

Summary of Competitive Bidding Procedures for Auctions 101 (28 GHz) and 102 (24 GHz)

August 6, 2018

The Federal Communications Commission (FCC) released a Public Notice that establishes the application and bidding procedures for auctioning 5,986 Upper Microwave Flexible Use Service (UMFUS) licenses in the 27.5-28.35 GHz (28 GHz) and 24.25-24.45 and 24.75-25.25 GHz (24 GHz) bands (collectively, the UMFUS bands). The FCC will hold separate auctions for the 28 GHz and 24 GHz bands with separate, but concurrent, filing windows and quiet periods. The 28 GHz band auction, designated as Auction 101, will begin November 14, 2018. The 24 GHz band auction, designated as Auction 102, will begin after the conclusion of bidding in Auction 101.

Licenses to be Offered in Auctions 101 and 102

UMFUS spectrum made available through Auctions 101 and 102 will be licensed on an unpaired basis and by geographic area. (¶¶ 6, 8).

Auction 101

The FCC will auction 3,072 county-based licenses in the 28 GHz band. The spectrum will be licensed as two 425 megahertz blocks: 27.500-27.925 GHz and 27.925-28.350 GHz. (¶ 6). A complete list of offered licenses can be found here.

Auction 102

The FCC will auction 2,912 PEA-based licenses in the 24 GHz band. The 24.25-24.45 GHz band will be licensed as two 100 megahertz blocks, and the 24.75-25.25 GHz band will be licensed as five 100 megahertz blocks. (¶ 7). A complete list of offered licenses can be found here.

Authors

Scott D. Delacourt
Partner
202.719.7459
sdelacourt@wiley.law

Ari Meltzer
Partner
202.719.7467
ameltzer@wiley.law

Madeleine M. Lottenbach
Associate
202.719.4193
mlottenbach@wiley.law

Practice Areas

Telecom, Media & Technology

Auction Specifics

The FCC will auction separately the 28 GHz and 24 GHz band licenses. The agency will begin bidding in Auction 101 on November 14, 2018. (¶ 22). Bidding in Auction 102 will begin after the close of bidding in Auction 101. (¶ 15).

The agency will use separate application and bidding procedures for Auctions 101 and 102. Specifically, the FCC will use the standard Specialized Mobile Radio (SMR) service auction format for Auction 101, and a clock auction format (like that used in the forward auction portion of the Broadcast Incentive Auction) for Auction 102. (¶ 16).

The FCC will accept applications to participate in Auction 101 and/or 102 during separate, concurrent filing windows, which will be due on September 18. (¶¶ 17, 24-25, 27, 29, 137-138).

The following dates and deadlines apply to Auction 101:

Auction Application Tutorial Available (via Internet) August 28, 2018

Short-Form Application Filing Window Opens September 5, 2018; 12:00 p.m. ET

Short-Form Application Filing Window Deadline September 18, 2018; 6:00 p.m. ET

Upfront Payments (via wire transfer) October 23, 2018; 6:00 p.m. ET

Bidding Tutorial Available (via Internet) No later than November 1, 2018

Mock Auction November 8, 2018

Bidding Begins in Auction 101 November 14, 2018

The following dates and deadlines apply to Auction 102:

Auction Application Tutorial Available (via Internet) August 28, 2018

Short-Form Application Filing Window Opens September 5, 2018; 12:00 p.m. ET

Short-Form Application Filing Window Deadline September 18, 2018; 6:00 p.m. ET

The FCC will release an additional Public Notice with the remaining Auction 102 dates, including the bidding tutorial, upfront payment deadline, date of the clock and assignment phase mock auction, and when bidding will begin in the clock phase.

Applying to Participate in Auctions 101 And 102

A. Short-Form Applications

A party seeking to participate in Auction 101 and/or Auction 102 must file a separate FCC Form 175 electronically for each auction in which it wishes to participate via the Auction Application System by 6:00 p.m. ET on September 18, 2018. (¶ 29). A party may not submit more than one short-form application for Auction 101 or for Auction 102. (¶ 33). A party is generally permitted to participate in a Commission auction only through a single bidding entity. (¶ 34).

If an applicant fails to make the required certifications in its FCC Form 175 by the filing deadline, its application will be deemed unacceptable for filing and cannot be corrected after the filing deadline. (¶ 30). Requests for confidential treatment will not be routinely granted. (¶ 32).

The FCC will issue a public notice announcing the status of applications for each auction and identifying the applications that are complete and those that are incomplete because of minor defects that may be corrected. The public notice will establish an application resubmission filing window. Qualified bidders for each auction will be identified by public notice at least 10 days prior to the respective mock auction. (¶ 35).

B. Authorized Bidders

An applicant must designate at least one individual as an authorized bidder, and no more than three, in its FCC Form 175. An individual may not serve as an authorized bidder for more than one auction applicant. (¶ 37).

C. License or License Area Selection

An applicant must select all the licenses (Auction 101) or license areas (Auction 102) on which it may want to bid from the list of available licenses or PEAs on its FCC Form 175 for the appropriate auction. The auction system will not accept bids on licenses or generic blocks in PEAs that were not selected on the applicant's FCC Form 175. (¶ 38).

D. Disclosure of Agreements and Bidding Arrangements

An applicant must provide in its FCC Form 175 a brief description of any partnerships, joint ventures, consortia or agreements, arrangements, or understandings of any kind relating to the licenses being auctioned, including any agreements that address directly or indirectly bids, bidding strategies, or the post-auction market structure, to which the applicant is a party. (¶ 39).

Part 1 of the FCC's rules generally prohibit joint bidding and similar bidding arrangements by two or more nationwide providers, or one nationwide and one or more non-nationwide providers, where any party is an applicant for the auction. (¶ 42). For purposes of implementing these rules in Auctions 101 and 102, the Commission identifies AT&T, Sprint, T-Mobile, and Verizon Wireless as "nationwide providers." (¶ 44). The rule applies to applicants for Auction 101 or Auction 102. (Id.).

A winning bidder will be required to disclose in its FCC Form 601 post-auction application the specific terms, conditions, and parties involved in any agreement relating to the licenses being auctioned into which it had entered prior to the time bidding was completed. (¶¶ 46, 81).

E. Ownership Disclosure Requirements

In completing FCC Form 175, an applicant must fully disclose information regarding the real party- or parties-in-interest in the applicant or application and the ownership structure of the applicant, including both direct and indirect ownership interests of 10 percent or more. (¶ 47).

F. Foreign Ownership Disclosure Requirements

In completing the FCC Form 175, an applicant must disclose information concerning foreign ownership of the applicant. An applicant must certify in its FCC Form 175 that it either is in compliance with the foreign ownership provisions of 47 U.S.C. Section 310 or has filed a petition for declaratory ruling requesting Commission approval to exceed the applicable foreign ownership limit in Section 310(b). (¶ 49).

G. Information Procedures During the Auction Process

To conceal bidder identities, the Commission will withhold the following information until after bidding has closed: (i) the licenses or license areas that an applicant selects for bidding in its auction application (FCC Form 175); (ii) the amount of any upfront payment made by or on behalf of an applicant for Auction 101 or 102; (iii) any applicant's bidding eligibility, and (iv) any other bidding-related information that might reveal the identity of the bidder placing a bid. (¶ 50).

After each round of bidding in Auction 101, the FCC will disclose the number of bidders that placed a bid on each license, the amount of every bid placed, whether a bid was withdrawn, the minimum acceptable bid amount for the next round, and whether the license has a provisionally winning bid. In addition, the Auction System will indicate whether any proactive waivers were submitted in each round and the stage transition percentage for the round. After the last round in Auction 101, the FCC will make public the gross winning bid amount for each license. (¶ 52). In Auction 102, the Commission will disclose the supply, aggregate demand, price of the last completed round, and price for the next round for each category of license in each geographic area. (Id.).

The Commission will withhold bidder identification information and the results of each auction until after bidding has closed in both auctions. (¶ 53). Bidders will be able to view their eligibility status before and during the auction via the FCC's Auction Bidding System. (¶ 55).

H. Prohibited Communications and Compliance with Antitrust Laws

Section 1.2105(c)(1) of the FCC's rules prohibits applicants from discussing bids or bidding strategies or negotiating settlement agreements between the short-form application filing deadline and the down payment deadline. The rules will apply to an applicant in either Auction 101 or 102 from communicating bids or bidding strategies to any applicant in either auction. The prohibition applies until the down payment deadline

for Auction 102. (¶¶ 57 - 60).

Applicants may discuss the short-form applications or bids for specific licenses with their counsel or consultant before the short form application deadline. That same counsel or consultant could continue to give advice after the deadline, provided that no information pertaining to bids or bidding strategies is conveyed. (¶ 74).

I. Provisions for Small Businesses and Rural Service Providers

The FCC adopted a \$25 million bidding credit cap in each auction for eligible small businesses, and a \$10 million cap in each auction for eligible rural service providers. To create parity among eligible small businesses and rural service providers competing in smaller markets, the FCC adopted a \$10 million cap on the overall amount of bidding credits that any winning small business bidder may apply to winning licenses in markets with a population of 500,000 or less. (¶ 93).

J. Modifications to FCC Form 175

After the initial 175 filing deadline, an applicant will be permitted to make only minor changes to its application. (¶ 112).

Preparing for Bidding in Auctions 101 and 102

A. Licensing Considerations

Incumbency and Sharing Issues

Parties interested in participating in either auction should consider their obligation to share spectrum with existing operators upon receiving a UMFUS license. Incumbents continue to operate in 1,696 full counties and one partial county in the 28 GHz band, and in 9 PEAs in the 24 GHz band. Obligations to enable shared use between UMFUS licensees and incumbent licensees are described in the FCC's *2016 Spectrum Frontiers Order*, *2017 Spectrum Frontiers Order*, and *2018 Spectrum Frontiers Order*. (¶¶ 126-127).

International Coordination

The use of some or all of the upper microwave frequencies in Auction 101 and/or Auction 102 are subject to international agreements with Canada and Mexico. (¶ 129).

Quiet Zones

Upper microwave licensees must individually apply for and receive a separate license for each transmitter if the proposed operation would affect the radio quiet zones set forth in the Commission's rules. (¶ 130).

Mobile Spectrum Holdings Policies

For purposes of reviewing proposed secondary market transactions, the Commission adopted a threshold of 1850 megahertz of combined mmW spectrum in the 24 GHz, 28 GHz, 37 GHz, 39 GHz, and 47 GHz bands. The Commission will review applications for initial licenses filed post-auction on a case-by-case basis using the same 1850 megahertz threshold it uses for reviewing applications for secondary market transactions. (¶ 132).

B. Upfront Payments

An applicant must make an upfront payment sufficient to obtain bidding eligibility on the licenses on which it will bid. The deadline for submitting an upfront payment and FCC Form 159 for Auction 101 is October 23, 2018. For auction 102, the Bureau will announce the deadline and procedures for submission of upfront payments after the bidding in Auction 101 concludes. (¶ 145).

The Commission adopted a tiered approach under which upfront payments will vary by market population:

- for county-based licenses and generic blocks that fall within PEAs 1-50, upfront payments are based on \$0.001 per MHz/pop;
- for licenses and generic blocks in PEAs 51-100, upfront payments are based on \$0.0002 per MHz/pop; and
- for all other licenses and generic blocks, upfront payments are based on \$0.0001 per MHz/pop. (¶ 154-156).

The Commission will assign one bidding unit per \$10 dollars of upfront payment. The number of bidding units for a given license is fixed and will not change during the auction as prices change. (¶ 157).

Bidding in Auctions 101 AND 102

A. Auction 101 – 28 GHz

Auction Structure

The FCC adopted the standard SMR auction format for Auction 101. Under this format, all licenses are available for bid simultaneously, and the auction remains open until bidding has stopped on every license. (¶ 169).

Bids may be placed online using the FCC's auction bidding system or by telephone through a dedicated auction bidder line. (¶ 170). In each round, eligible bidders will be able to place bids on a given license in any of up to nine pre-defined bid amounts. (¶ 173).

The FCC will have sequential bidding rounds, releasing results at the end of each round. The initial bidding schedule and information on viewing round results will be made available by public notice. (¶ 178).

The Wireless Telecommunications Bureau (WTB or Bureau) retains discretion to change the bidding schedule—including the amount of time for bidding rounds, the amount of time between rounds, and the number of rounds per day—depending upon bidding activity and other factors. (¶ 179).

Eligibility and Activity Rule

A bidder's maximum bidding eligibility (as measured in bidding units) for Auction 101 will be based on its upfront payment. Bidding units assigned to each license do not change as prices rise during the auction. Eligibility cannot be increased during the auction; it can only remain the same or decrease. (¶ 180).

The FCC adopted activity requirements to ensure that the auction closes within a reasonable period. Bidders will be required to actively bid on a certain percentage of their current bidding eligibility during each round of the auction. Failure to maintain the requisite activity level will result in the use of an activity rule waiver or a reduction in bidding eligibility for the next round. (¶ 181).

Specifically, in Stage One, the FCC will require bidders to actively bid on at least 80% of their current bidding eligibility. In Stage Two, the FCC will require bidders to actively bid on 95% of their current bidding eligibility. (¶ 181).

Auction Stages

The FCC will conduct Auction 101 in two stages. (¶ 182).

- **Stage One:** To maintain its current bidding eligibility, a bidder must be active on bidding units associated with licenses representing at least 80 percent of its current bidding eligibility. Failure to maintain the required activity level will result in the use of an activity rule waiver or a reduction in the bidder's bidding eligibility for the next round of bidding. A bidder's reduced eligibility for the next round will be calculated by multiplying the bidder's current round activity by five-fourths (5/4). (¶ 183).
- **Stage Two:** To maintain its current bidding eligibility, a bidder must be active on 95 percent of its current bidding eligibility. Failure to maintain the required activity level will result in the use of an activity rule waiver or a reduction in the bidder's bidding eligibility for the next round of bidding. A bidder's reduced eligibility for the next round will be calculated by multiplying the bidder's current round activity by twenty-nineteenths (20/19). (¶ 184).

The WTB will have discretion to further alter the activity requirements before and/or during the auction as circumstances warrant. (¶ 186).

Activity Rule Waivers

When a bidder's activity is below the required threshold, the Commission will allow bidders to preserve their current level of eligibility through an activity rule waiver. The FCC will provide each bidder three activity rule waivers. (¶ 187).

If a bidder has no waivers remaining and does not satisfy the required activity level, its current eligibility will be permanently reduced. (§ 188). A bidder with insufficient activity may voluntarily reduce its bidding eligibility rather than use an activity rule waiver. However, a bidder cannot regain its lost bidding eligibility once reduced. (189).

The FCC will allow bidders to proactively use their activity rule waivers to keep the auction open and preserve eligibility. An automatic waiver applied retroactively in a round in which there is no new bid or proactive waiver will not keep the auction open. (§ 190).

Stopping Rule

The Commission will employ a simultaneous stopping rule approach for Auction 101. Under this approach, bidding will close on all licenses after the first round in which no bidder submits any new bids, applies a proactive waiver, or withdraws any provisionally winning bids. (§ 191).

In addition, the WTB retains discretion to exercise any of the following stopping options:

1. The auction will close for all licenses after the first round in which no bidder applies a waiver, withdraws a provisionally winning bid, or places any new bid on a license for which it is not the provisionally winning bidder;
2. The auction will close for all licenses after the first round in which no bidder applies a waiver, withdraws a provisionally winning bid, or places any new bid on a license that already has a provisionally winning bid;
3. The auction will close using a modified version of the simultaneous stopping rule that combines Option 1 and Option 2 above;
4. The auction will close after a specified number of additional rounds to be announced by the WTB; or
5. The auction will remain open even if no bidder places any new bid, applies a waiver, or withdraws any provisionally winning bids. A bidder with insufficient activity will lose bidding eligibility or use a waiver. (§ 192).

The WTB will exercise these options only in certain circumstances, such as where the auction is proceeding at an unusual pace, there is minimal bidding activity, or it appears the auction will not close within a reasonable period or will close prematurely. (§ 193).

Auction Delay, Suspension, or Cancellation

The FCC provides the WTB authority to delay, suspend, or cancel bidding for any reason that affects the fair and efficient conduct of competitive bidding. The WTB will notify participants by public notice and/or through the FCC's Auction Bidding System. The Bureau will also have sole discretion to resume the auction starting from the beginning of the current round, the beginning of a previous round, or cancel the auction in its entirety. (§ 194).

Reserve Price or Minimum Opening Bids

Minimum opening bid amounts on a license-by-license basis will be calculated using a tiered approach:

- For the county-based licenses that fall within PEAs 1–50, minimum opening bid amounts will be based on \$0.002 per MHz/pop;
- for those in PEAs 51–100, minimum opening bid amounts will be based on \$0.0004 per MHz/pop; and
- for all others, minimum opening bid amounts will be based on \$0.0002 per MHz/pop.

Minimum opening bid amounts are listed in Attachment A. (¶ 197).

Bid Amounts

For each round, an eligible bidder will be able to place a bid on a given license in any of up to nine different amounts listed on the FCC's Auction Bidding System for each license. (¶ 198). This will include a minimum acceptable bid amount and additional bid amounts determined by various factors such as the bid activity from the prior round. (¶¶ 199-200). The WTB may change the minimum acceptable bid amounts, the additional bid amounts, the number of acceptable bid amounts, and the parameters of the formulas used to calculate bid amounts at its discretion and on a license-by-license basis. (¶ 202).

Provisionally Winning Bids

At the end of each round, the FCC's Auction Bidding System will determine a provisionally winning bid for each license. If identical high bid amounts are submitted, the system will randomly select one of the tied bids to be the provisionally winning bidder. A provisionally winning bid remains as such until there is a higher bid on the same license, the bid is withdrawn, or the auction closes, in which case the provisionally winning bid becomes the final winning bid. (¶¶ 203-205).

Bid Removal and Bid Withdrawal

The FCC will permit bid removals (removing the bid before the close of the round) and/or withdrawals (withdrawing a provisionally winning bid after the close of the round) in Auction 101. The FCC will permit both bid removal and bid withdrawal, but will limit bid withdrawal to no more than two rounds. Bid withdrawals would also be subject to a penalty. (¶¶ 206-212).

B. Auction 102 – 24 GHz

Auction Structure

The Commission will conduct an ascending clock auction approach for Auction 102. Under this approach, the first phase of the auction will consist of successive clock bidding rounds for generic license blocks in specific geographic areas, and the second phase will consist of bidding rounds for frequency-specific license assignments. (¶ 215).

For the clock phase, there will be (i) two blocks of spectrum between 24.25-24.45 GHz, and (ii) five blocks between 24.75-25.25 GHz. (§ 217). For some PEAs, the FCC will include two additional bidding categories for spectrum blocks with less than the full 100 megahertz due to the relocation of incumbent licensees. (§ 220).

Bids may be placed online using the FCC's auction bidding system or by telephone through a dedicated auction bidder line. (§ 222).

In the first round of the clock phase, an eligible bidder will indicate how many blocks in a bidding category in a PEA it demands at the minimum opening bid price. In each subsequent round, an eligible bidder will be able to express its demand for blocks in a category in a specific PEA at the clock price or at a price between the previous round's price and the new clock price. (§ 225). During each round of the clock phase, a bidder may also remove bids placed in the current bidding round. (§ 226).

Before bidding begins in the assignment phase, the auction bidding system will provide to each clock phase winner bidding options consisting of possible configurations of frequency-specific licenses on which it can bid in each category in each PEA in which it holds winning clock phase bids. Participation in the assignment phase is voluntary. (§ 227).

Stopping Rule

The Commission adopted a simultaneous stopping rule. Under this approach, bidding in the clock phase will end after the first round in which there is no excess demand in any category in any PEA. (§ 228).

Availability of Bidding Information

The FCC will make public after each round of the clock phase of Auction 102, for each bidding category in each PEA: the supply; the aggregate demand; the posted price of the last completed round; and the clock price for the next round. The identities of bidders demanding blocks in a specific category or PEA will not be disclosed until after Auction 102 concludes. (§ 230).

Before bidding begins in the assignment phase, the auction bidding system will provide to each assignment phase bidder possible configurations of frequency-specific licenses on which it can bid in each category in each PEA in which it holds winning clock-phase bids. The bidding system will also announce the order in which assignment rounds will take place and indicate which PEAs will be grouped together for bidding.

Auction Delay, Suspension, or Cancellation

The FCC provided the WTB authority to delay, suspend, or cancel bidding for any reason that affects the fair and efficient conduct of competitive bidding. The WTB will notify participants by public notice and/or through the FCC auction bidding system. The Bureau will also have sole discretion to resume the auction from the beginning of the current round, the beginning of a previous round, or cancel the auction in its entirety. (§ 235).

Clock Phase Bid Collection and Bid Processing Procedures

The Commission will conduct the clock phase of Auction 102 in a series of rounds, with bidding being conducted simultaneously for all spectrum blocks available in the auction. During the clock phase, the Bureau will announce clock prices for blocks in each category in each geographic area, and qualified bidders will submit quantity bids for the number of blocks they seek. (¶ 236). The clock rounds will continue until, for all categories of blocks in all geographic areas, the number of blocks demanded does not exceed the supply of available blocks. (¶ 237).

The initial bidding schedule and information on viewing round results will be made available by public notice. (¶ 238). The WTB retains the discretion to change the bidding schedule in order to foster an auction pace that reasonably balances speed with the bidders' need to study round results and adjust their bidding strategies. (*Id.*).

The WTB will have discretion to change the bidding schedule depending upon bidding activity and other factors. This would include discretion over the amount of time for bidding rounds or the number of rounds per day. (¶ 238).

Eligibility and Activity Rule

To maintain eligibility, bidders will be required to actively bid between 92 and 97 percent of their bidding eligibility in all regular clock rounds. If the activity rule is not met, the Commission will automatically reduce the bidder's eligibility. The initial activity requirement will be 95 percent. (¶ 239).

The Commission will not provide activity rule waivers for Auction 102, because the clock auction design depends upon identifying the point at which supply equals demand to determine winning bidders and final prices. (¶ 245).

Reserve Price or Minimum Opening Bids

The Commission adopted a tiered approach, under which minimum opening bid amounts will vary by market population:

- For PEAs 1–50, minimum opening bid amounts will be based on \$0.002 per MHz/pop;
- For PEAs 51–100, minimum opening bid amounts will be based on \$0.0004 per MHz/pop; and
- For all other PEAs, minimum opening bid amounts will be based on \$0.0002 per MHz/pop.

Minimum opening bid amounts are listed in Attachment A. (¶ 247).

Clock Price Increments

The FCC will announce the clock price for each round by adding a percentage increment to the posted price for the previous round. (¶ 248). The agency will incrementally increase the clock price for each subsequent round between 5% and 15%. The WTB may change the bid increase amounts on a PEA-by-PEA or category-by-

category basis based on bidding activity. (¶ 249).

The Commission will allow bidders to make intra-round bids in lieu of clock price bids. Bidders would select a price between the previous round's price and the new clock price and the quantity of blocks it demands if the price for blocks in the category should increase beyond that price. (¶ 250).

Bid Removal and Bid Withdrawal

The Commission will allow removal of a bid before the close of the round. Bid withdrawals are not available in Auction 102. (¶¶ 253-254).

No Bidding Aggregation

The Commission did not adopt any package bidding procedures, finding that applicants can express their preferences for specific frequency blocks in the license assignment phase. (¶ 255).

Changing Demand, Bid Types, and Bid Processing

The Commission will not allow bidders to reduce the quantity of blocks they demand if the reduction will result in aggregate demand falling below the available supply of blocks in the category. (¶ 257). The FCC will process bids in ascending order of price point (*i.e.*, the percentage of the bidding interval for the round) after each round. (¶ 258).

To facilitate bidding for multiple blocks in a PEA, the Commission will allow bidders to make simple bids (bids indicating the desired quantity of licenses in a category at either the clock price or an intra-round price) and switch bids (bids that apply interchangeably to L Category and U Category licenses within the same PEA). (¶ 260).

The FCC will stop increasing the clock price for a given category in a PEA when aggregate demand no longer exceeds the available supply. (¶ 259). When processing bids in order of ascending price point, the FCC will save unfulfilled or partially fulfilled bids in a queue to be considered later during bid processing for that round. The FCC's Auction Bidding System, however, will not carry over unfulfilled bid requests to the next round. (¶ 263-262).

Winning Bids in the Clock Phase

Bidders still expressing demand for blocks in a category in a PEA at the time the stopping rule is met will be deemed winning bidders. Winning bidders will be assigned specific frequencies in the assignment phase. (¶ 266).

Assignment Phase

The Commission's assignment phase will determine which frequency-specific licenses will be won by the winning bidders of generic blocks during the clock phase. The Commission makes the assignment phase voluntary and commits to assigning contiguous blocks of spectrum to bidders winning multiple blocks in a

category in a PEA, even without participating in the assignment phase. (¶ 268).

The Commission will sequence assignment rounds to help bidders winning multiple blocks of licenses to obtain contiguous blocks of spectrum across adjacent PEAs, starting with the top 40 PEAs. (¶¶ 270-271). The agency will then conduct a series of assignment rounds for each Regional Economic Area Grouping (REAG). (¶ 271).

In each assignment round, the bidder will assign a price to one or more preferred frequency assignments. This price will represent the maximum amount the bidder is willing to pay, in addition to the base price established in the clock phase for the generic blocks, for the frequency-specific licenses. (¶ 274).

The FCC will use an "optimization approach" to determine the winning frequency assignment for each category in each assignment round that maximizes the sum of bid amounts among all assignments that satisfy the contiguity requirements. (¶ 276).

Post-Auction Procedures

Down Payments

Within 10 business days after release of the auction closing public notices for Auctions 101 and 102, a winning bidder must submit funds to bring its total deposit to 20 percent of the net amount of its winning bids (gross bids less any applicable bidding credits). (¶ 284).

Final Payments

The balance for each winning bid for each auction will be due within 10 business days after the applicable deadline for submitting down payments. (¶ 285).

Additional Default Payment Percentage

The FCC will assess winning bidders that default or are disqualified after the close of the auction a penalty equal to (i) the difference between the amount of the bidder's winning bid and the amount of the winning bid in a subsequent auction, and (ii) 15% of the defaulter's bid or of the subsequent winning bid, whichever is less. (¶¶ 294-295).