



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
1919 M STREET, N.W.
WASHINGTON, D.C. 20554

News Media Information: (202) 418-0500
Fax-On-Demand: (202) 418-2830
Internet: <http://www.fcc.gov>
<ftp.fcc.gov>

DA 98-48
January 13, 1998

COMMENT SOUGHT ON RESERVE PRICES OR MINIMUM OPENING BIDS AND OTHER AUCTION PROCEDURAL ISSUES FOR THE PHASE II 220 MHz SERVICE

Phase II 220 MHz Formula Proposed

Report No. AUC-97-18-A (Auction No. 18)

I. Reserve Price or Minimum Opening Bid

The Balanced Budget Act of 1997 calls upon the Commission to prescribe methods by which a reasonable reserve price will be required or a minimum opening bid established when FCC licenses are subject to auction (*i.e.*, because they are mutually exclusive), unless the Commission determines that a reserve price or minimum bid is not in the public interest.¹ Consistent with this mandate, the Commission has directed the Wireless Telecommunications Bureau ("Bureau") to seek comment on the use of a minimum opening bid and/or reserve price prior to the start of each auction.² The Bureau was directed to seek comment on the methodology to be employed in establishing each of these mechanisms. Among other factors the Bureau should consider is the amount of spectrum being auctioned, levels of incumbency, the availability of technology to provide service, the size of the geographic service areas, the extent of interference with other spectrum bands, and any other relevant factors that could

¹ Section 3002(a), Balanced Budget Act of 1997, Pub. L. 105-33, 111 Stat. 251 (1997) ("Budget Act"); 47 U.S.C. § 309(j)(4)(F). The Commission's authority to establish a reserve price or minimum opening bid is set forth in 47 C.F.R. § 1.2104(c) and (d).

² See In the Matter of Amendment of Part 1 of the Commission's Rules -- Competitive Bidding Procedures, Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use, 4660-4685 MHz, WT Docket No. 97-82, ET Docket No. 94-32, FCC 97-413, *Third Report and Order and Second Further Notice of Proposed Rule Making* (rel. December 31, 1997) at ¶ 141 ("Part 1 Third Report and Order").

reasonably have an impact on valuation of the spectrum being auctioned. The Commission concluded that the Bureau should have the discretion to employ either or both of these mechanisms for future auctions.³

Normally, a reserve price is an absolute minimum price below which an item will not be sold in a given auction. Reserve prices can be either published or unpublished. A minimum opening bid, on the other hand, is the minimum bid price set at the beginning of the auction below which *no bids* are accepted. It is generally used to accelerate the competitive bidding process. Also, in a minimum opening bid scenario, the auctioneer generally has the discretion to lower the amount later in the auction.

The Bureau recently announced the auction of 908 licenses for the Phase II 220 MHz Service which is scheduled to begin May 19, 1998.⁴ These licenses encompass the United States, the Northern Mariana Islands, Guam, American Samoa, the United States Virgin Islands and Puerto Rico. Specifically, the licenses include: (1) five licenses in each of 175 geographic areas known as Economic Areas (EAs); (2) five licenses in each of six Regional Economic Area Groupings (REAGs), which we will refer to as "Economic Area Groupings" (EAGs);⁵ and (3) three nationwide licenses which encompass the same territory as all of the EAGs, combined.⁶

In anticipation of this auction and in light of the Balanced Budget Act, the Bureau proposes to establish minimum opening bids for the 220 MHz auction, and retain discretion to lower the minimum opening bids.

The Bureau believes a minimum opening bid, which has been utilized in other auctions,⁷ is an effective bidding tool, and we propose to use this approach in the 220 MHz Service auction. A minimum opening bid will help to regulate the pace of the auction and provides flexibility.

Specifically, the Commission proposes the following formula for calculating minimum opening

³ *Id.*

⁴ See *Public Notice*, "FCC Announces Spectrum Auction Schedule for 1998," DA 97-2497 (rel. November 25, 1997).

⁵ We note that the geographic area encompassed within a 220 MHz REAG differs from the geographic area encompassed within REAGs in prior auctions. In order to avoid confusion, therefore, we will use EAGs in the 220 MHz auction.

⁶ See 47 C.F.R. § 90.717(a) (nationwide channel assignments); 47 C.F.R. §§ 90.721(b) and 90.761 (Phase II EA and REAG channel assignments).

⁷ See *In the Matter of Auction of 800 MHz SMR Upper 10 MHz Band, Minimum Opening Bids or Reserve Prices*, DA 97-2147, *Order* (rel. October 6, 1997); *In the Matter of Revision of Rules and Policies for the Direct Broadcast Satellite Service*, IB Docket No. 95-168, PP Docket No. 93-253, *Report and Order*, 11 FCC Rcd 9712, 9787-9788, ¶ 186 (1995).

bids in Auction No. 18:

- | | |
|------------------------|------------------|
| 1. Nationwide Licenses | \$0.02 MHz/POP |
| 2. EAG Licenses | \$0.015 MHz/POP |
| 3. EA Licenses | \$0.0175 MHz/POP |

with a minimum of no less than \$2500.00 per license.

Comment is sought on this proposal.⁸ If commenters believe that the formula proposed above for minimum opening bids will result in substantial numbers of unsold licenses, or is not a reasonable amount, or should instead operate as a reserve price, they should explain why this is so, and comment on the desirability of an alternative approach. Commenters are advised to support their claims with valuation analyses and suggested reserve prices or minimum opening bid levels or formulas. In establishing the formula for minimum opening bids, we particularly seek comment on such factors as, among other things, the amount of spectrum being auctioned, levels of incumbency, the availability of technology to provide service, the size of the geographic service areas, issues of interference with other spectrum bands and any other relevant factors that could reasonably have an impact on valuation of the Phase II 220 MHz spectrum. Alternatively, comment is sought on whether, consistent with the Balanced Budget Act, the public interest would be served by having no minimum opening bid or reserve price.

II. Other Auction Procedural Issues

The Balanced Budget Act of 1997 requires the Commission to "ensure that, in the scheduling of any competitive bidding under this subsection, an adequate period is allowed . . . before issuance of bidding rules, to permit notice and comment on proposed auction procedures"⁹ Consistent with the provisions of the Balanced Budget Act and to ensure that potential bidders have adequate time to familiarize themselves with the specific provisions that will govern the day-to-day conduct of an auction, the Commission directed the Bureau, under its existing delegated authority, to seek comment on a variety of auction-specific issues prior to the start of each auction.¹⁰ We therefore seek comment on the following issues.

a. License Groupings

⁸ We note that we have received a proposal from SEA, Inc. to establish a minimum opening bid for the 220 MHz auction. This document has been made a part of the record in this proceeding and is attached hereto as Appendix A.

⁹ Budget Act, § 3002(a)(E)(i).

¹⁰ *Part I Third Report and Order* at ¶ 124. The Commission directed the Bureau to seek comment on specific mechanisms related to day-to-day auction conduct including, for example, the structure of bidding rounds and stages, establishment of minimum opening bids or reserve prices, minimum accepted bids, initial maximum eligibility for each bidder, activity requirements for each stage of the auction, activity rule waivers, criteria for determining reductions in eligibility, information regarding bid withdrawal and bid removal, stopping rules, and information relating to auction delay, suspension or cancellation. *Id.* at 125.

In the *220 MHz Third Report and Order* the Commission concluded that it would auction the 908 Phase II 220 MHz licenses in a single, simultaneous multiple-round auction. However, the Commission reserved the discretion, which it ultimately delegated to the Bureau, to auction each of the license types (*i.e.*, nationwide, EAG, EA) separately or in different combinations (*e.g.*, nationwide and EAG together).¹¹ For reasons of administrative efficiency, we propose to award the 908 licenses in the Phase II 220 MHz Service in a single, simultaneous multiple-round auction. We seek comment on this proposal.

b. Structure of Bidding Rounds, Activity Requirements, and Criteria for Determining Reductions in Eligibility

We propose to divide the auction into three stages: Stage One, Stage Two and Stage Three. The auction will start in Stage One. We propose that the auction will advance to the next stage (*i.e.*, from Stage One to Stage Two, and from Stage Two to Stage Three) when in each of three consecutive rounds of bidding, the high bid has increased on 10 percent or less of the licenses being auctioned (as measured in bidding units). However, we further propose that the Bureau retain the discretion to accelerate the auction by announcement. This determination will be based on a variety of measures of bidder activity including, but not limited to, the auction activity level, the percentages of licenses (as measured in bidding units) on which there are new bids, the number of new bids, and the percentage increase in revenue. We seek comment on these proposals.

In order to ensure that the auction closes within a reasonable period of time, an activity rule requires bidders to bid actively on a percentage of their maximum eligibility during each round of the auction rather than waiting until the end to participate. A bidder that does not satisfy the activity rule will either lose bidding eligibility in the next round or use an activity rule waiver.

For the Phase II 220 MHz Service auction, we propose that, in each round of the first stage of the auction, a bidder desiring to maintain its current eligibility is required to be active on licenses encompassing at least 80 percent of its current bidding eligibility. Failure to maintain the requisite activity level will result in a reduction in the bidder's bidding eligibility in the next round of bidding (unless an activity rule waiver is used). During Stage One, reduced eligibility for the next round will be calculated by multiplying the current round activity by five-fourths (5/4). In each round of the second stage of the auction, a bidder desiring to maintain its current eligibility is required to be active on at least 90 percent of its current bidding eligibility. During Stage Two, reduced eligibility for the next round will be calculated by multiplying the current round activity by ten-ninths (10/9). In each round of the third

¹¹ See In the Matter of Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, PR Docket No. 89-552, RM 8506, GN Docket No. 93-252, PP Docket No. 93-253, *Third Report and Order and Fifth Notice of Proposed Rulemaking*, 12 FCC Rcd 10943, 11046, ¶ 221 (1997) ("220 MHz Third Report and Order").

stage, a bidder desiring to maintain its current eligibility is required to be active on 98 percent of its current bidding eligibility. In this final stage, reduced eligibility for the next round will be calculated by multiplying the current round activity by fifty-fortyninths (50/49). We seek comment on these proposals.

c. Minimum Accepted Bids

Once there is a standing high bid on a license, a bid increment will be applied to that license to establish a minimum acceptable bid for the following round. For the Phase II 220 MHz Service auction, we propose, as described immediately below, to use an exponential smoothing methodology to calculate minimum bid increments. The Bureau retains the discretion to change the minimum bid increment if it determines that circumstances so dictate. The exponential smoothing methodology has been used in previous auctions, including the WCS auction and the 800 MHz SMR auction. We seek comment on this proposal.

Exponential Smoothing

The exponential smoothing formula calculates the bid increment based on a weighted average of the activity received on each license in the current and all previous rounds. This methodology will tailor the bid increment for each license based on activity, rather than setting a global increment for all licenses. For every license that receives a bid, the bid increment for the next round for that license will be established as the greater of \$0.25 per bidding unit for each license or a percentage increment that is determined using the exponential smoothing formula.

Using exponential smoothing, the calculation of the percentage bid increment for each license will be based on an activity index, which is calculated as the weighted average of the current activity and the activity index from the previous round. The activity index at the start of the auction (round 0) will be set at 0. The current activity index is equal to a weighting factor times the number of new bids received on the license in the current bidding period plus one minus the weighting factor times the activity index from the previous round. The activity index is then used to calculate a percentage increment by multiplying a minimum percentage increment by one plus the activity index with that result being subject to a maximum percentage increment. The Commission will initially set the weighting factor at 0.5, the minimum percentage increment at 0.05, and the maximum percentage increment at 0.15.

Equations

$$A_i = (C * B_i) + ((1-C) * A_{i-1})$$
$$I_i = \text{smaller of } ((1 + A_i) * N) \text{ and } M$$

where,

A_i = activity index for the current round (round i)

C = activity weight factor

B_i = number of bids in the current round (round i)
 A_{i-1} = activity index from previous round (round i-1), A_0 is 0
 I_i = percentage bid increment for the current round (round i)
 N = minimum percentage increment
 M = maximum percentage increment

Under the exponential smoothing methodology, once a bid has been received on a license, the minimum acceptable bid for that license in the following round will be the new high bid plus the greater of either the dollar amount associated with the percentage increment (variable I from above times the high bid) or the absolute increment (a fixed dollar amount per bidding unit for each license, *e.g.*, \$0.25 per bidding unit).

Example

License 1 (800,000 bidding units)
 $C=0.5$, $N = 0.05$, $M = 0.15$, Absolute bid increment = \$0.25 per bidding unit

Round 1 (2 new bids, high bid = \$1,000,000)

1. Calculation of percentage increment using exponential smoothing:

$$A_1 = (0.5 * 2) + (0.5 * 0) = 1$$

$$I_1 = (1 + 1) * 0.05 = 0.1$$

2. Dollar increment using the percentage increment (I_1 from above)

$$0.1 * \$1,000,000 = \$100,000$$

3. Dollar increment using the absolute increment

$$\$0.25 * 800,000 \text{ bidding units} = \$200,000$$

4. Minimum bid increment: greater of percentage and absolute = \$200,000

Round 2 (3 new bids, high bid = 2,000,000)

1. Calculation of percentage increment using exponential smoothing:

$$A_2 = (0.5 * 3) + (0.5 * 1) = 2$$

$$I_2 = (1 + 2) * 0.05 = 0.15$$

2. Dollar increment using the percentage increment (I_2 from above)

$$0.15 * \$2,000,000 = \$300,000$$

3. Dollar increment using the absolute increment

$$\$0.25 * 800,000 \text{ bidding units} = \$200,000$$

4. Minimum bid increment: greater of percentage and absolute = \$300,000

Round 3 (1 new bid, high bid = 2,300,000)

1. Calculation of percentage increment using exponential smoothing:

$$A_3 = (0.5 * 1) + (0.5 * 2) = 1.5$$

$$I_3 = (1 + 1.5) * 0.05 = 0.125$$

2. Dollar increment using the percentage increment (I_3 from above)

$$0.125 * \$2,300,000 = \$287,500$$

3. Dollar increment using the absolute increment

$$\$0.25 \times 800,000 \text{ bidding units} = \$200,000$$

4. Minimum bid increment: greater of percentage and absolute = \$287,500

d. Initial Maximum Eligibility for Each Bidder

In the *220 MHz Third Report and Order*, the Commission delegated to the Bureau the authority and discretion to determine an appropriate upfront payment for each license being auctioned, taking into account such factors as the population in each geographic license area, and the value of similar spectrum. The Commission noted that the Bureau should establish an upfront payment amount that would roughly equate with a five percent value for the license.¹² With these guidelines in mind, we propose, for the Phase II 220 MHz Service auction, an upfront payment of one cent per MHz-pop with no amount less than \$2,500. Our proposal will utilize the data in Attachment A to this Public Notice. We seek comment on this proposal.

For the Phase II 220 MHz Service auction, we further propose that the amount of the upfront payment submitted by a bidder will determine the initial maximum eligibility (as measured in bidding units) for each bidder. Upfront payments are not attributed to specific licenses, but instead will be translated into bidding units to define a bidder's initial maximum eligibility. The total upfront payment defines the maximum amount of bidding units on which the applicant will initially be permitted to bid. We seek comment on this proposal.

e. Activity Rule Waivers and Reducing Eligibility

Use of an activity rule waiver preserves the bidder's current bidding eligibility despite the bidder's activity in the current round being below the required minimum level. An activity rule waiver applies to an entire round of bidding and not to a particular license. Activity waivers are principally a mechanism for auction participants to avoid the loss of auction eligibility in the event that exigent circumstances prevent them from placing a bid in a particular round.

The FCC auction system assumes that bidders with insufficient activity would prefer to use an

¹² *220 MHz Third Report and Order*, 12 FCC Rcd at 11055-11056, ¶ 255.

activity rule waiver (if available) rather than lose bidding eligibility. Therefore, the system will automatically apply a waiver (known as an "automatic waiver") at the end of any bidding period where a bidder's activity level is below the minimum required unless: (1) there are no activity rule waivers available; or (2) the bidder overrides the automatic application of a waiver by reducing eligibility thereby meeting the minimum requirements.

A bidder with insufficient activity that wants to reduce its bidding eligibility rather than use an activity rule waiver must affirmatively override the automatic waiver mechanism during the bidding period by using the reduce eligibility function in the software. In this case, the bidder's eligibility is permanently reduced to bring the bidder into compliance with the activity rules as described above. Once eligibility has been reduced, a bidder will not be permitted to regain its lost bidding eligibility.

A bidder may proactively use an activity rule waiver as a means to keep the auction open without placing a bid. If a bidder submits a proactive waiver (using the proactive waiver function in the bidding software) during a bidding period in which no bids are submitted, the auction will remain open and the bidder's eligibility will be preserved. An automatic waiver invoked in a round in which there are no new valid bids will not keep the auction open.

We propose that each bidder in the Phase II 220 MHz Service auction will be provided five activity rule waivers that may be used in any round during the course of the auction. We seek comment on this proposal.

f. Information Regarding Bid Withdrawal and Bid Removal

For the Phase II 220 MHz Service auction, we propose the following bid removal and bid withdrawal procedures. Before the close of a bidding period, a bidder has the option of removing any bids placed in that round. By using the remove bid function in the software, a bidder may effectively "unsubmit" any bid placed within that round. A bidder removing a bid placed in the same round is not subject to withdrawal payments.

Once a round closes, a bidder may no longer remove a bid. However, in the next round, a bidder may withdraw standing high bids from previous rounds using the withdraw bid function. A high bidder that withdraws its standing high bid from a previous round is subject to the bid withdrawal payment provisions.¹³ We seek comment on these bid removal and bid withdrawal procedures.

In the *220 MHz Third Report and Order*, the Commission adopted the bid withdrawal provisions found in Part 1 of the Commission's Rules for the Phase II 220 MHz auction.¹⁴ In the *Part 1 Third Report and Order*, the Commission recently explained that allowing bid withdrawals

¹³ See 47 C.F.R. §§ 90.1007; 1.2104(g); 1.2109.

¹⁴ *220 MHz Third Report and Order*, 12 FCC Rcd at 11057, ¶ 263.

facilitates efficient aggregation of licenses and pursuit of efficient backup strategies as information becomes available during the course of an auction. The Commission noted, however, that in some instances bidders may seek to withdraw bids for improper reasons, including to delay the close of the auction for strategic purposes. The Bureau, therefore, has discretion, in managing the auction, to limit the number of withdrawals to prevent strategic delay of the close of the auction or other abuses. The Commission stated that the Bureau should assertively exercise its discretion, consider limiting the number of rounds in which bidders may withdraw bids, and prevent bidders from bidding on a particular market if the Bureau finds that a bidder is abusing the Commission's bid withdrawal procedures.¹⁵

Applying this reasoning, we propose to limit each bidder in the Phase II 220 MHz Service auction to withdrawals in no more than two rounds during the course of the auction. To permit a bidder to withdraw bids in more than two rounds would likely encourage insincere bidding or the use of withdrawals for anti-competitive strategic purposes. The two rounds in which withdrawals are utilized will be at the bidder's discretion; withdrawals otherwise must be in accordance with the Commission's Rules. There is no limit on the number of bids that may be removed in either of the rounds in which withdrawals are utilized. Withdrawals will remain subject to the bid withdrawal payment provisions specified in the Commission's Rules. We seek comment on this proposal.

g. Stopping Rules

In the *220 MHz Third Report and Order*, the Commission adopted a simultaneous stopping rule for the Phase II 220 MHz Service auction. The Commission noted that experience in prior auctions demonstrated that the simultaneous stopping rule balanced the interests of administrative efficiency and maximum bidder participation. The Commission concluded that the substitutability between and among licenses in different geographic areas and the importance of preserving bidders' ability to pursue backup strategies support the use of a simultaneous stopping rule.¹⁶ The Bureau has discretion to "establish stopping rules before or during an auction in order to terminate the auction within a reasonable time."¹⁷ We therefore have the discretion to adopt an alternative stopping rule to the simultaneous stopping rule if we deem appropriate. Thus, unless circumstances dictate otherwise, bidding would remain open on all licenses until bidding stops on every license. The auction would close for all licenses when one round passes during which no bidder submits a new acceptable bid on any license, applies a proactive waiver, or withdraws a previous high bid.

¹⁵ *Part 1 Third Report and Order* at ¶ 150. We note that the *Part 1 Third Report and Order* for the most part expressly does not apply to the auction of licenses for the 220 MHz Service. *Id.* at ¶ 7. However, as we previously stated, the *220 MHz Third Report and Order* invokes the Part 1 provisions in establishing its withdrawal rules. We therefore follow the reasoning of the Commission in the *Part 1 Third Report and Order* with respect to withdrawals in our analysis of this issue.

¹⁶ *See 220 MHz Third Report and Order*, 12 FCC Rcd at 11048, ¶ 228.

¹⁷ *See* 47 C.F.R. 90.1005(d).

We propose that the Bureau retain the discretion to keep an auction open even if no new acceptable bids or proactive waivers are submitted and no previous high bids are withdrawn. In this event, the effect will be the same as if a bidder had submitted a proactive waiver. The activity rule, therefore, will apply as usual and a bidder with insufficient activity will either lose bidding eligibility or use a remaining activity rule waiver.

Finally, we propose that the Bureau reserve the right to declare that the auction will end after a specified number of additional rounds ("special stopping rule"). If the Bureau invokes this special stopping rule, it will accept bids in the final round(s) only for licenses on which the high bid increased in at least one of the preceding specified number of rounds. The Bureau proposes to exercise this option only in circumstances such as where the auction is proceeding very slowly, where there is minimal overall bidding activity, or where it appears likely that the auction will not close within a reasonable period of time. Before exercising this option, the Bureau is likely to attempt to increase the pace of the auction by, for example, moving the auction into the next stage (where bidders would be required to maintain a higher level of bidding activity), increasing the number of bidding rounds per day, and/or increasing the amount of the minimum bid increments for the limited number of licenses where there is still a high level of bidding activity. We seek comment on these proposals.

h. Information Relating to Auction Delay, Suspension or Cancellation

For the Phase II 220 MHz Service auction, we propose that, by public notice or by announcement during the auction, the Bureau may delay, suspend or cancel the auction in the event of natural disaster, technical obstacle, evidence of an auction security breach, unlawful bidding activity, administrative or weather necessity, or for any other reason that affects the fair and competitive conduct of competitive bidding. In such cases, the Bureau, in its sole discretion, may elect to: resume the auction starting from the beginning of the current round; resume the auction starting from some previous round; or cancel the auction in its entirety. Network interruption may cause the Bureau to delay or suspend the auction. We emphasize that exercise of this authority is solely within the discretion of the Bureau, and its use is not intended to be a substitute for situations in which bidders may wish to apply their activity rule waivers. We seek comment on this proposal.

III. Conclusion

Comments are due on or before January 29, 1998, and reply comments are due on or before February 5, 1998. To file formally, parties must submit an original and four copies to the Office of the Secretary, Federal Communications Commission, Room 222, 1919 M Street N.W., Washington, DC 20554. In addition, parties must submit one copy to Kathleen O'Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, Room 5202, 2025 M Street N.W., Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the FCC Public Reference Room, Room 239, 1919 M Street N.W., Washington, D.C. 20554.

For further information concerning this proceeding, contact Lisa Hartigan, Bob Reagle, or Frank Stilwell, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, at (202) 418-0660.

- FCC -