E-mail.* We also request that a copy of all comments be submitted electronically to the following address: [auction108@fcc.gov](mailto:auction108@fcc.gov).

73. *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).

74. *Ex Parte Requirements.* This proceeding has been designated as a “permit-but-disclose” proceeding in accordance with the Commission's *ex parte* rules.<sup>88</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 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.

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<sup>87</sup> See *FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy*, Public Notice, 35 FCC Rcd 2788 (OMD 2020), available at [www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy](http://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy).

<sup>88</sup> See 47 CFR §§ 1.1200(a), 1.1206.

**C. Contact Information**

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

**Broadband Division, Wireless Telecommunications Bureau**

2.5 GHz band licensing questions: Madelaine Maior at (202) 418-1466 or  
Nadja Sodos-Wallace at (202) 418-0955

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

Auction legal questions: Daniel Habif, Scott Mackoul, or Lyndsey  
Grunewald 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

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