Auction 110 Assignment Phase Bidding System User Guide

November 17, 2021

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1. Introduction

This guide describes the features of the web-based FCC auction bidding system that bidders will use to bid in the assignment phase of Auction 110. Additional information for this auction can be found on the FCC Auction 110 website: www.fcc.gov/auction/110.

Qualified applicants that have won generic spectrum blocks in the clock phase of the auction are permitted to access the bidding system in order to bid for specific frequency assignments in the assignment phase of the auction.

1.1. Conventions

In this guide, screen names are Capitalized. Internet addresses are highlighted in blue, links in the system are underlined, and the following text represents a Button.

Text boxes are used to indicate points where care is needed:

> ✍ *Care needed with this feature!*

In this guide, the term "bidder" refers to an applicant that was identified by the FCC as qualified to bid in Auction 110 and that won generic blocks in the clock phase. The terms "user," "you," and "authorized bidder" refer interchangeably to an individual authorized bidder identified on a qualified bidder's Form 175 as an individual authorized to access the bidding system and to submit bids on behalf of the qualified bidder.

Most of the examples are for "Reliable Access, Inc.", a bidder that does not have a bidding credit. Representative examples are also given for a bidder with a small business bidding credit and for a bidder with a rural service provider bidding credit.

1.2. Guide Structure

After this introduction, the guide is set out as follows:

- Section 2 provides an overview of the assignment phase.
- Section 3 describes the system requirements for accessing the system and how to log in.
- Section 4 explains how to navigate the system and provides a summary of the screens available to bidders.
- Section 5 describes how to view static information regarding the assignment rounds and the bidder's clock phase winnings.
- Section 6 covers the Schedule screen and the communications between the bidder and the FCC.

- Section 7 describes bidding in the assignment phase, including viewing the bidding options, placing bids via the user interface, and uploading bids.
- Section 8 describes how to verify bids submitted in a round.
- Section 9 describes how to access results of the assignment phase.

There are also four appendices:

- Appendix 1: System Troubleshooting – provides troubleshooting tips for a number of different scenarios.
- Appendix 2: RSA SecurID® Token Information – provides additional information about RSA SecurID® tokens.
- Appendix 3: Simultaneous Bidding on Behalf of the Same Bidder – provides information on what to expect if more than one user tries to submit a bid on behalf of a bidder at the same time.
- Appendix 4: Bid Upload Errors – provides a list of possible bid upload errors.

2. Overview of the Assignment Phase

In Auction 110, bidders will bid for flexible-use licenses in the 3.45-3.55 GHz band. The auction includes 406 PEAs. For each of the PEAs, 10 frequency blocks are available (A – J). For 331 PEAs, there is a single bidding category comprising all 10 frequency blocks. For 75 PEAs, there are two categories, Category 1 or "Cat1" and Category 2 or "Cat2", which are subject to different requirements. For 72 of these PEAs, Cat1 comprises four blocks (A through D) and Cat2 comprises six blocks (E through J). In the remaining three PEAs (PEAs 041, 044, and 227), Cat1 comprises eight blocks (A through H) and Cat2 comprises two blocks (I and J).

During the assignment phase of Auction 110, winners from the clock phase will be able to bid for frequency-specific license assignments corresponding to the number of generic blocks they won in the clock phase for a category and PEA. Bidding in the assignment phase is voluntary. All clock phase winners will be assigned contiguous licenses within each category in each PEA, regardless of their assignment phase bid amounts and of whether they bid in the assignment phase. In PEAs with both Cat1 and Cat2 blocks, if one or more bidders have won blocks in both categories in the clock phase, the assignment phase rules ensure that one of those bidders will be assigned licenses that are contiguous across the categories.

The assignment phase progresses through a sequence of assignment rounds. In each round, each clock phase winner of one or more blocks in a PEA will have the opportunity to bid for specific blocks in that PEA. If in the clock phase, all of the same bidders win the same number of blocks in more than one PEA, those PEAs will be grouped for bidding under certain conditions, and the same winning assignment will be made for all the PEAs in the group; a PEA group is also referred to as an assignment phase market. For PEAs 1–20, assignment rounds will be conducted separately for each PEA. Assignment rounds for other PEAs will be conducted simultaneously for one PEA or PEA group in each of the six defined REAGs.[1] A PEA will be "pre-assigned" if either the PEA has no winners from the clock phase (all 10 blocks remain FCC-held) or, in the case of a PEA with two categories, if all the available blocks in one category were won by a single bidder and all the blocks in the other category remain FCC-held.

Once the assignment phase bidding system becomes available, a bidder can download a file that contains all its bidding options for the PEAs in which it has clock phase winnings. A bidder's bidding options for a category in a PEA will consist of all the contiguous options that are consistent with the bidder's clock phase winnings. A bidder can specify a bid amount for each bidding option for which it wishes to express a preference by indicating the amount, in addition to the clock phase payment, that it is willing to pay for that option.

Once an assignment round closes, the bidding system will process the bids to determine the winning assignment and the assignment payment for each bidder. A bidder's assignment payment is in addition to the sum of the clock phase prices for the licenses. To determine the assignment for each category in

[1] The six Regional Economic Area Groupings (REAG) are Northeast, Southeast, Great Lakes, Mississippi Valley, Central, and West. For PEAs 1–20, the region is listed as "Top 20."

a PEA (or PEA group), the bidding system utilizes mathematical optimization. The objective of the optimization is to maximize the sum of bid amounts for the various options while ensuring that each bidder is assigned one of its bidding options, and that any unsold blocks are assigned contiguous frequencies. The system uses a "nearest Vickrey" approach to calculate a bidder's assignment payment. A bidder's Vickrey price is the lowest bid amount that would have resulted in the same winning assignment. The assignment payments may be higher than the Vickrey prices to ensure that no bidder or group of bidders is willing to pay more for an alternative feasible assignment. The bidder's final auction payment takes into account the final clock phase prices of the licenses it won and any assignment payments, and is adjusted for any bidding credit discounts.

In addition to their final auction payments, licensees in the new 3.45 GHz Service will reimburse the current 3.3–3.55 licensees for their reasonable costs related to the relocation of their operations to the 2.9–3.0 GHz band. For details, see the 3.45 GHz Second Report and Order at 58-59, paras. 160-65.

3. System Requirements and Access

For Sections 3.1 through 3.4, please refer to the Auction 110 Clock Phase Bidding System User Guide (available in the Education section of the Auction 110 website, www.fcc.gov/auction/110).

3.1. Minimum System Requirements

3.2. Logging In

3.2.1. First Time Login Procedures

3.2.2. Standard Login Procedure

3.2.3. Login Errors

3.3. Multiple Users for the Same Qualified Bidder

3.4. Automatic and Manual Logout

3.5. Auction Bidder Line

The Auction Bidder Line is available to assist bidders with first time login procedures, review of round results and announcements, and auction-related questions. In general, telephonic bidding will be available for the assignment phase of Auction 110.[2] A telephonic bid assistant will be able to answer questions and, if necessary, to place bids on behalf of the bidder using the Place Bids screen, but not by bid upload. The telephone number for the Auction Bidder Line is provided with your registration materials.

Bidders will need to provide the telephonic bid assistant with the appropriate login information (Username, RSA PIN and RSA tokencode) to access the bidding system.

3.6. Additional Information

Appendix 1: System Troubleshooting provides additional information about common errors that you may encounter when accessing the bidding system.

Appendix 2: RSA SecurID® Token Information provides additional information about RSA tokens. It explains what to do if a bidder wishes to change or replace an authorized bidder/user and what to do in the event of lost or damaged RSA tokens.

Appendix 3: Simultaneous Bidding on Behalf of the Same Bidder provides additional information about situations in which two users try to submit bids on behalf of the same bidder at the same time.

[2] Telephonic bidding was not available for the clock phase of Auction 110, because it was not feasible given the requirement to upload a file to submit bids.

4. System Navigation and Overview

The bidding system provides bidding information in two ways: on screens, accessed through the navigation bar; and through downloadable files, generally accessed via the Downloads screen. In addition, the My Bid Options sample bids upload file is available on the Upload Bids screen once the bidding system becomes available.

This section provides an overview of the bidding system and describes how to navigate through these screens.

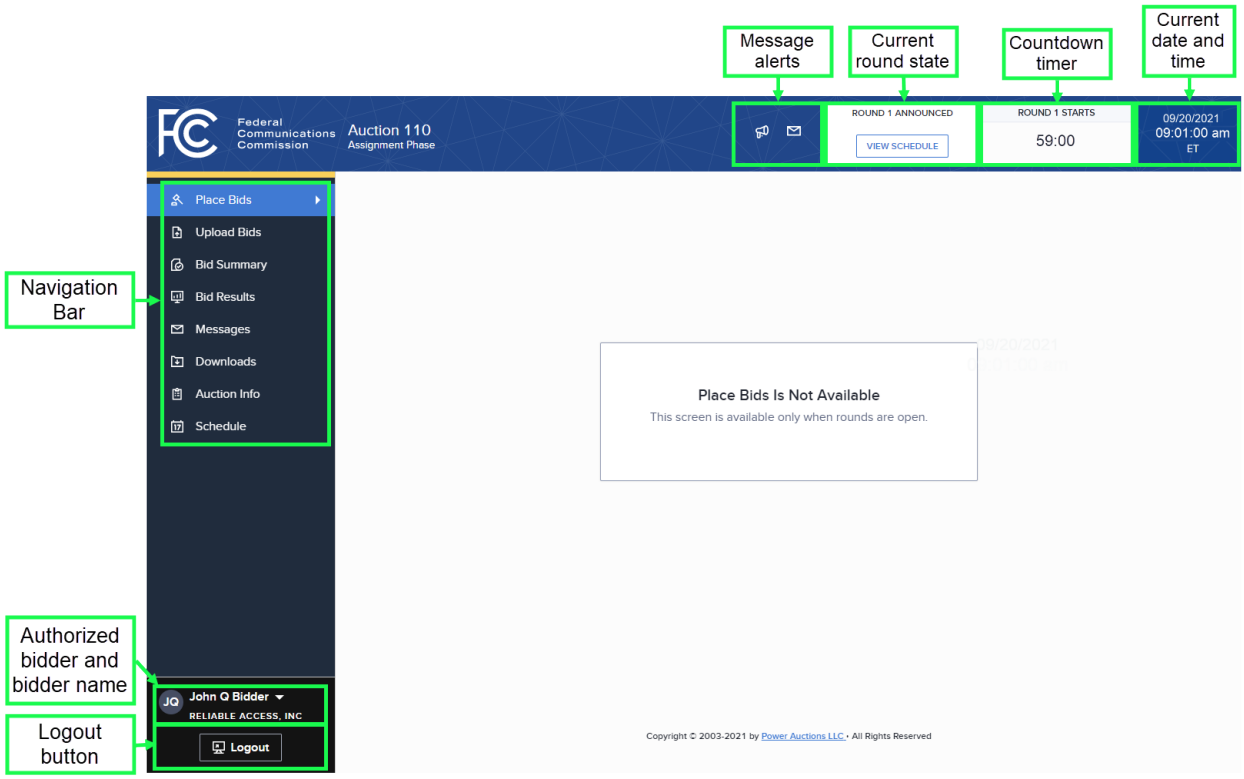
4.1. Navigation Bar and Features Common to All Screens

All screens in the bidding system have a navigation bar[3] on the left side, which provides links to the other available screens. Beneath the navigation bar is the name of the bidder and the authorized bidder who has logged in and the Logout button, as described in Section 3.4.[4]

The blue bar at the top of each screen is also common to all screens. It displays status and timing information. It shows Message alerts, a Mini Dashboard with the round number and round status, and links to the most useful screen(s) to be accessed at any given state, a countdown timer showing the time to the beginning or the end of a round, and the current date and time in Eastern Time (ET). An illustration of the navigation bar and common screen features is shown in Figure 1.

[3] The system has been optimized to display all the information without horizontal scrolling on 1920 x 1080 screens at 100% scale (in Windows settings) and 100% zoom with medium font size (in browser settings).
[4] Users are advised to use the navigation features of the bidding system rather a browser's forward and back navigation functions, which may produce unpredictable results.

Figure 1: Navigation bar and features common to all screens



4.2. Summary of Bidding System Screens

The navigation bar provides access to eight screens. Their functions are summarized in Table 1 below in the order in which they appear on the navigation bar.

Table 1: Summary of screens reached from the navigation bar

Screen	Description
Place Bids	Allows the user to submit bids for the current round by entering bids on a screen
Upload Bids	Allows the user to submit bids during a round, for the current round and for future rounds, by uploading a bid file
Bid Summary	Displays a summary of all bids submitted on behalf of the bidder for a particular round
Bid Results	Displays the results of bid processing for the bidder for all rounds in which the bidder has assignments
Messages	Allows the user to view announcements and messages from the FCC, and to send messages to the FCC

Screen	Description
Downloads	Allows the user to download files about the bidder's bidding options, bids, and results
Auction Info	Displays static information about the assignment phase markets, the assignment rounds and the final clock phase prices for each category and PEA, along with a summary of the bidder's winnings
Schedule	Displays the schedule for upcoming assignment rounds and contains information about rounds in which the bidder can bid

4.3. Features Common to Several Screens

This section describes some features that are common to several screens.

4.3.1. Filter

Several screens include a filter dropdown, which allows the user to see a subset of the relevant data on the screen (see Figure 2 for an example).

4.3.2. Search

Several screens include a search box, which can be used to search for a specific market by typing the market ID or the market name (see Figure 2 for an example). You can search for all assignment phase markets that include PEAs in a given state by typing a comma followed by a space and then the two-letter abbreviation for the state (e.g., ", AL" for Alabama). This will bring up any assignment phase market with PEA names that are followed by "AL".

4.3.3. Pagination

When the number of relevant assignment phase markets exceeds 25, the information is split into multiple pages ("paginated") with up to 25 assignment phase markets per page, and a page selector is provided at the bottom of the screen.

4.3.4. Print

Several screens include a print icon, which can be used to print the content of the screen. The information from all pages of the screen gets printed. You can use the filters provided on the screen to reduce the number of assignment phase markets that are included in the printout. It is also possible to print using your browser's print functionality, but the result may not be formatted appropriately. For some browsers it might be necessary to choose the "Landscape" format or to edit the scale, in order to fit all the data on the page.

4.3.5. Round Selector

Several screens include a round selector which allows you to access the data for a previous round or all rounds. A blue dot next to the round number indicates the current round.

4.4. Downloads

The following table provides a summary of the downloads available in the bidding system and how to access these downloads.

Table 2: Summary of downloads available in the bidding system

Download File	Where to access	Description	Availability
My Bid Options	Upload Bids	This file is a template for placing bids via uploads and contains the bidder's bidding options.	Available after a round is announced and during a round
My Bids	Downloads – General Tab	This file contains all submitted bids for all of the bidder's bidding options, including for future rounds.	Updates every time bids are submitted
My Results	Downloads – General Tab	This file contains the results of bid processing for each of the assignment rounds, including pre-assignments.	Updates when the results of the round are posted
My Bidder Status	Downloads – General Tab	This file contains the cumulative payment information for the bidder after every assignment round.	Updates when the results of the round are posted
My Bidder Assignment Rounds	Downloads – Configuration Tab	This file contains all the assignment rounds that include PEAs where the bidder has winnings.	The information in the file is static
My Audit Log	Downloads – Audit Tab	This file contains an audit log of the bidder's bidding activity.	Updates every time a bidding action is performed for the bidder

5. Viewing Auction Information

The Auction Info screen provides static information about the assignment phase markets and the assignment rounds, as well as the bidder's clock phase winnings, if any, in each round. The screen has two tabs: Assignment Rounds and General Info, which are explained in further detail below. You may access the Auction Info screen whenever the bidding system is available. The information on the Auction Info screen does not change throughout the assignment phase.

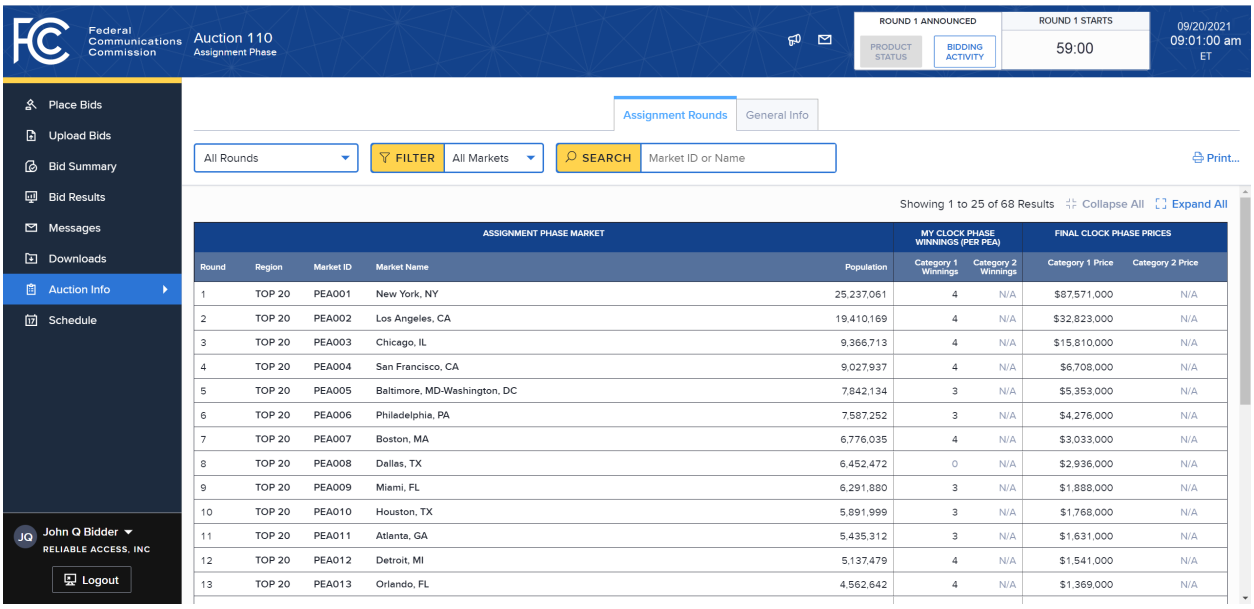
5.1. Assignment Rounds

The Assignment Rounds tab of the Auction Info screen displays information that is available to all bidders about each round of the assignment phase as well as bidder-specific information about their clock phase winnings. For each round and each assignment phase market that will be assigned in that round, the screen displays the round number, the region, the market number(s) and name(s) of the PEA(s), the population of the assignment phase market, the bidder's clock phase winnings, and the final clock phase prices. The Region column indicates whether the PEA is in the Top 20 PEAs, and if not, provides its REAG number. The columns Category 1 Winnings and Category 2 Winnings provide the number of blocks the bidder won in the clock phase. The columns Category 1 Price and Category 2 Price provide the final clock phase prices for each PEA or PEA group in these categories, or display "No Blocks Sold" if no blocks were sold in the clock phase.

After a round is announced, the screen by default lists the current round information. The user can view data for "All Rounds" or for a particular round by selecting the appropriate option in the round dropdown on the top left corner of the screen. The filter dropdown includes the options "All Markets" and "Only My Winnings". "All Markets" lists all assignment phase markets in the auction. "Only My Winnings" lists only the assignment phase markets in which the bidder has clock phase winnings. Additionally, the data can be searched by the market number (by typing "PEAyyy" where "yyy" is the 3-digit PEA number), or the market name using the search box. The screen is paginated.

Figure 2 below, shows the Assignment Rounds tab, displaying information for "All Rounds" and "All Markets".

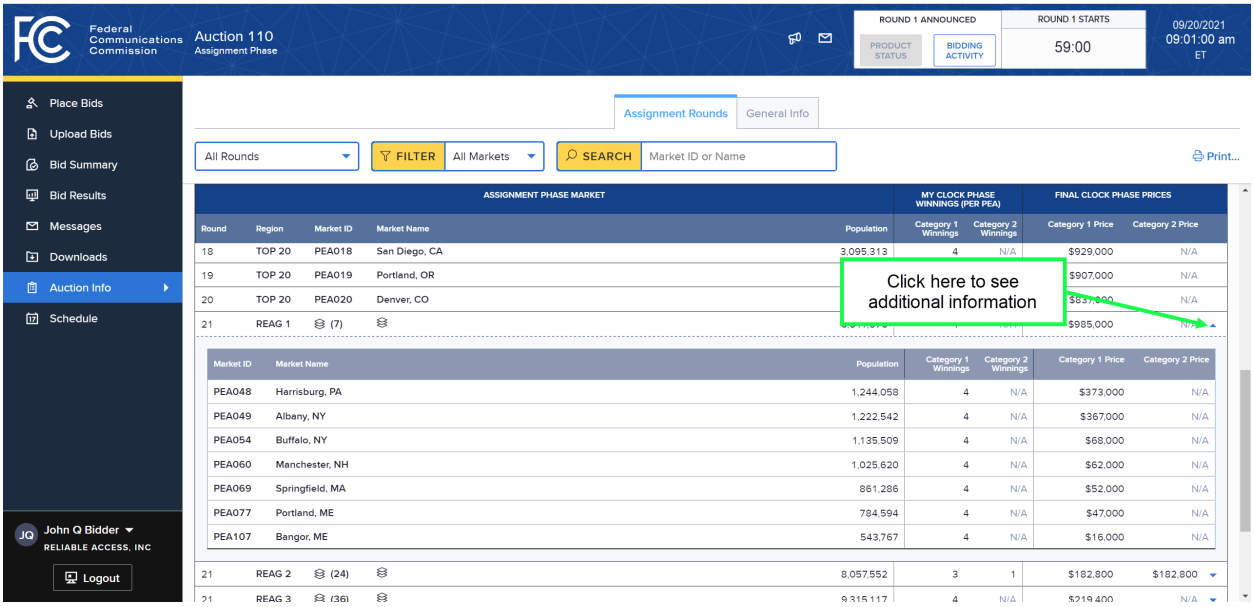
Figure 2: Auction Info screen – Assignment Rounds tab



There is one row per round and REAG (or Top 20) combination. If the assignment phase market includes at least two PEAs, the stack icon will be shown in the Market ID and Market Name fields for that PEA group (see Figure 3). The number in parentheses in the Market ID field indicates the number of PEAs in the group. The Population and Price columns show the sum across all PEAs in the group, whereas the Winnings columns show the bidder's winnings per PEA in the group. By clicking on the downward arrow to the right of the stack icon or anywhere else in that row, the row expands to show all PEAs in that assignment phase market along with each PEA's population and clock phase prices and the bidder's clock phase winnings in the PEA.

Figure 3 provides an example of the screen for a round where some PEAs are grouped and where multiple REAGs are being assigned in the same round.

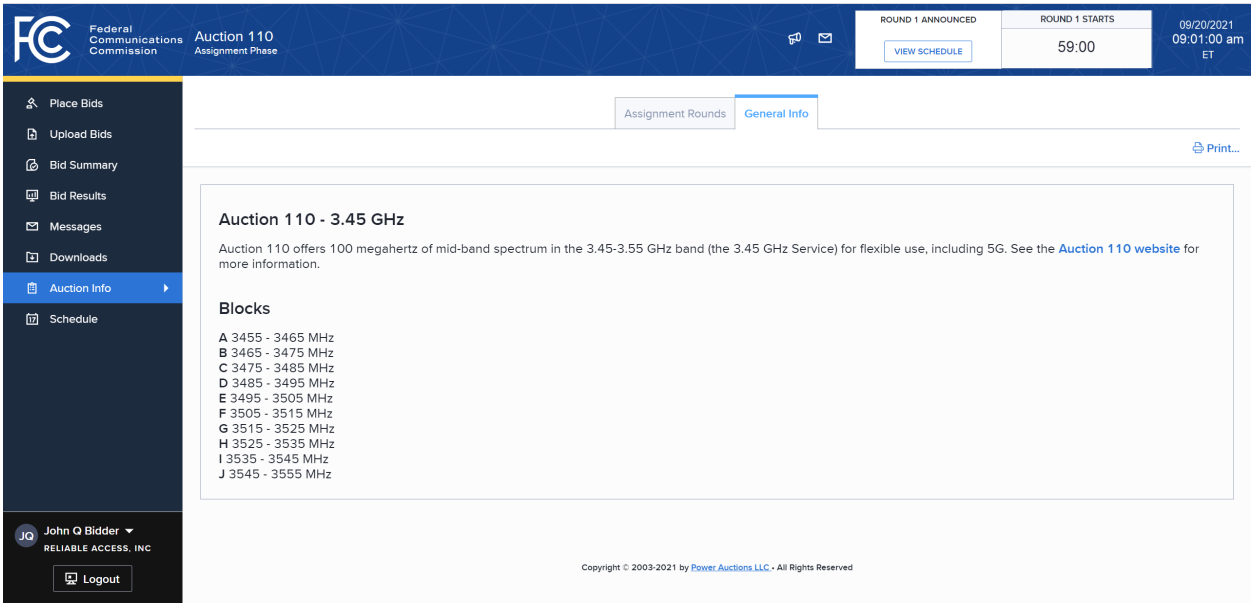
Figure 3: Auction Info screen – Assignment Rounds tab – Round with multiple REAGs



5.2. General Info

The General Info tab of the Auction Info screen, shown in Figure 4, contains general information about the auction. The information on this tab may be changed at any time by the auction administrator.

Figure 4: Auction Info screen – General Info tab

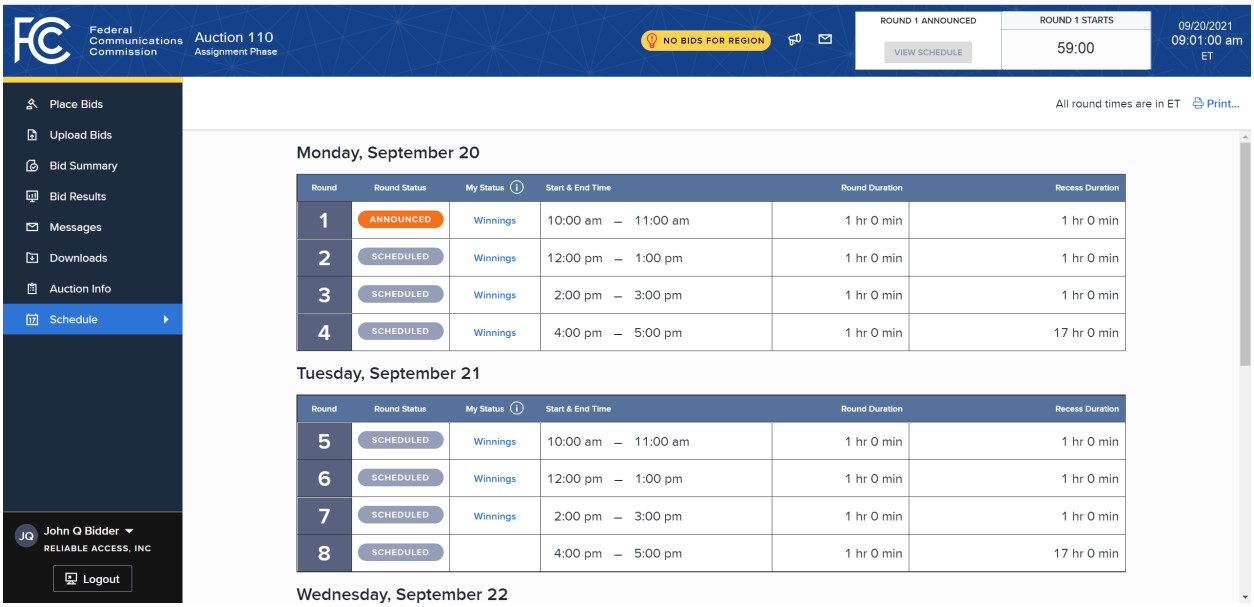


6. Schedule and Messages

6.1. Schedule

The Schedule screen shows the current schedule for upcoming rounds in Eastern Time (ET), as illustrated in Figure 5. The schedule shows the date, duration, start time and end time for each round, the duration of the recess, the status for each round, and whether the bidder has clock phase winnings in the round. You will be able to bid in rounds for which "Winnings" is displayed in the My Status column; these are the rounds where you have clock phase winnings.

Figure 5: Schedule screen



The FCC may adjust the number of rounds per day as the auction proceeds. The schedule displayed in the example does not indicate the expected number of rounds in the auction.

6.2. Messages: Announcements and Conversations

Please refer to the Auction 110 Clock Phase Bidding System User Guide (available in the Education section of the Auction 110 website, www.fcc.gov/auction/110) for an explanation of the messaging functions, including the following topics:

6.2.1. Receiving and Reviewing Announcements

6.2.2. Conversations with the FCC

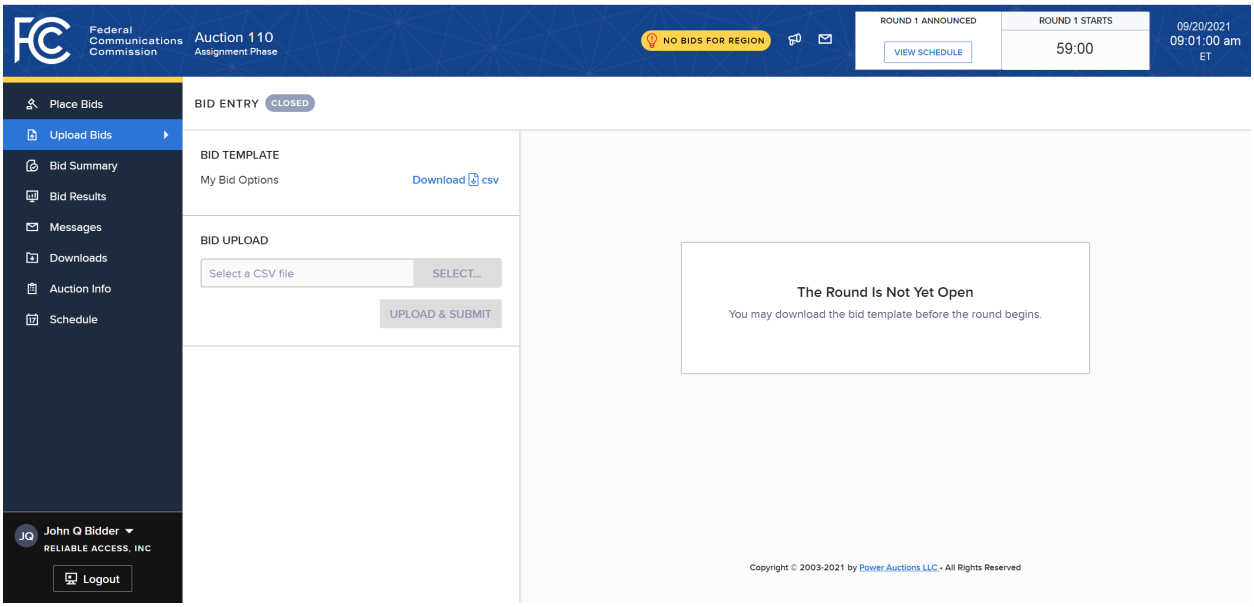
7. Bidding

7.1. Viewing Available Bidding Options

As soon as the bidding system becomes available, you can download the full list of bidding options for the bidder. This information is provided in the My Bid Options file, which is available on the Upload Bids screen, illustrated in Figure 6. This file provides information about all of the bidding options available to the bidder for all assignment rounds in which it can bid, based on its clock phase winnings. This file can be used to upload bids for the current and future rounds, as described in Section 7.3.

Details about the specification for this file may be found in the "Auction 110 Assignment Phase Bidding System File Formats" document located on the Auction 110 website in the Education section (available at www.fcc.gov/auction/110).

Figure 6: Bid template



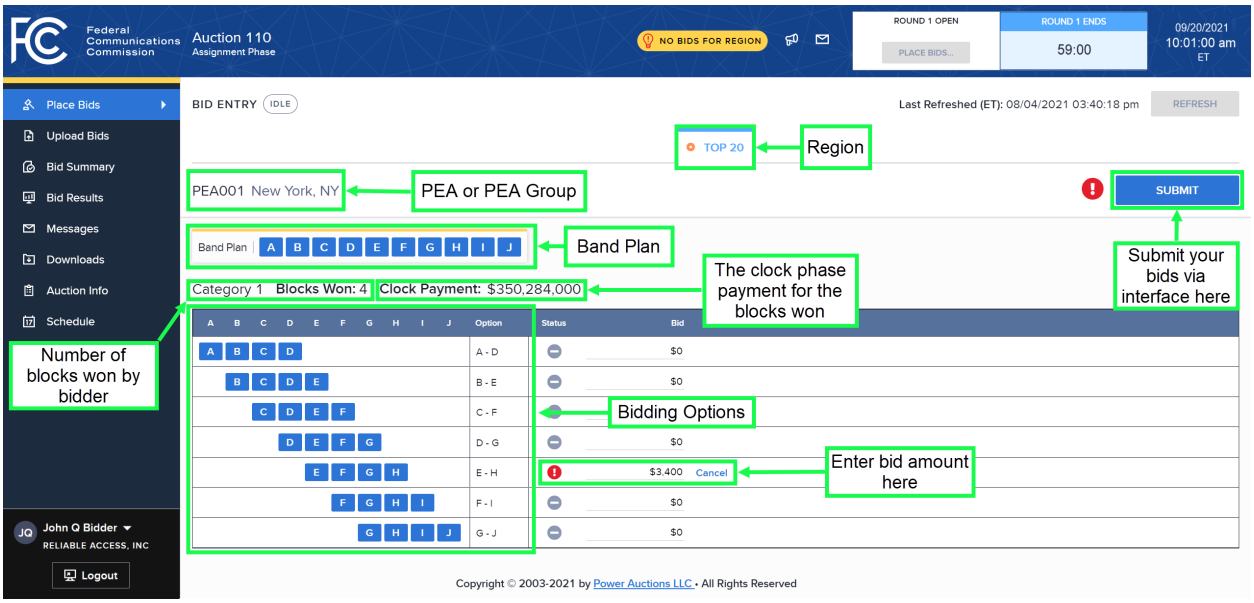
7.2. Placing Bids via the User Interface

When a round is open for bidding and you have clock phase winnings for that round, you can enter bids through the Place Bids screen.

7.2.1. Layout and Actions of the Place Bids Screen

The Place Bids screen is accessed through a link on the navigation bar on the left. Figure 7 illustrates the layout of the Place Bids screen before any bids have been submitted for the round. The bidder in this example has won four blocks in PEA001, a market with a single category.

Figure 7: Place Bids screen



At the top of the Place Bids screen is a list of the PEA(s) being assigned in the current round. The Band Plan shows the blocks of the PEA(s) that will be assigned in the round. The lower portion of the screen shows all of the bidder's bidding options for each category. Next to each bidding option, the screen displays the bid status of that option and provides a field where you can enter a bid amount. The Submit button allows you to submit the bids you have entered on the user interface.

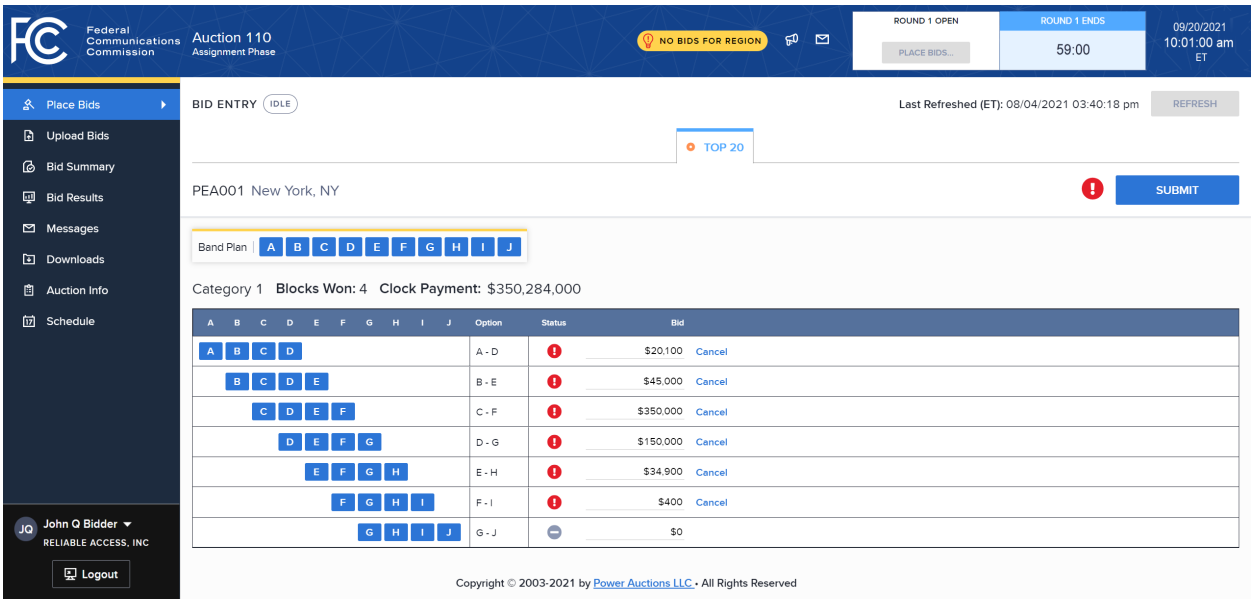
If no bids have been submitted for a region, a yellow badge "NO BIDS FOR REGION" in the blue bar at the top and a yellow circle with a hover "No bids for region" in the region tab alert the user that there may be outstanding bids not yet submitted.

A bidder who has no clock phase winnings for the current round but has clock phase winnings for some future rounds will not be able to submit bids using the Place Bids screen during this round but can submit bids for future rounds using the Upload Bids screen. If a bidder does not have any clock phase winnings for the remaining assignment rounds of the auction, the Place Bids and Upload Bids screens will not be available.

7.2.2. Entering and Submitting Bids

To enter a bid on the Place Bids screen, enter a bid amount in the Bid column field corresponding to the desired bidding option (see Figure 8). Once you enter a bid amount for an option, the status for this bidding option under the Status column will change from a white dash in a grey circle ⊖ to a white exclamation mark in a red circle ❗ indicating that you have entered a bid but you have not yet submitted it. You can then repeat this for all options for which you wish to place bids. If you change your mind and decide that you do not wish to enter a bid for that option, you can click on Cancel next to the bid amount.

Figure 8: Place Bids screen – Bids have been entered but have not been submitted



For each bidding option with an entered bid, the bidding system displays a white exclamation mark in a red circle in the Status column to indicate that a bid has been entered but has not been submitted yet. For each bidding option for which no bid is entered, the bidding system displays a white dash in a grey circle in the status column. If you have any unsubmitted bids on the screen, there is also an exclamation mark shown next to the Submit button (see Figure 8 above).

Each bid amount must be non-negative, must be a multiple of $100, and cannot exceed $999,999,900. If you enter an invalid bid amount, the system will display an error message to the right of the Cancel link, and the Submit button will be disabled until you enter a valid bid amount or click Cancel to discard your changes.

For your convenience, the bidding system provides two shortcuts for entering bid amounts. First, entering a "k" after a bid amount multiplies your bid by 1,000 (e.g., 75k becomes 75,000). Second, entering "m" after a bid amount multiplies your bid by 1,000,000 (e.g., 2m becomes 2,000,000).

If you do not wish to bid for a particular option, leave the bid amount for this option at the default value of $0.

> *During bid processing of a round, the bidding system considers bids for all bidding options including bidding options with a zero bid amount.*

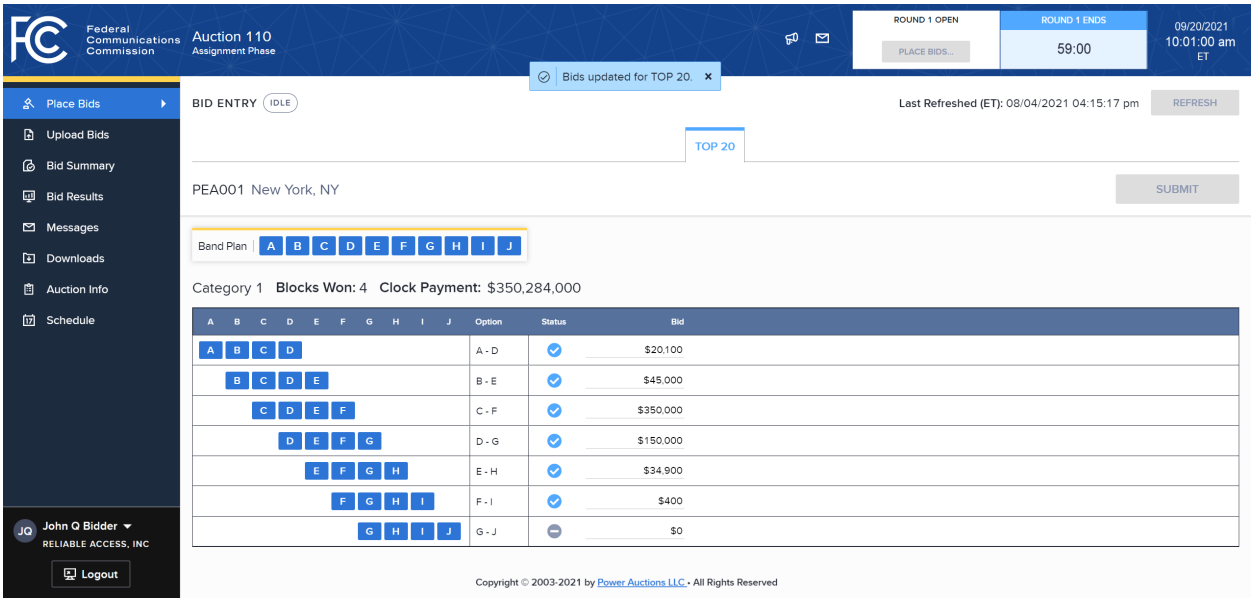
Only bids that have been submitted will be processed by the bidding system. Once you have entered the bids for all options on which you wish to bid, you must click Submit to submit all of the bids. The Status column will show a white check mark in a blue circle to indicate the bids that have been successfully

submitted to the bidding system, as seen in Figure 9. For each bidding option for which you have a zero bid amount, the bidding system displays a white dash in a grey circle ⊖ in the status column.

The Bid Entry badge at the top left of the screen reads "IN PROGRESS" if the system is processing a bid submission either by you or by another authorized bidder of the same company or by a Telephonic Bid Assistant submitting bids for your company. You will not be able to edit or submit bids at this time. During a round, the bidding system will display a warning popup message if you try to navigate away from the Place Bids screen after entering a bid amount for a bidding option without submitting the bid. If you then choose to leave the screen, any bids that you entered but did not submit will be lost.

> ✍ *You must submit your bids using the* Submit *button before leaving the page and before the round is over.* ***Any bids that are entered but not submitted will be lost.***

Figure 9: Place Bids screen – Bids have been submitted



7.2.3. Changing Bids

As long as the round remains open, you may modify any submitted bids by clicking on the bid input field and entering a new bid for a bidding option. The bidding system will replace the checkmark ✔ for the bidding option with the red exclamation mark ❗ to indicate that any modified bid amount has not yet been submitted. If you would like to delete a bid, change the bid amount to $0.

Only bids that have been submitted will be processed by the bidding system. Once you have finished making changes to your bids, you must click Submit again in order to submit those changes to the bidding system, otherwise the previously submitted bids will remain in the bidding system. The bidding

system displays a large red exclamation mark ❗ next to the Submit button to indicate that you have at least one unsubmitted bid.

7.2.4. Bidding in Rounds with REAGs

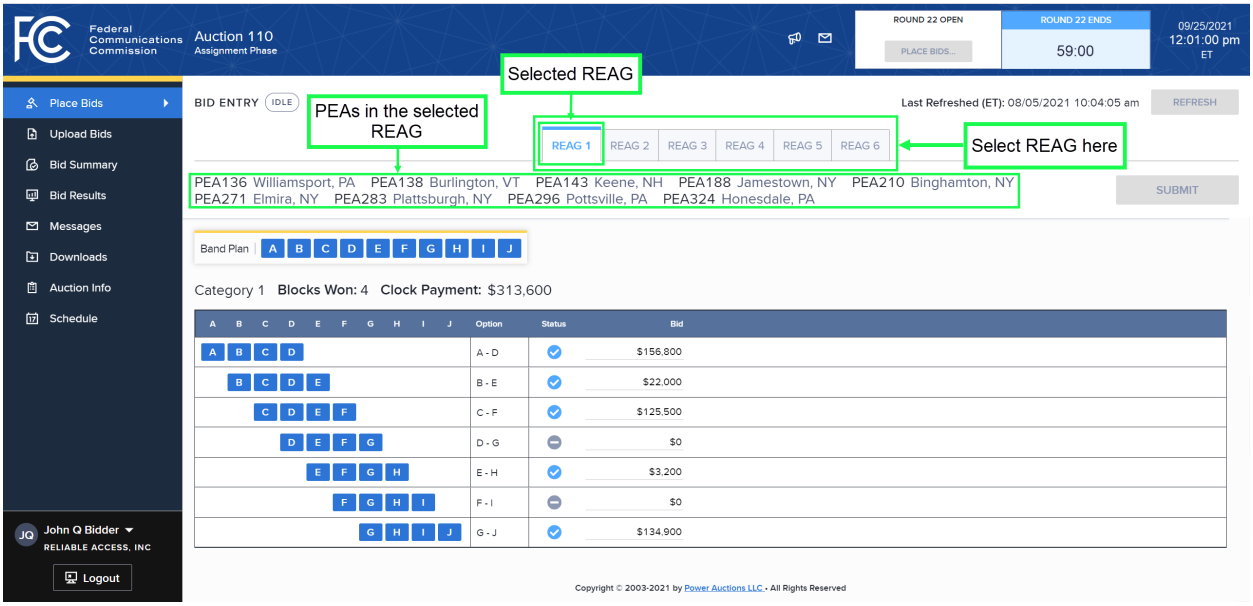
After the Top 20 PEAs are assigned, PEAs or PEA groups will be assigned simultaneously in multiple REAGs. In these rounds, the Place Bids screen will have a separate tab for each REAG where the bidder has clock phase winnings.[5] Figure 10 provides an example of the Place Bids screen in a round in which bidding is occurring for PEAs in six different REAGs.

To place a bid for a PEA or PEA group in a particular REAG, click on the tab for that REAG on the Place Bids screen to display the bidding screen for the PEA(s) being assigned in that REAG in that round.

As long as the round remains open, you may modify your bids for any of the PEAs or PEA groups being assigned during that round, as described in Section 7.2.3. However, you must submit your bids for options in one REAG before moving to a different REAG; otherwise any bids that you entered but did not submit in a REAG will be lost.

> ✍ *Bids in one REAG must be submitted before moving to another REAG; otherwise they will be lost.*

Figure 10: Place Bids screen – Round with REAGs



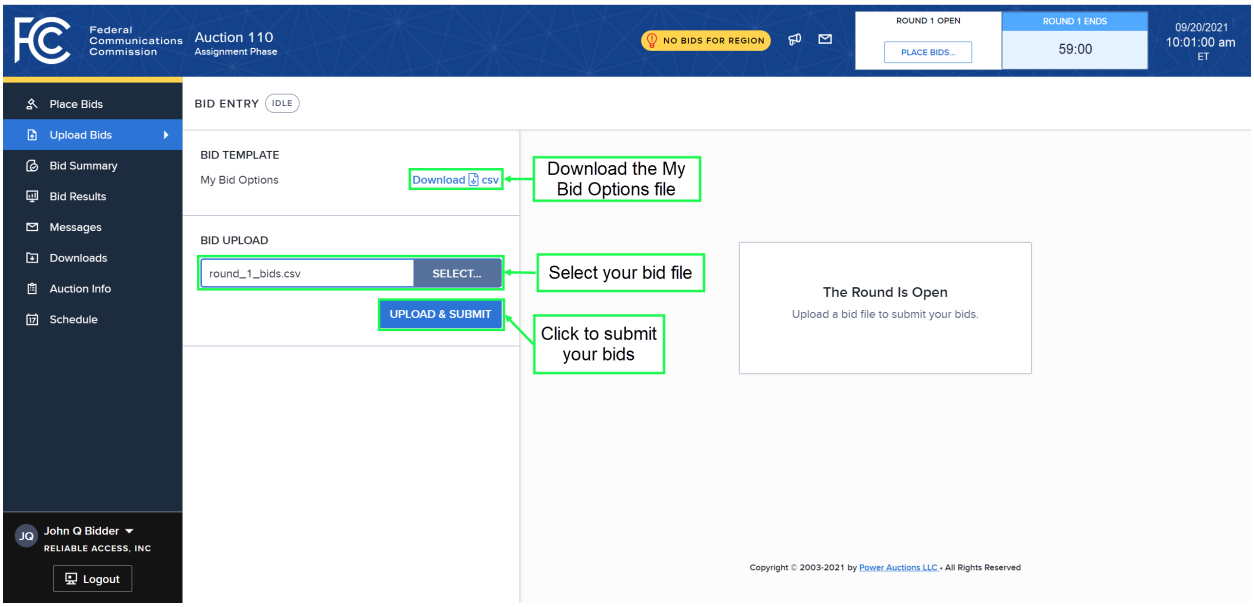
[5] If the bidder did not win any blocks in a particular REAG for the round, then that REAG is not shown in the region tab.

7.3. Placing Bids via File Upload

The Upload Bids screen allows you to upload and submit bids for all rounds in which the bidder is permitted to bid. You may download the bid template as soon as a round has been announced, starting with round 1. You may upload bids at one time for every round in which you are eligible to bid, or you can upload bids in separate rounds. Uploading bids is only possible during an open round. Any bid upload file must include all bidding options for the current and future rounds. The system will not accept a bid upload file that includes bidding options for past rounds. New bids uploaded for the current or future rounds replace previous bids entered via a bid upload or via the Place Bids screen. Full details on the specification of the bid upload file are available in the "Auction 110 Assignment Phase Bidding System File Formats" document located on the Auction 110 website in the Education section (available at www.fcc.gov/auction/110).

An example of the Upload Bids screen is shown in Figure 11 below.

Figure 11: Upload Bids screen



In order to upload bids, you can follow these steps:

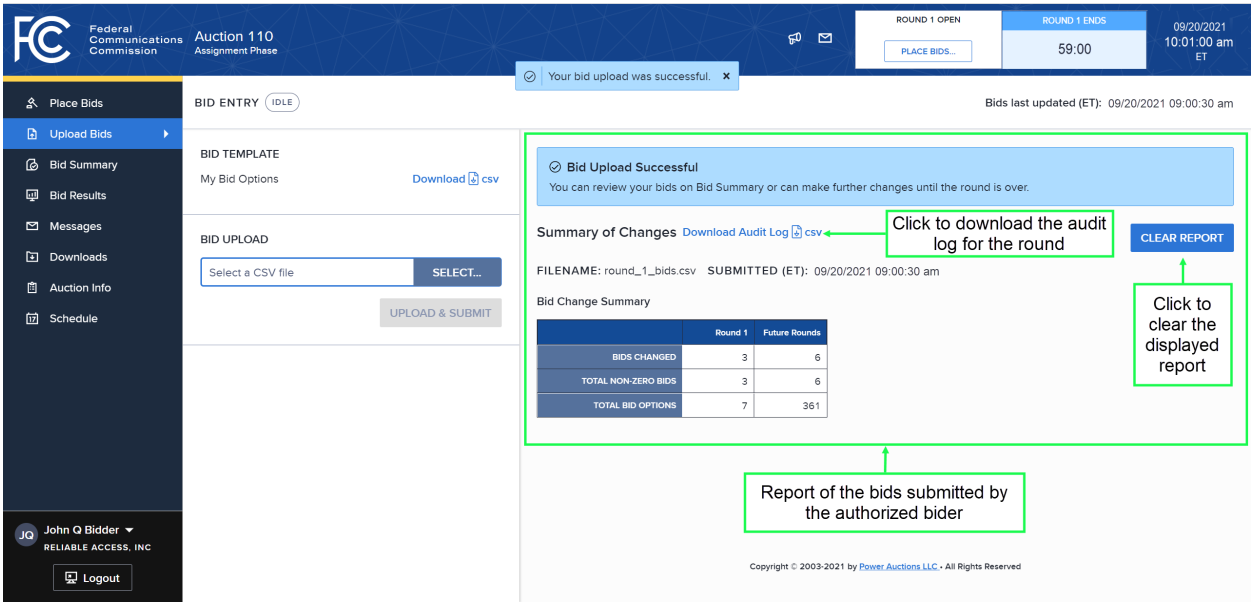
1. Download the My Bid Options file by clicking on the "Download csv" symbol.
2. In the file, make the necessary changes to the bid prices in the "ASSIGNMENT_ROUND_BID" column. If the bidder has not previously entered a bid amount for an option, the "ASSIGNMENT_ROUND_BID" column will show a $0 bid amount for the bidding option.
    - Do not change the data in the columns "ROUND", "REGION", "CATEGORY" and "OPTION".
    - Ensure that there is a line for every bidding option for the current round and for any future rounds.

- If you wish, you can choose to upload bids only for the current round (by leaving zeros for all bidding options for future rounds). You may also upload bids for a future round at any time prior to the future round closing.
- Only the columns "ROUND", "REGION", "CATEGORY", "OPTION", and "ASSIGNMENT_ROUND_BID" are required (and the column header in the first line of the file must use the precise names for these columns). All other columns will be ignored.

3. Save the modified file. Then, from the Upload Bids screen, browse to select the file by clicking on the SELECT button, and then click on the UPLOAD & SUBMIT button.

When bids are successfully uploaded, the Upload Bids screen will display a message indicating that the bid upload was successful, and a summary of the bids will be provided below the message (see Figure 12). This summary, labeled "Bid Change Summary", lists the number of bids that changed as a result of the upload, the total number of non-zero bids submitted and total number of bidding options for the current and for future rounds. The report field also provides a downloadable audit log file that includes all bidding actions for the bidder in the round.

Figure 12: Upload Bids screen – Successful upload



You can review the bids you have uploaded by downloading the My Bid Options file or by accessing the bidder's audit log file. You can also view the bids you have uploaded for the current and future rounds by viewing the Bid Summary screen, described in Section 8.1.

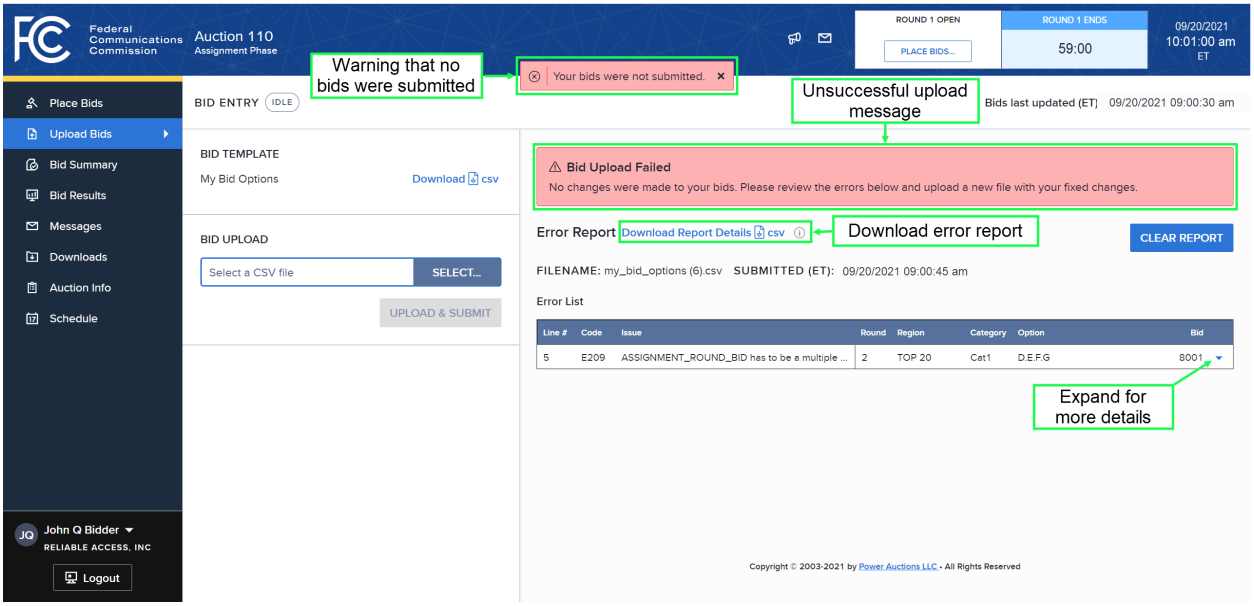
If a bid upload file contains errors that prevent the bids from being submitted successfully, the system will reject the entire upload and the Upload Bids screen will notify the user that the upload was not successful and will display one or more error messages in the report field, as illustrated in Figure 13. The bidding system will list up to ten errors in the report field, with the associated error codes. You can click on the downward arrow in the Bid column (or anywhere else in the row) to see the raw data that was uploaded. In addition, there is a Download Report Details link to a file containing the list of errors,

capped at 50, along with explanations. See Appendix 4: Bid Upload Errors for a full list of the possible error codes and an explanation for each.

The bidding system may not report all errors in a given upload attempt. This can occur if something basic is wrong (e.g., one of the five mandatory columns is missing), or if there are more than 50 errors. Once the reported errors are fixed and the file is uploaded again, the system will check the new file and report any further errors.

If an upload is unsuccessful, the system does not delete, change, or add any bids. The bids that were present prior to the unsuccessful upload remain.

Figure 13: Upload Bids screen – Unsuccessful upload



To remove the error status from a screen, you can either fix the errors in the upload file and resubmit the file or click on the CLEAR REPORT button. Clicking on CLEAR REPORT removes the error report from the screen, but does not have any effect on the bidder's submitted bids.

> *Only bids that have been successfully uploaded will be processed by the system. If your bid upload is unsuccessful, be sure to correct the errors in the bid file and submit your bids before the round ends.*

8. Verifying Bids

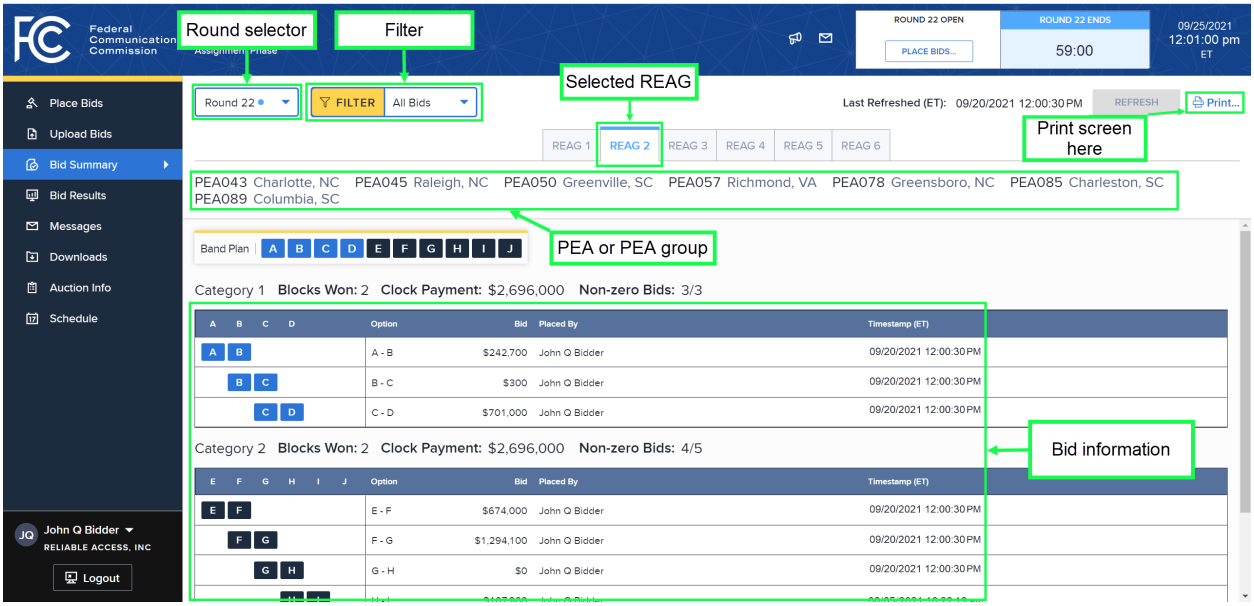
The bidding system only processes bids that were submitted correctly, and so to help bidders avoid errors, the system provides a bidder with two ways to verify that its bids were submitted correctly, in addition to the bid status indicators on the Place Bids screen.

8.1. Bid Summary

After the first round opens and throughout the assignment phase, you may verify the bids that have been submitted on behalf of the bidder, in the current round and for all past rounds, on the Bid Summary screen.[6] If you select a future round from the round dropdown menu, the Bid Summary screen will display the bids that have been submitted via the bid upload feature for that future round. Confirmation of bids submitted for future rounds can also be found in the My Bid Options download (see Section 8.2).

The layout of the Bid Summary screen is shown in Figure 14 below. At the top of the Bid Summary screen is a round selector, a filter, tabs for each region that the bidder can bid for in a selected round, and a printer icon. The lower portion of the screen shows the bidder's bidding options for each PEA or PEA group assigned in the selected round. Next to each bidding option, the screen displays the bid amount for that option, the name of the authorized bidder that submitted the bid, and the time of bid submission. In addition, the count for non-zero bids indicates how many options have bids with positive bid amounts. You may also filter the data to show either "All Bids" or only "Non-zero Bids".

Figure 14: Bid Summary screen



[6] A bid may have been submitted by you, by another authorized bidder for the bidder, or by a telephonic bid assistant entering bids on the bidder's behalf. This will be indicated in the Placed By column for the bid.

Bid information for the most recent current or completed round is shown by default. To see bid information for a previous or future round, select the round number from the round dropdown menu, located at the top of the screen.

You may print a record of submitted bids in a round by clicking on the printer icon on the Bid Summary screen.

It is recommended that you view this screen before the current round is over to confirm that the bids displayed reflect your intentions for the round. If they do not, you can return to the Place Bids screen or Upload Bids screen to make further changes and submit these before the round is over.

> ✍ *Check the Bid Summary screen to ensure that all entered bids were submitted.*

The Bid Summary screen contains the last submitted bid for each option. It does not contain earlier bids that were submitted for that option but subsequently changed.

8.2. Downloads

You may also verify the bids that have been submitted via several downloadable files.

The My Bids file is available from the General tab on the Downloads screen. It can be accessed as soon as round 1 has been announced, and it shows up-to-date information on the bidder's most recently submitted bids for each round, including past and future rounds. The My Bids file contains the same information as the Bid Summary screen for all rounds (see Section 8.1). The My Bids file does not contain bids that were submitted earlier in a round but were subsequently changed.

The My Bid Options file is available from the Upload Bids screen as soon as a round has been announced. While the main purpose of the file is to provide a template for bid uploads, the file also provides up-to-date information about the status of bids submitted during the current round and bids submitted by upload for future rounds. This file does not contain information about previous rounds.

The My Audit Log file is available from the Audit tab on the Downloads screen. It provides information about bids submitted in a particular round, including bids uploaded in that round for future rounds. Note that the My Audit Log file will not show those bids that were uploaded in a round different than the selected round.

9. Viewing Results

You can view your assignment results on the Bid Results screen, which can be accessed from the navigation bar. Information displayed on this screen is also downloadable from the Downloads screen. Note that, unlike during the clock phase, the Public Reporting System does not display the schedule or round-by-round results for the assignment phase.

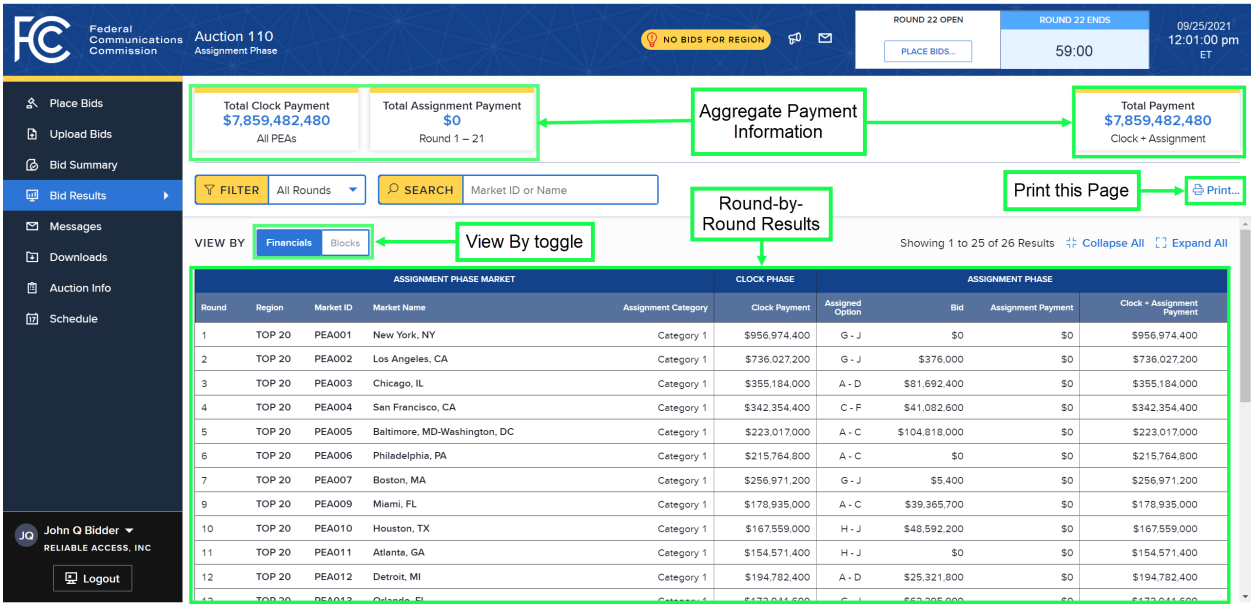
9.1. Bid Results Screen

The Bid Results Screen shows your results for all rounds that have been posted. The top portion of the screen displays the bidder's aggregate payment information, specifically the clock phase payment for all PEAs, the assignment payment to date (which updates after each round), and the total (which is the sum of the clock phase payment and the assignment payment). If a bidder has claimed a bidding credit, the bidding system will display the total net payment, taking into account any bidding credit discounts and bidding credit discount caps, as shown in Section 9.2.

The lower part of the Bid Results screen lists the bidder's round-by-round assignment results. A separate row is shown for each assignment phase market and category. The View By toggle allows the user to select either the Financials view (see Figure 18) or the Blocks view (see Figure 19).

You may print a record of the bidder's assignment results to-date by clicking on the printer icon on the Bid Results screen.

Figure 15: Layout of the Bid Results screen



9.2. Aggregate Payment Information

The top portion of the Bid Results screen shows the bidder a running total of its payment obligations, equal to the sum of the bidder's clock phase payment across all PEAs and the assignment phase payments, if any, for all PEAs that have been assigned to date. The screen shows additional information if the bidder has claimed a bidding credit.

9.2.1. Total Payment Information

The Bid Results screen shown in Figure 15 provides an example of the aggregate payment information that is displayed in the top portion of the screen. This information includes:

- **Total Clock Payment (All PEAs):** The first box shows the bidder's total commitment for all winnings in the clock phase. It includes all PEAs, that is, both the PEAs that have already been assigned and the PEAs that will be assigned in future assignment rounds.
- **Total Assignment Payment:** The second box shows the bidder's total assignment payment for all assignment phase markets that have been assigned so far in the assignment phase. This is the total of the "Assignment Payment" column displayed in the round-by-round table below (see Section 9.3).
- **Total Payment (Clock + Assignment):** The third box provides the total of the first two boxes which represents the aggregate payment amount for the bidder as known at that point in the assignment phase.

The Clock Phase Payment (All PEAs) does not change as the assignment phase progresses. The Assignment Payment may increase when results are posted for a round in which the bidder was assigned one or more licenses. Therefore, as the rounds are processed, the bidder's total payment, which is the sum of bidder's Clock Phase Payment and Assignment Payment, may increase by the amount of the Assignment Payment.

A bidder with a bidding credit will see additional information related to its discounts as well as its net payments, as described in the following section.

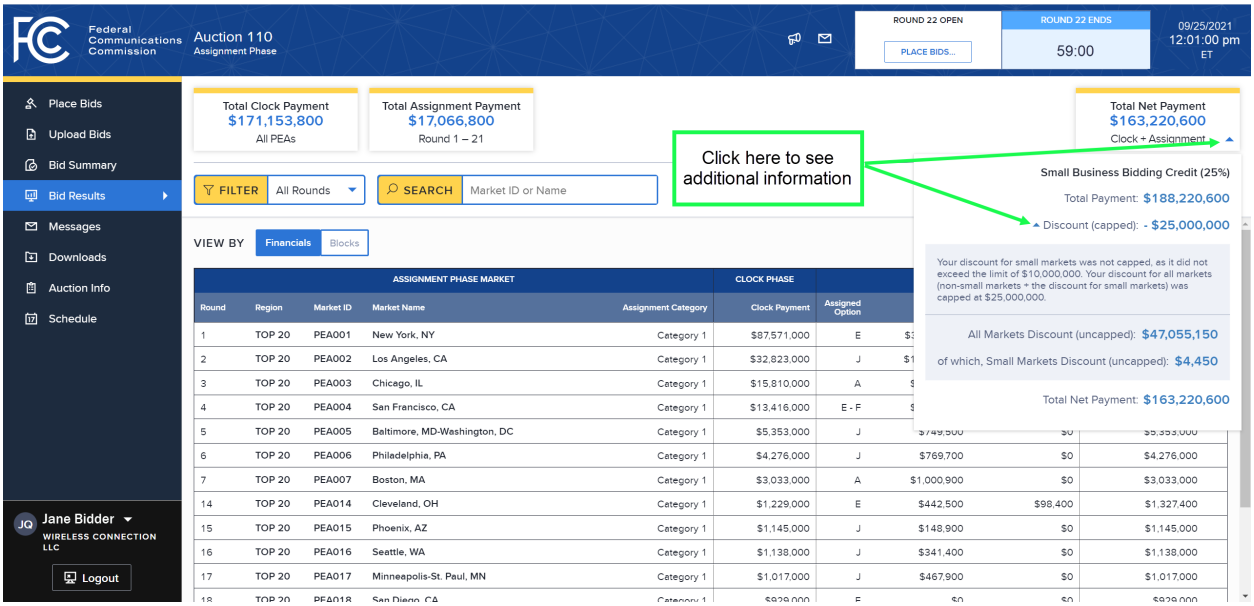
9.2.2. Total Net Payment Information

For a bidder that has claimed a bidding credit, in addition to gross aggregate payment information, the Bid Results screen shows the bidder's total net payment and bidding credit discount.

An example of the aggregate payment information for a bidder with a small business bidding credit is provided in Figure 16 below. The bidding system, by default, displays the total net payment (the total payment less any bidding credit discount) instead of the gross total payment on the screen. You can click on the triangle at the bottom right of the box to see the gross total payment and the corresponding discount (see Figure 16).

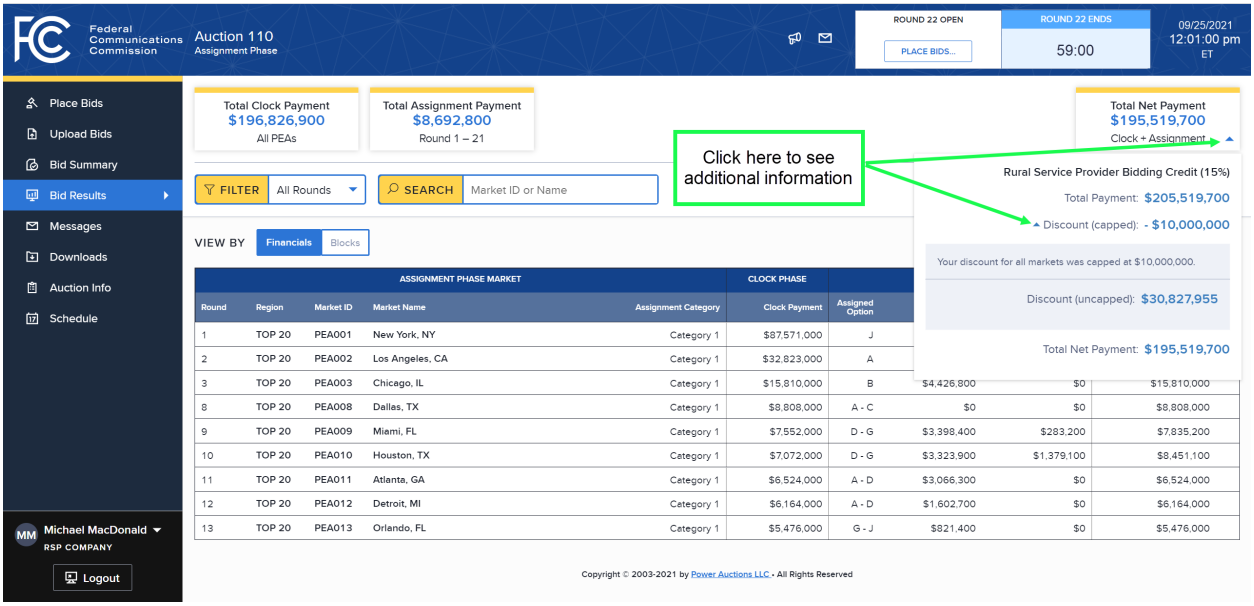
If the bidder's discount has been capped, the system will indicate that by including the text "(capped)" next to the discount, as shown in Figure 16 below. In that case, you can click on the triangle on the left of the discount to see uncapped discount information.

Figure 16: Bid Results screen – Bidder with a small business bidding credit



An example of the aggregate payment information for a bidder with a rural service provider bidding credit is provided in Figure 17 below. For this bidder, the screen also displays the total net payment by default. If you click on the triangle at the bottom right of the Total Net Payment box, you will see the total (gross) payment and the corresponding discount. If the bidder's discount has been capped, the system will indicate that by including the text "(capped)" next to the discount (see Figure 17). In that case, you can click on the triangle on the left of the discount to see uncapped discount information.

Figure 17: Bid Results screen – Bidder with a rural service provider bidding credit



The bidding credit caps apply to the sum of aggregate payments from both the clock phase and the assignment phase of Auction 110. A bidder with a bidding credit discount may reach its bidding credit cap(s) in the clock phase or the assignment phase.

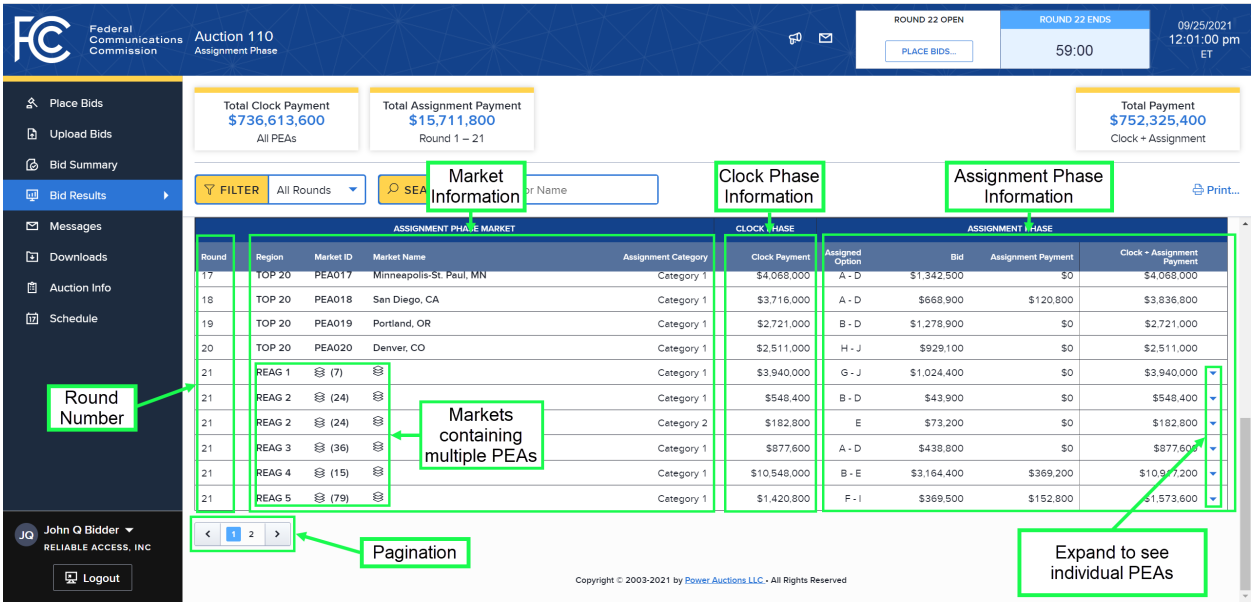
9.3. Round-by-Round Bidder Results

The lower part of the Bid Results screen displays the bidder's assignment and payment results for all posted assignment rounds in which the bidder had clock phase winnings. You may customize the data shown in the table by selecting a single round or all rounds in the dropdown filter, by using the View By toggle to select the Financials view or the Blocks view, and by typing a search parameter in the SEARCH field (see Figure 15).

The first five columns of the table display the same information, regardless of which view (Financials or Blocks) has been selected. The assignment round number is displayed in the first column, and the next four columns provide information about the assignment phase market and category, specifically, the region number, the market ID(s) and name(s), and the category.

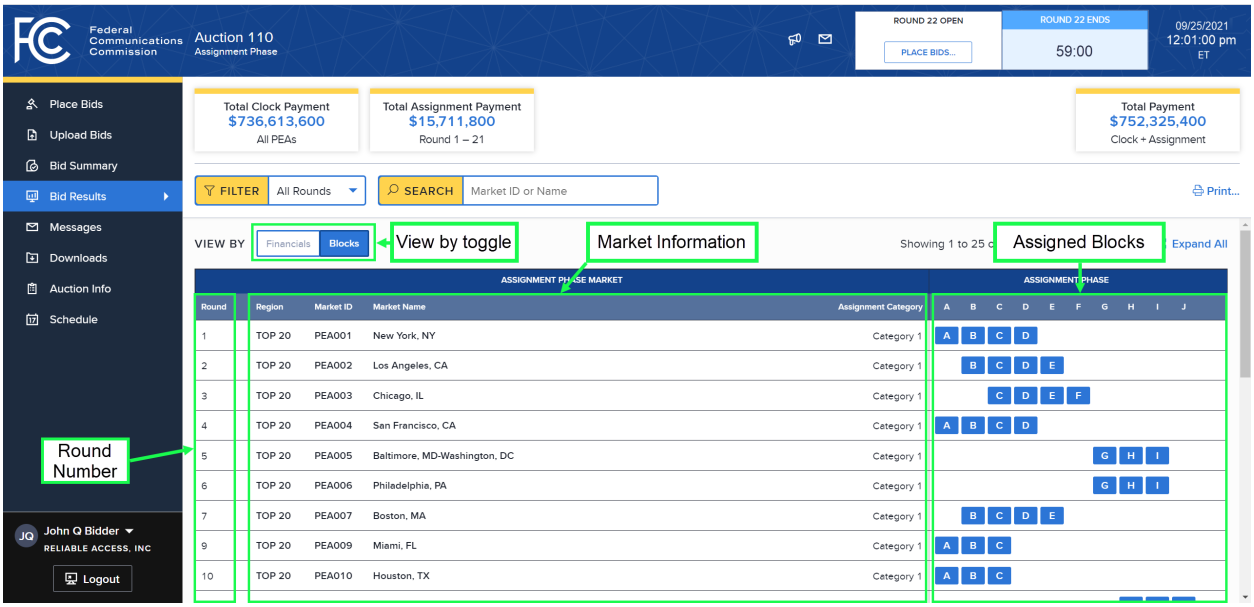
If the Financials view is selected, the Bid Results screen displays financial information about the clock phase and the assignment phase (see Figure 18). The sixth column provides the bidder's clock phase payment for the assignment phase market and category. The last four columns provide information about the assignment, assignment bid and payment, and total payment, which is the sum of the clock phase payment and the assignment payment for each assignment phase market and category.

Figure 18: Bid Results Financials View



If the Blocks view is selected, the final columns display which blocks you have been assigned for each assignment phase market, as shown in Figure 19 below.

Figure 19: Bid Results Block View



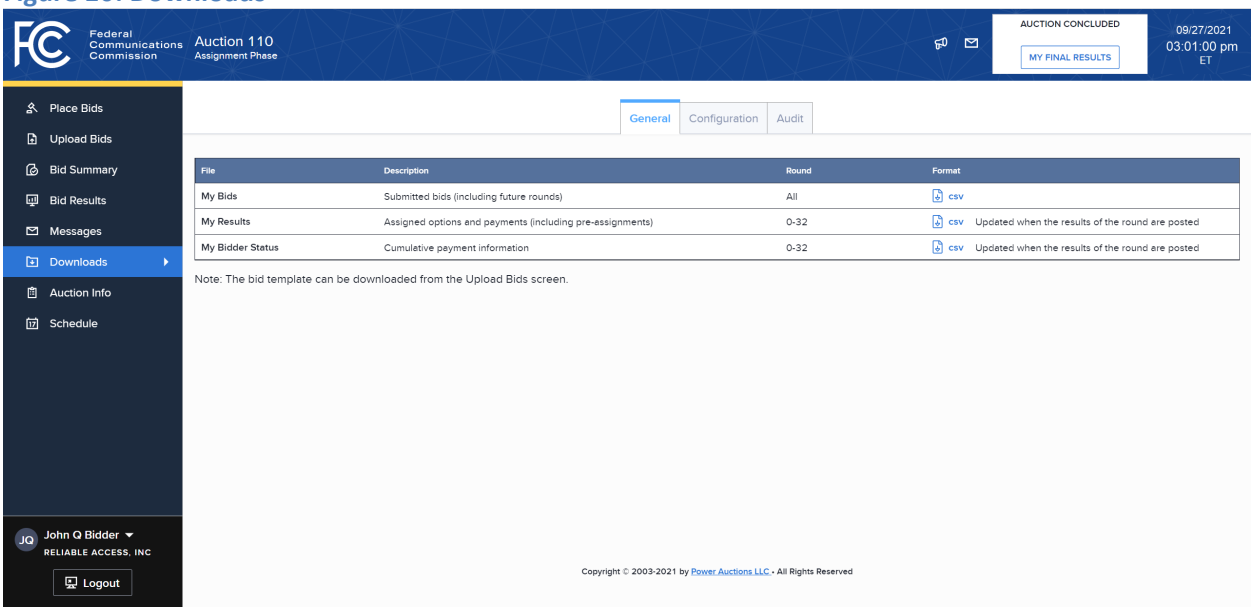
If the assignment phase market includes at least two PEAs, the stack icon is shown in the Market ID and Market Name fields for that assignment phase market, as shown in Figure 18 above. The number next to the stack icon in the market ID shows the number of PEAs that are part of this assignment phase market. You can expand the information for an assignment phase market with multiple PEAs by clicking the downward arrow next to the dollar amount in the Clock + Assignment Payment column (Financial view) or next to the assigned blocks (Blocks view), or anywhere else in that row. The expanded

information includes the market ID and market name for each PEA that is part of the assignment phase market. If the Financials view is selected, the clock phase payment for each PEA is also shown.

9.4. Downloadable Results

You can also download two files containing results from the Downloads screen (see Figure 20): My Results and My Bidder Status. Full details about the specifications for downloadable files may be found in the "Auction 110 Assignment Phase Bidding System File Formats" document located on the Auction 110 website in the Education section (available at www.fcc.gov/auction/110).

Figure 20: Downloads



9.4.1. My Results

The My Results file provides the bidder's assignment results, showing the winning assignments, including pre-assignments, and any associated assignment bid and payment for each assignment phase market (PEA or PEA group) and category that has been assigned so far in the assignment phase. The file is updated when the round results are posted. The information contained in the My Results file mirrors the round-by-round information contained on the bottom portion of the Bid Results screen when the Financials view is selected (described in Section 9.3). The file shows assignment and payment information for different assignment categories in separate rows. However, in the case of a PEA group, the file does not show the clock phase payment breakdown for each PEA as provided in the expandable table that can be viewed when clicking on the downward arrow next to the dollar amount in the Clock + Assignment Payment column on the Bid Results screen.

9.4.2. My Bidder Status

The My Bidder Status file contains the cumulative payment amounts for the bidder as of the end of each assignment round (once the round has been posted), and reflects the information displayed in the top

portion of the Bid Results screen (described in Section 9.2). The file includes cumulative data for past rounds as well as for the most recently posted round. When the results of a round are posted, an additional row of data is appended to the end of the file containing the new cumulative payment amounts. Therefore, it is possible to view cumulative results as of the point in time when a previous round was posted by viewing the data corresponding to that round.

Appendix 1: System Troubleshooting

Please refer to the Auction 110 Clock Phase Bidding System User Guide (available in the Education section of the Auction 110 website, www.fcc.gov/auction/110) for guidance on system troubleshooting. The following topics are covered:

Situation 1: Temporary connection issue

Situation 2: Page cannot be displayed error message on first access

Situation 3: Cookies must be enabled error message

Situation 4: JavaScript must be enabled error message

Situation 5: Page cannot be displayed error message when navigating to new screen

Situation 6: Page has expired error message when back button is clicked

Situation 7: Computer or web browser crashes

Situation 8: Certificate error message

Appendix 2: RSA SecurID® Token Information

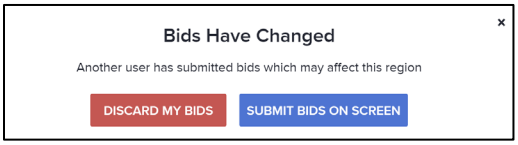
Please refer to the Auction 110 Clock Phase Bidding System User Guide (available in the Education section of the Auction 110 website, www.fcc.gov/auction/110) for information about RSA tokens, including the following topics:

1. **Number of RSA Tokens Issued and Extra RSA Tokens**
2. **Replacing Lost or Damaged RSA Tokens**
3. **Change of User (Authorized Bidder)**
4. **Forgotten PIN**

Appendix 3: Simultaneous Bidding on Behalf of the Same Bidder

As a general matter, **you should not allow more than one person to modify your bids at the same time** – doing so may potentially cause a conflict in data and may produce a bid or set of bids that you did not intend. Thus, you should make sure that you communicate with the Telephonic Bid Assistant or the other authorized bidders for your bidder during the bidding process. This appendix describes the feedback that is provided by the system on the Place Bids and the Upload Bids screen when two users submit bids or attempt to submit bids on behalf of the same bidder at approximately the same time.

Place Bids screen. If one user has successfully submitted bids, then other users for that bidder will see an orange bid entry badge BID CHANGED, and the REFRESH button becomes active. Clicking the REFRESH button refreshes the screen to show the bids submitted by the first user, overwriting any unsubmitted bids on your screen. If you do not click the REFRESH button and instead choose to submit the bids on your screen you will see the following pop up.



When clicking the DISCARD MY BIDS button, the screen refreshes to show the bids submitted by the first user. When clicking the SUBMIT BIDS ON SCREEN button, the bids of the second user are submitted.

Upload Bids screen. If a user uploads bids while another authorized individual's bid upload is already being processed by the system, the second bid upload will not go through and the user will get the red error message: "Bid update failed for *Region*. E700 Bids submitted by user *Authorized Bidder 1* are currently being processed.", where *Region* is "Top 20" or one of the REAGs that you are submitting bids for, and *Authorized Bidder 1* is the name of the user whose bid upload is being processed at this time.

Appendix 4: Bid Upload Errors

The table below lists all the bid upload error codes along with the corresponding error messages that are displayed. The text shown in *italics* provides examples, for purposes of this user guide, of what could actually be displayed.

Error Code	Error Message
E001	Your file does not have enough data in it.
E002	Your file exceeded 10 MB in size.
E003	The bid upload file must be a standard CSV file, encoded as an ASCII or UTF-8 file.
E004	Your file must be a csv file and must end in '.csv'.
E005	The first five fields in the header must be in this order: ROUND, REGION, CATEGORY, OPTION and ASSIGNMENT_ROUND_BID.
E014	Row is blank.
E015	Number of columns in row does not match number of columns in header.
E110	ROUND cannot be blank.
E111	Invalid ROUND format: *1.2*
E112	You cannot upload bids for a closed assignment round.
E113	Invalid ROUND number. You can only upload bids for current and future rounds.
E120	REGION cannot be blank.
E121	Invalid REGION *REAG7* for ROUND *23*.
E130	CATEGORY cannot be blank.
E131	Invalid CATEGORY *Cat2* for ROUND *21 REAG4*.
E140	OPTION cannot be blank.
E141	OPTION *A.B.D* is invalid.
E207	ASSIGNMENT_ROUND_BID cannot be blank.
E208	ASSIGNMENT_ROUND_BID has to be below maximum allowed price of $999,999,900.
E209	ASSIGNMENT_ROUND_BID has to be a multiple of $100.
E210	ASSIGNMENT_ROUND_BID *$15,000.50* is invalid.
E406	Missing bid for assignment phase market and option.
E407	OPTION is duplicate of OPTION in line *18*.
E408	You are not eligible to bid for assignment phase market and category.
E409	Round *23 REAG 2* Category *Cat1* has been auto-assigned to you and cannot be specified in the file.
E700	Processing a bidding request by user *Michael MacDonald*. Please try again later.