

Auction 108 Bidding System User Guide

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The Federal Communications Commission (the "Commission") will make available a web-based bidding system for Auction 108, the auction of geographic overlay licenses for unassigned spectrum in the 2.5 GHz (2496–2690 MHz) band. This document is the user guide for Auction 108.

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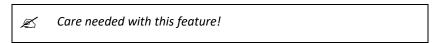
1. Introduction

This guide describes the features of the web-based FCC auction bidding system that bidders will use to bid in Auction 108. Additional information for this auction can be found on the FCC Auction 108 website: www.fcc.gov/auction/108.

1.1. Conventions

In this guide, screen names are Capitalized, internet addresses are highlighted in blue, links in the bidding system are <u>underlined</u>, and the following text represents a Button.

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



In this guide, the term "bidder" refers to an applicant that has been identified by the FCC as qualified to bid in Auction 108 based on review of its FCC Form 175 application and receipt of a timely upfront payment. The terms "user," "you," and "authorized bidder" refer interchangeably to an individual authorized bidder identified on a qualified bidder's Form 175 as authorized to access the bidding system and to submit bids on behalf of the qualified bidder.

Most of the examples in this guide are for "Reliable Access, Inc.", a bidder that has not claimed a bidding credit. Representative examples are also given for a bidder that has claimed a rural service provider bidding credit and for a bidder that has claimed a small business bidding credit.

In this guide, the terms "county" and "market", and "product" and "license" are used interchangeably.

1.2. Guide Structure

This guide is set out as follows:

- Section 2 provides an overview of Auction 108
- Section 3 describes the system requirements for accessing the bidding system and how to log in
- Section 4 explains how to navigate the bidding system and provides a summary of the screens available to bidders
- Section 5 states where basic information about the auction can be found
- Section 6 describes the auction schedule and communications between the bidder and the FCC
- Section 7 describes how to bid in a clock round
- Section 8 describes how to verify bids submitted in a clock round
- Section 9 describes how to access the results of a clock round
- Section 10 describes the downloads available in the bidding system for the auction

There are also four appendices:

- Appendix 1 provides troubleshooting tips for several different scenarios
- Appendix 2 provides additional information about RSA SecurID® tokens
- Appendix 3 provides a list of bid upload error codes
- Appendix 4 contains a glossary of terms

2. Overview of Auction 108

In Auction 108, bidders will bid for geographic overlay licenses for unassigned spectrum in the 2.5 GHz (2496–2690 MHz) band. The auction will include up to three channel blocks of spectrum—49.5 megahertz, 50.5 megahertz, and 17.5 megahertz blocks—in each county. The 49.5 megahertz block is designated as bidding category 1 (C1), the 50.5 megahertz block as bidding category 2 (C2), and the 17.5 megahertz block as bidding category 3 (C3).

Each category in a county includes at most one frequency-specific license. The combination of a county and a category is known as a product. In this clock auction, a "product" is a single license due to each product's supply being one. The clock phase will determine the licenses won by each bidder. As a result, there is no assignment phase in Auction 108.

Auction 108 will be conducted in a series of timed bidding rounds. During a "clock round" users can place bids for products. Each bid will specify a requested quantity (one or zero) and a price. Auction 108 allows bidders to submit proxy instructions by indicating a price above the current round's clock price at which the bidder wants to reduce its demand for a license from one to zero. If a proxy instruction has been submitted, the bidding system will automatically submit a proxy bid to maintain the bidder's demand for the license in every subsequent round as long as the clock price for the round is below the proxy instruction price. If the clock price is greater than or equal to the proxy instruction price, the bidding system will submit a bid on behalf of the bidder requesting to reduce the bidder's demand for that license to zero at the proxy instruction price.

In Round 1, a user uploads a file with bids for the licenses it demands at the opening price by indicating a quantity of one for each of those licenses. Additionally, a user is permitted to submit a proxy instruction for any license for which it submits a bid in the round.

In each round after Round 1, each license is associated with a range of prices. The lowest price in the range is the start-of-round price, and the highest price in the range is the clock price. For a given license, a user can either bid to maintain its demand from the previous round at the current round's clock price or bid to change its demand at a price associated with the round. Also, a bidder with processed demand for a license that wishes to maintain its demand at the round's clock price is allowed to submit a proxy instruction to reduce its demand for that license to zero at a price higher than the current round's clock price.

After a round ends, the bidding system processes the bids and posts the results. After bids are processed and results are posted, users can see their "processed demand" (one or zero), the aggregate demand, and the price for each license (the "posted price"). As long as there is aggregate demand greater than one for one or more licenses, the auction proceeds with another round, and users will see the clock prices for the next round. In addition, if a bidder bid to reduce demand to zero and the bid was not applied (e.g., because there was no excess demand at the bid price), then in future rounds the bidding system will generate a proxy instruction to reduce demand to zero at that bid price until the bid is successfully applied or the bidder removes the request to reduce demand to zero for this product.

If, after the bids are processed, there is no excess demand for any license, then the auction ends. Bidders will win the licenses they hold at the end of the final clock round. The final price for a license will equal the posted price for that license for the final clock round.

3. System Requirements and Access

This section explains the system requirements for accessing the bidding system, how to log in, and other matters related to access.

3.1. Minimum System Requirements

At the minimum, the following is required to access the bidding system:

- Microsoft Windows® 10, or Apple® Mac® OS X® 10.13 with at least 8 GB of memory
- A recent version of Google Chrome^{™ 1} or Microsoft Edge (Chromium).² The browser must be configured to accept cookies.³
- Access to the internet
- Excel 2013 or newer
- 1920 x 1080 screen resolution or higher⁴

Smartphones and tablets are not supported. The bidding system may run on different computer configurations, including browsers not listed above. It is the responsibility of the users to test any alternative configurations with the bidding system in advance of the auction—for example during the mock auction—and to ensure that they have access to one of the supported browsers should they experience problems. Any user attempting to access the bidding system with a computer configuration or device that does not meet the requirements listed above is solely responsible for any resulting failure to access the bidding system, failure to do so in a timely manner, or failure of the bidding system to process the user's attempted bidding or other actions (even if it appears that such actions were completed properly).

Users should not use web browsers containing third-party toolbars or other extensions. Third-party browser extensions may cause problems for users of interactive websites, including the auction bidding

installed, you can inspect the version number by clicking on the three dots in the upper right corner, it hen click on "Settings" and "About Microsoft Edge" (older versions may say "About this app"). For example, Version 92.0.902.55 is Microsoft Edge (Chromium), as it is at release 92.

Versions older than 44.18362 can cause some unexpected formatting, like rendering decimal values in numerical columns when there should be a whole number, or cutting off flash messages.

¹ Google and the Google logo are registered trademarks of Google Inc.

² Microsoft Edge (Chromium) is available for Windows and can be downloaded from the Microsoft website. Its logo looks like this: •• Older versions of Edge (known as Microsoft Edge Legacy) use a different logo: •• All Edge versions at release 79 or later are Microsoft Edge (Chromium). To determine which version of Edge you have

³ Appendix 1 explains how to check and/or reset settings to accept cookies.

 $^{^4}$ The bidding system has been optimized to display all the information without horizontal scrolling on 1920 x 1080 screens with medium font size. If all the information from the bidding system cannot fit on your display when your browser is maximized (taking up the entire screen), you can either zoom out using your internet browser or scroll right and left using the scroll bars. To adjust the zoom, hold down the control ("ctrl") key and use the "+" and "-" keys to zoom in and out.

system, and may make users' computers more vulnerable to hacker attacks. If in doubt, you should consult your internal information technology department in order to disable third-party browser extensions or, if necessary, obtain a clean installation of a supported web browser.

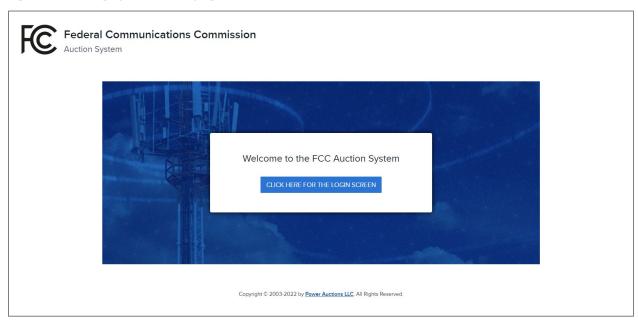
Users are discouraged from adding additional toolbars to their browsers, such as a toolbar for bookmarked pages. Additional toolbars may increase the likelihood that vertical scrolling is needed to see all fields on the screen.

To maximize protection against potential security vulnerabilities, users are advised to ensure the latest service pack (if applicable), security patches for their operating system, and the most recent version of Google Chrome and Microsoft Edge (Chromium) have been installed.

3.2. Logging In

Once the bidding system becomes available, you can log in at a URL provided only to qualified bidders in the registration materials. When available, a button to access the Login screen, as shown in Figure 1, will be visible. When the Login screen is not available, there will be a message to that effect on the screen, and the button to access the Login screen will not be visible.

Figure 1: Bidding system homepage



Click on the CLICK HERE FOR THE LOGIN SCREEN button to get to the Login screen.

This guide provides two sets of login instructions: Section 3.2.1 describes initial login procedures where an authorized bidder creates a personal identification number ("PIN") and logs in for the first time; and Section 3.2.2 describes the standard login procedure used after the PIN is created.

Each authorized bidder listed on the qualified bidder's Form 175 will need their CORES username (email address) and associated password to log into the first login screen for the auction bidding system. If the username and password are correct, the auction bidding system will then prompt the authorized bidder to enter their RSA credentials on a second login screen. The RSA credentials include the FCC-assigned

user ID (your FRN plus a series of letters), the token PIN and the tokencode. If the RSA credentials are correct, the authorized bidder will be logged into the auction bidding system.

Each CORES username (email address) will be assigned a specific User ID (FRN + letters) and a specific RSA SecurID® token (RSA token) for the auction. This RSA token generates a time-sensitive 6-digit tokencode that changes every 60 seconds. The User ID and RSA token should only be used by the authorized bidder to whom it was assigned. The bidding system logs all actions taken by a user based on the CORES username entered when logging in.

RSA tokens will be sent by overnight delivery to the contact person identified in the FCC Form 175 for each qualified bidder, and the contact person must distribute an RSA token to each of the specified authorized bidders. Each authorized bidder will need to set a private PIN for his or her token.

Figure 2: An RSA SecurID® token



Please note that each RSA token is tailored to a specific auction. Therefore, RSA tokens issued for other auctions or obtained from a source other than the FCC will not work for this auction.

After the conclusion of bidding in Auction 108, the Commission will send each bidder a pre-addressed, stamped envelope in which to return its RSA tokens.



Take care not to lose your RSA token! Replacing or reassigning an RSA token can be time-consuming, which in some cases could result in missing a bidding round and losing bidding eligibility.

3.2.1. First Time Login Procedures

To log in, you will enter your CORES username (email address, must be all lowercase) and CORES password. Once your password is verified, you will enter your RSA credentials (User ID, RSA PIN and RSA tokencode). Since this is the first time you are logging in, you must create an RSA PIN. Each authorized bidder for a qualified bidder will create an RSA PIN once—unless the authorized bidder gets a replacement RSA token (e.g., because an RSA token has been lost or broken). After the RSA PIN has been created, you must follow the standard login procedures.

You will need the following login credentials to access the bidding system for the first time:

First login screen:

Username: CORES username (email address, must be all lowercase)

Password: Your CORES Username password

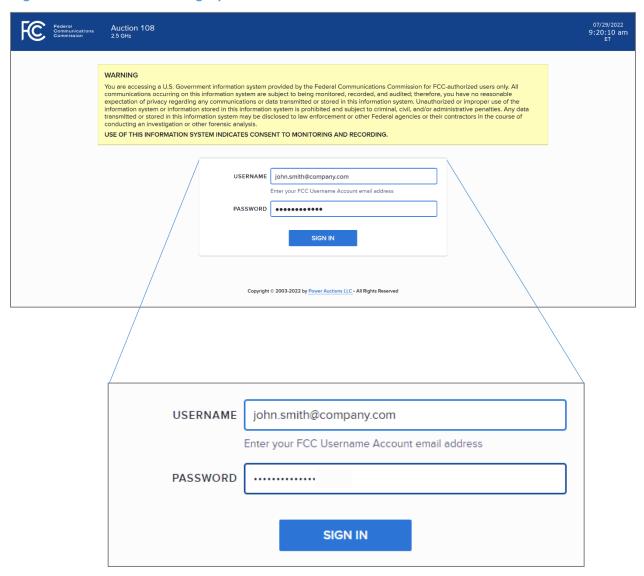
Second login screen:

• User ID: FCC-assigned ID (FRN + 3 upper-case letters)

• RSA tokencode: A six-digit code generated by the RSA SecurID® token

On the first login screen, type your CORES username (email address) and CORES password, as illustrated in Figure 3. You must use lowercase letters for your email address. Once you have entered both fields, click SIGN IN.

Figure 3: First screen of the login process

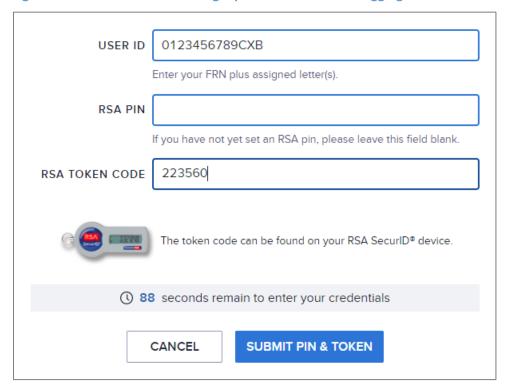


On the second login screen, type your 13-character User ID⁵ (FRN plus 3 uppercase letters) and the current tokencode on the individually assigned RSA token as shown in Figure 4. Leave the PIN field

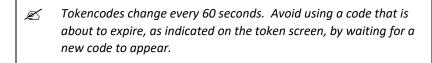
⁵ If your FRN has leading zeroes, this is part of your User ID.

blank. Then, click SUBMIT PIN & TOKEN. Note that you have a limited amount of time to enter the RSA information, as shown by the expiration time on the screen.

Figure 4: Second screen of the login process — first time logging in



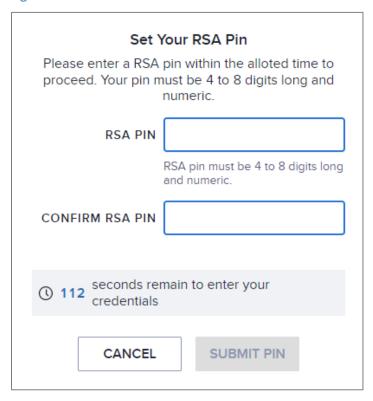
If you forget your CORES username password, you can contact the FCC Support Center at (877) 480-3201 option 1 (Mon-Fri 8:00 a.m. – 6:00 p.m. Eastern Time (ET)).



The RSA tokencode will be generated by your RSA SecurID® token and will not be the same as the code shown in Figure 4.

After you click SUBMIT PIN & TOKEN, the bidding system displays a screen to create a private PIN, as shown in Figure 5.

Figure 5: Set PIN screen

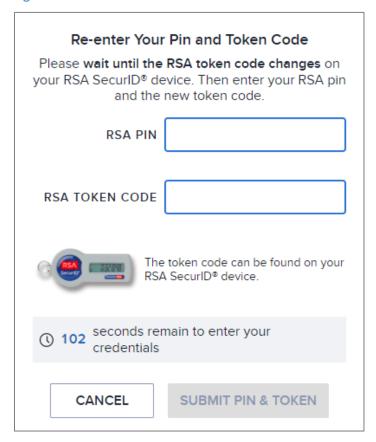


Type a 4 to 8-digit numeric PIN of your choice in the RSA PIN field. Enter it twice as requested to ensure accuracy. Then click SUBMIT PIN. Memorize this PIN! Note that you have a limited amount of time to set a PIN and confirm your credentials, as shown by the expiration time on the screen.

You will then be asked to enter your PIN and tokencode, as shown in Figure 6.

Type in the PIN you just created and a **new** tokencode. Make sure that the number on the RSA token's display has changed, type this new number into the tokencode field, then click SUBMIT PIN & TOKEN.

Figure 6: Confirm RSA credentials screen



After completing the setup procedure, you will be able to log in to the bidding system and see the navigation bar on the left-hand side. Thereafter, the standard login procedure applies.

3.2.2. Standard Login Procedure

To log in to the bidding system, you will need the following login credentials:

First login screen:

• Username: CORES username (your email address, must be all lowercase)

• Password: Your CORES Username password

Second login screen:

User ID: FCC-assigned ID (FRN + 3 upper-case letters)

RSA PIN: Numeric PIN created during the initial login (see Section 3.2.1)

• RSA tokencode: A six-digit code generated by the RSA SecurID® token

On the first login screen, type your CORES username (email address, all lowercase) and CORES password, as illustrated in Figure 3. You must use lowercase letters for your email address. Once you have entered credentials in both fields, click SIGN IN.

On the second login screen, type your 13-character User ID⁶ (FRN plus 3 uppercase letters), your RSA PIN, and the current tokencode on the individually assigned RSA token as shown in Figure 7. Then, click SUBMIT PIN & TOKEN. Note that you have a limited amount of time to enter the RSA information, as shown by the expiration time on the screen.

If you forget your CORES username password or your RSA PIN, you can contact the FCC Support Center at (877) 480-3201 option 1 (Mon-Fri 8:00 a.m. – 6:00 p.m. ET).

USER ID

O123456789CXB

Enter your FRN plus assigned letter(s).

RSA PIN

If you have not yet set an RSA pin, please leave this field blank.

RSA TOKEN CODE

355561

The token code can be found on your RSA SecurID® device.

① 90 seconds remain to enter your credentials

CANCEL

SUBMIT PIN & TOKEN

Figure 7: Second screen of the login process — standard login (PIN exists)

3.2.3. Login Errors

During an auction, the system keeps track of the success or failure of each login attempt. In case of incorrect entry of data into any of the four required fields during login, you will receive an error message with an error code. For assistance call the Auction Bidder Line at the number provided with your registration materials.

3.3. Multiple Users for the Same Qualified Bidder

It is possible for more than one authorized bidder for the same qualified bidder to log in and access the bidding system at the same time, each using his or her CORES username and RSA credentials. Any updates made by one authorized bidder will be displayed on the screen of any other user for the same

⁶ If your FRN has leading zeroes, this is part of your User ID.

bidder after the screen is refreshed. You can refresh your screen by either clicking the Refresh/Reload button in your browser or by simultaneously pressing the 'Ctrl' and 'R' keys on your keyboard.

In order to avoid a potential conflict in data that may produce a bid, or set of bids, that was not intended, the bidding system provides bidding control to only one authorized bidder at any given time. The first authorized bidder to log into the bidding system automatically gets bidding control and maintains bidding control until it is released or taken by another user.

3.4. Automatic and Manual Logout

A single user cannot be logged in to the bidding system using two computers (or two browser sessions on the same computer) at the same time.

If a user tries to use the same CORES username to access the bidding system from multiple computers or browser sessions, the bidding system will automatically log the user out from the first session and will display a logout notification. This is a protective feature for users because it allows a user to log in to the bidding system using a second computer if the first computer crashes before the user could log out of the system.

A user that is inactive for more than 30 minutes will be automatically logged out of the system and will need to log in again to access the site.

You may manually log out of the bidding system at any time using the Logout button, located at the bottom of the navigation bar on every screen, as shown in Figure 8. Logging out of the bidding system will not cause bids that were uploaded successfully to be lost.

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. The telephone number for the Auction Bidder Line is provided with your registration materials. In general, telephonic bidding will not be available for Auction 108 because it would not be feasible given the requirement to upload a file to submit bids. However, a telephonic bid assistant will be able to submit bids to maintain the bidder's previous processed demands at the round's clock prices—that is, submit "default bids." Bidders should be aware that submitting default bids, by a telephonic bid assistant or a bidder, will remove any proxy bids and proxy instructions for future rounds. See Section 7.4.2 below.

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

3.6. Additional Information

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

Appendix 2 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.

4. System Navigation and Overview

The bidding system provides bidding information on screens and in downloadable files. 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 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 3.4.⁷

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. An illustration of the navigation bar and common screen features is shown in Figure 8.

ROUND 1 STARTS ROUND 1 ANNOUNCED Warning 9:44:05 an 15:55 Message Mini You have bidding control RELEASE Round clock alerts dashboard time Bid Summary 150,000 bu 142,500 bu \$0 0 bu A Bid Results Eligibility Required Activity (95%) Requested Commitment ⑤ Prices UPLOAD & SUBMIT BIDS SUBMIT DEFAULT BIDS TEMPLATES → Downloads Prices Have Been Announced সি Schedule Review the Prices screen or download bid templates before the round Navigation Bar **Authorized Bidder Name** John Q. Bidder ▼ Name of Bidder Logout button

Figure 8: 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.

⁷ Users are advised to use the navigation features of the bidding system rather than using a browser's forward and back navigation functions, which may produce unpredictable results.

Table 1: Summary of screens reached from the navigation bar

Screen	Description
Place Bids	Allows the user to submit bids and proxy instructions during a round by uploading a bid file
Bid Summary	Displays a summary of all bids submitted on behalf of the bidder during a particular round
Bid Results	Displays the results of bid processing for the bidder in a given round for all products in which the bidder bid or had missing bids in the round
Prices	Indicates the prices in a given round for all products in all counties that the bidder selected on its Form 175
Messages	Allows the user to view announcements and messages from the FCC, and to send messages to the FCC
Downloads	Allows the user to download files about the bidder's bids and proxy instructions, and results
Auction Info	Displays information about all available products
Schedule	Shows the schedule for upcoming rounds

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 9 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 9 for an example). You can search for all products in a given state by typing the two-letter abbreviation for the state followed by a dash (e.g., "AL-" for Alabama). This will bring up any Market IDs that have "AL-".

If you are searching for a product by typing a market name that contains special characters such as "ñ" (e.g., Doña Ana), it is important to type those special characters correctly.

4.3.3. Pagination

When the number of relevant products exceeds 25, the information is split into multiple pages ("paginated") with up to 25 products per page, and a page selector is provided at the bottom of the screen (see Figure 9 for an example).

4.3.4. Print

Several screens include a print icon, which can be used to print the content of the screen. Multi-page printing is restricted to 500 products. You can use the filters provided on the screen to reduce the number of products shown. 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 data on the page.

4.3.5. Round Selector

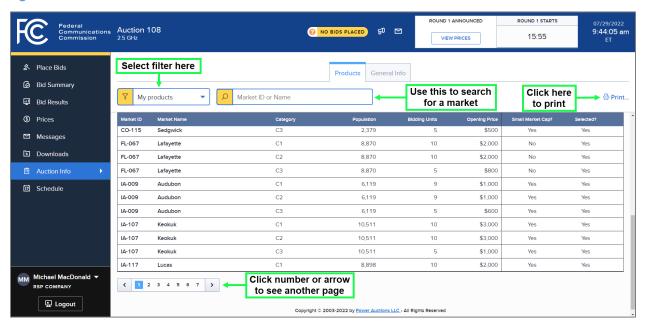
Several screens include a round selector which allows you to access the data for a previous round.

5. Viewing Product Information

The Auction Info screen contains two tabs: Products and General Info.

The Products tab provides static information about the products in the auction, including the bidding units and opening price for each product, as shown in Figure 9 below. This tab is paginated.

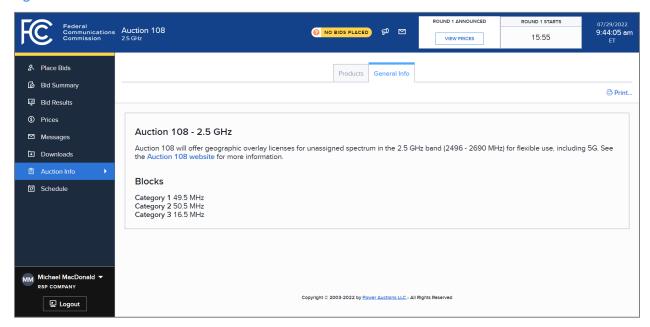
Figure 9: Products tab of Auction Info screen



There are two filter options on this screen: "All Products" and "My Products". "All Products" lists all available products in the auction. "My Products" lists only products from counties that the bidder selected on Form 175.

The General Info tab contains general information about the auction, as shown in Figure 10 below.

Figure 10: General Info tab of Auction Info screen



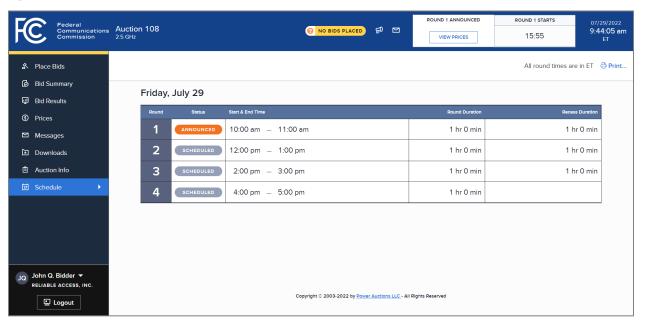
6. Schedule and Messages

6.1. Schedule screen

The Schedule screen shows the current schedule for upcoming rounds in Eastern Time (ET), as illustrated in Figure 11. The schedule shows the date, duration, start time and end time for each round, the duration of the recess, and the status for each round.

The FCC may adjust the number of rounds per day as the auction proceeds. Additional rounds will be displayed as the auction progresses. The schedule displayed in the example does not indicate the expected number of rounds in the auction; the Schedule screen will show the next several rounds assuming the auction continues for that duration or longer.





6.2. Messages: Announcements and Conversations

On the Messages screen you can see announcements made by the FCC. You can also communicate with the FCC through "conversations" by sending messages to and receiving responses from the FCC that are visible only to you and the other authorized bidders for the same qualified bidder. The Messages screen contains two tabs: Announcements and Conversations. Access this screen by clicking the <u>Messages</u> link

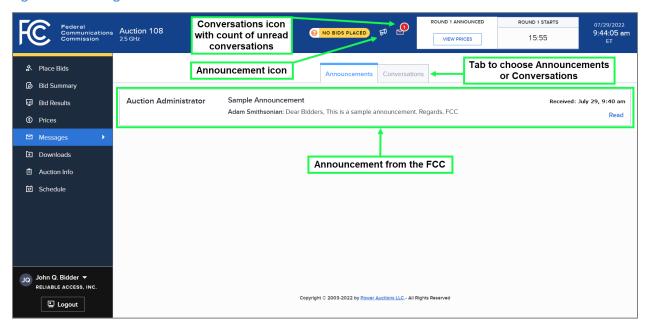
on the navigation bar or by clicking on the respective icon in the blue bar (for announcements or

for conversations). The Announcements screen is shown by default when you click on the Messages link, as in Figure 12 below.

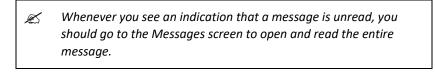
If you have any unread announcements or conversations, a count with the number of unread messages will appear in a red circle next to the announcement or conversation icon in the blue bar at the top of the screen, as shown in Figure 12 below.

To read announcements, click on the <u>Messages</u> link in the navigation bar or click on the Announcement icon in the blue bar. To send a message to the FCC or read a response from the FCC, click on the <u>Messages</u> link in the navigation bar and then choose the Conversations tab, or click on the Conversation icon in the blue bar. Once the Announcement or Conversations tab has opened, it will display the appropriate messages in reverse chronological order, showing the first line (or part of the first line) of each announcement or message. You must click on the <u>Read</u> link or the <u>Read/Reply</u> link to open and read an announcement or message in its entirety.

Figure 12: Messages screen



As shown in Figure 12 and Figure 16, if any message on the screen has not been read, the Announcements or Conversations icon displayed at the top of the Messages screen will indicate the number of unread announcements or messages. Any unread message has an orange "UNREAD" badge. After an unread announcement or conversation has been opened by clicking on the Read or Read/Reply link, the number next to the relevant icon will decrease accordingly. The number will not decrease until the Read or Read/Reply link has been clicked for the unread announcement or message.

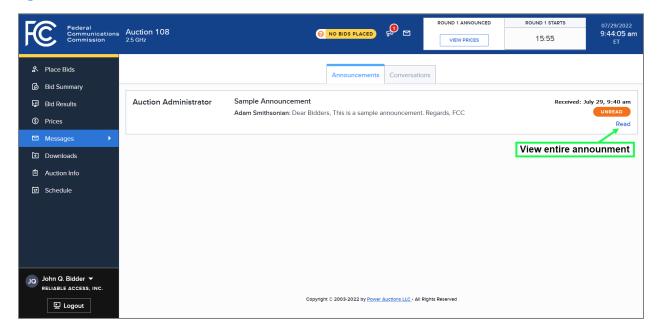


Announcements and conversations can be printed by clicking on the <u>Print...</u> icon located in the top right-hand corner of the screen.

6.2.1. Receiving and Reviewing Announcements

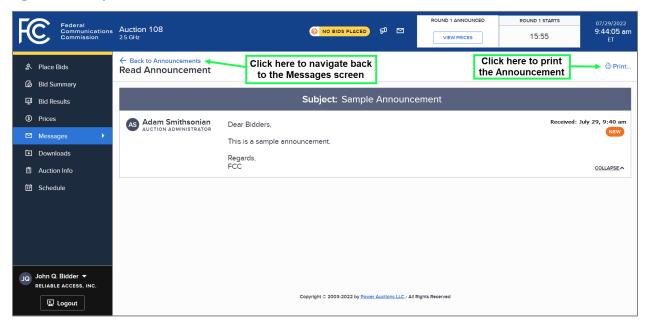
The FCC will send announcements to all bidders containing important bidder information such as changes in the number of rounds per day or the suspension of bidding due to unforeseen circumstances. The Messages screen will only show the first line or part of the first line of an announcement. As noted above, to view the entire text of an announcement, you must click on the Read link for the announcement you wish to read, as shown in Figure 13.

Figure 13: View entire announcement link



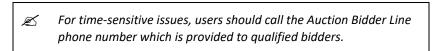
Clicking on the Read link loads the full text of the announcement as shown in Figure 14. To close the text of the announcement and return to the default Announcements tab on the Messages screen, click the \leftarrow Back to Announcements link.

Figure 14: An open announcement



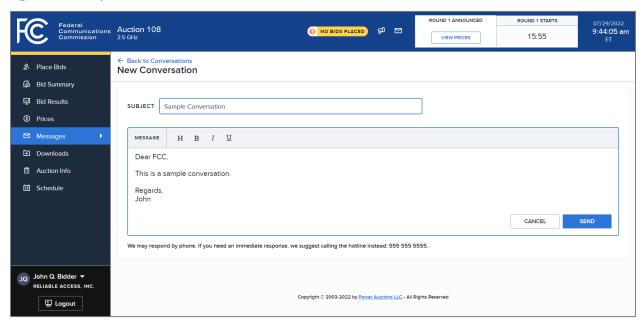
6.2.2. Conversations with the FCC

You can communicate with the FCC through the bidding system. A message from a user is associated with the bidder's FRN and the authorized bidder who sent the message. Only authorized bidders for a bidder can see such messages.



To compose a new message to the FCC, choose the Conversations tab and click on the NEW CONVERSATION button in the upper right corner of the Conversations screen (shown in Figure 16). This will open a new message text box as shown in Figure 15 below. Next, enter the subject and content of the message in the relevant fields. Click SEND to send the message. To cancel an unsent message, click on the CANCEL button.

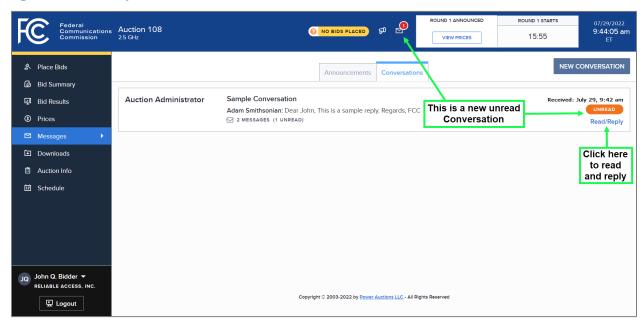
Figure 15: Compose a new conversation



A sent conversation will appear as a new conversation in a box on the main screen of the Conversations tab of the Messages screen, as seen in Figure 16. The FCC may reply by sending an electronic message or by calling the contact person on the phone. If there is an electronic reply from the FCC, the reply will be added to that conversation.

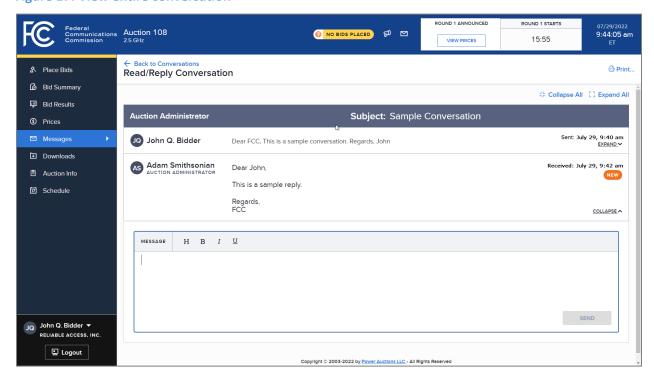
As with announcements, new conversations are indicated by a count next to the Conversations icon, and there is an orange "UNREAD" badge on the right side of the conversation box. All conversations are listed on the Conversations tab. For a given conversation, only the most recent message is shown, as illustrated in Figure 16. To view the complete message and all messages in a conversation, click on the Read/Reply link for that conversation.

Figure 16: View response to a conversation



Clicking on the link to view an entire conversation opens the full conversation on the screen, as shown in Figure 17. If you want to send a reply, type the message in the open box and click $\overline{\text{SEND}}$ to send it to the FCC. Click on the \leftarrow Back to Conversations link to return to the Conversations tab of the Messages screen.

Figure 17: View entire conversation



7. Bidding

Users conduct all bidding activities through the Place Bids screen, which is accessed through a link on the navigation bar on the left.

This section describes the layout of the Place Bids screen and provides instructions for preparing a bid file, uploading it, and resolving any upload errors. It also describes how to submit bids to maintain the bidder's demand from the previous round at the current round's clock prices, an option that is available for rounds after Round 1.

This section describes how, in addition to placing a bid for a license, a bidder can submit a proxy instruction to specify a price above the current round's clock price at which the bidder no longer wants to bid for the license. If a proxy instruction has been submitted, the bidding system will automatically submit a proxy bid to maintain the bidder's demand for the license in every subsequent round as long as the clock price for the round is less than the proxy instruction price. In the first round in which the clock price is greater than or equal to the proxy instruction price, the bidding system will submit a proxy bid on behalf of the bidder to reduce the bidder's demand for that license to zero at the proxy instruction price.

7.1. Layout of the Place Bids Screen

The layout of the Place Bids screen is illustrated in Figure 18 below.

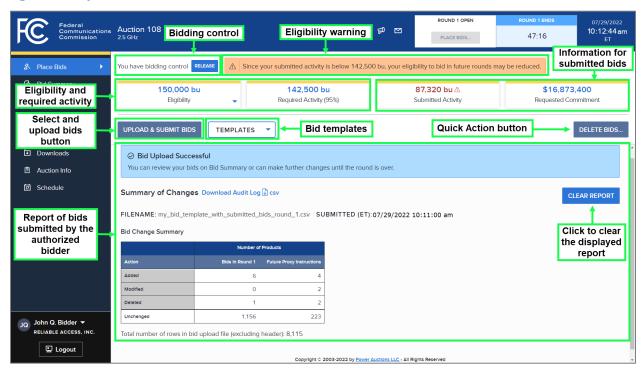


Figure 18: Layout of the Place Bids screen

The top left side of the screen indicates whether the user has bidding control for the company. Only one user can have bidding control for the company at any given time. The user who has bidding control can submit, change, or delete bids during an open round. A user without bidding control can view bid changes submitted by the user with bidding control and can request bidding control by clicking the TAKE OVER BIDDING button which appears on the Place Bids screen for users without bidding control.

Below the bidder's eligibility and required activity metrics, the screen provides access to bid templates that the user can download to prepare its bid file. Next to the templates pull-down is a button to select and upload bid files. The top right side of the screen has a "quick action" button to delete bids.

The DELETE BIDS... button is active only if there are submitted bids for the bidder in the round and if the user has bidding control.

The bottom of the screen provides a report after each successful or unsuccessful bid upload and after each "quick action" that is performed by the user. The report that appears on the bottom of the screen provides the status of the last action by any authorized bidder (including information about the bid-related actions of other authorized bidders) for the company. If the user successfully submits bids (either via an upload or using the SUBMIT DEFAULT BIDS button), reverts bids using the REVERT BIDS... button, or deletes bids using the DELETE BIDS... button, then the screen shows a summary of changes for bids in the round and proxy instructions for future rounds, and a link to a downloadable audit log file. The screen also shows a report if a user's upload is unsuccessful due to errors in the bid file and provides a link to a downloadable file indicating the bidding errors.

If the bidding system is processing a bid upload or a "quick action," entered either by this user or by another authorized bidder of the same company, then the Bid Entry badge appears at the top left of the screen and reads "SUBMITTING BIDS".

The top of the screen shows the bidder's eligibility and required activity for the round along with the bidder's submitted activity and requested commitment for the bids submitted so far in the round by any of the bidder's authorized users. The bidder's contingent bidding limit can be viewed by clicking a triangle beneath the eligibility information. Before any bids have been submitted for the round and if there are no proxy bids coming into the round, the submitted activity will be 0 bidding units (bu) and the requested commitment will be \$0. The submitted activity and the requested commitment are updated every time that bids are successfully submitted or deleted. If the submitted activity is less than the required activity, a warning is displayed and the submitted activity is shown in red with a caution icon (a triangle containing an exclamation mark), as shown in Figure 18.



All authorized bidders for the same company will see the same submitted activity and requested commitment values on the Place Bids screen. This information will be updated every time bids are submitted on behalf of the company.

If the bidder has claimed eligibility for a bidding credit discount, the bidder's requested net commitment is shown on the screen instead of the requested commitment. Details regarding the bidding credit

discount caps can be viewed by clicking a triangle beneath the requested net commitment information. See Section 7.5 for more information.

7.2. Available Bid Templates

A bidder's bid templates for a round are available as soon as the clock prices for the round have been announced (shortly after the results of the previous round have been posted) and remain available during the round. Although bids cannot be submitted before the round starts, the bid templates are available so that users have more time to prepare their bids.

The first six columns of a bid template are MARKET, CATEGORY, QUANTITY, PRICE, BID_TYPE, and SWITCH_TO_CATEGORY. The headings for these columns are in ALL CAPS to remind you that they are mandatory columns that must be included within the file. A bid template also includes other columns with information related to the products and/or your bids and results, but these are provided for convenience only, are not used by the bidding system, and can be excluded. The headings for these additional, information-only columns are in lower case.

Bid templates can be found on the Place Bids screen in the "TEMPLATES" pull-down (see Figure 18). The following table summarizes the available bid templates.

Table 2: Summary of available bid templates

Bid Template	Description	Available for
Submitted Bids	Includes all products in counties that the bidder selected on its Form 175 with the quantities and prices bid, if any, along with any proxy instructions.	All Rounds
Default Bids	Includes all products in counties that the bidder selected on its Form 175. For products for which the bidder has processed demand, the QUANTITY, PRICE, and BID_TYPE columns are filled in so that, if the user uploads this template, the bids will maintain the bidder's previous round processed demands at this round's clock prices.	Rounds after Round 1
Default Bids and Proxies	Includes all products in counties that the bidder selected on its Form 175. For products for which the bidder has processed demand and no proxy bid, the QUANTITY, PRICE, and BID_TYPE columns are filled in so that, if the user uploads this template, the bids will maintain the bidder's previous round processed demands at this round's clock prices. For products that have a proxy bid, the QUANTITY, PRICE, and BID_TYPE columns are filled in with the corresponding quantities and prices for the current round. A separate line is filled in with the proxy instructions for future rounds, if any, so that, if the user uploads this template, the bidder's proxy bids and proxy instructions for any future rounds will remain in effect.	Rounds after Round 1 when the bidder has proxy bids coming into the round
My Markets	Includes all products in counties that the bidder selected on its Form 175.	All Rounds

Full details about the specifications of the bid templates and the requirements can be found in the Auction 108 file formats document located on the Auction 108 website in the Education section (available at www.fcc.gov/auction/108).

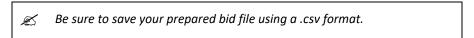
7.3. Bidding in Round 1

7.3.1. Preparing a Bid File for Round 1

In Round 1 of Auction 108, you or another authorized user for the bidder must successfully upload a bid file indicating, for each product for which you wish to bid, a quantity of 1 at the opening price. Additionally, if you wish to add a proxy instruction for a product for which you specified your initial demand, you can enter a quantity of 0 at a valid price⁸ above the opening price on a separate row in the bid file for that product.

You will only be able to bid for products in counties that were selected on the bidder's Form 175. A bidder that fails to have any bids placed on its behalf in Round 1 will have its eligibility reduced to zero and will not be able to bid for the remainder of the auction.

You can prepare your bid file by using one of the templates that are available on the Place Bids screen or by creating a .csv file that is formatted according to the file requirements. ⁹ The bidding system treats bids prepared using a custom file the same way as it treats bids prepared using one of the available bid templates.



Make sure you save your bid upload file in a known place on your computer before you upload it. *The most common user mistake is not to save your file before you upload it.*

⁸ Prices above \$100,000 must be a multiple of \$1,000; prices below \$100,000 but above \$10,000 must be a multiple of \$100; and prices below \$10,000 must be a multiple of \$10.

⁹ The bid file must be a comma-separated value file and must contain ".csv" as its extension (e.g., "myuploadfile.csv"). This csv file must be encoded as ASCII, UTF-8, or UTF-8 BOM. The bid template files use UTF-8 BOM encoding. Contact your IT department if you have any questions on encoding.



Please see Section 3.1 for supported browsers and versions of Excel. Older versions may require additional measures such as the ones described below.

In some older browsers, the browser may use a temporary folder to store your downloaded file. This is especially true if you click "Open" when the file is first downloaded instead of "Save". Files stored in temporary folders are difficult to find on the computer. If you are using an older browser, make sure to save the file in a known location before you modify it, and then resave it before you upload it.

If you are using an older version of Excel (e.g., Office 2010), you should save your template using "Save as" instead of "Save". You may need to select "CSV (Comma Delimited (*.csv))" as the "Save as type".

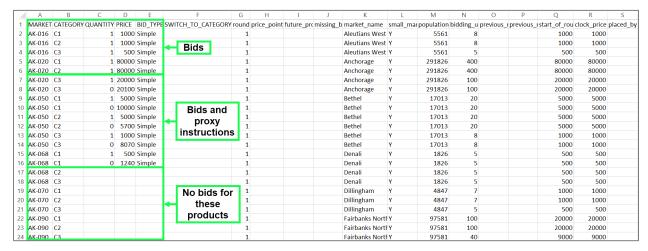
Otherwise, this older version of Excel may end up saving the file as a ".txt" file.

The bid file must contain a header row and the first six headers must be: MARKET, CATEGORY, QUANTITY, PRICE, BID_TYPE, SWITCH_TO_CATEGORY. These first six columns must be in the specified order. Any additional columns will be ignored by the bidding system.

For each product for which you wish to bid, the Market ID must be in the MARKET column, the category (i.e., "C1", "C2", or "C3") must be in the CATEGORY column, and you must include valid entries for the QUANTITY column, the PRICE column (i.e., the price of your bid or proxy instruction), the BID_TYPE column (i.e., simple or switch), and the SWITCH_TO_CATEGORY column (which should be left blank in Round 1). For a Round 1 bid, the QUANTITY must be 1, the PRICE must be the opening price, and the BID_TYPE must be "Simple". For a proxy instruction entered in Round 1, the QUANTITY must be 0, the PRICE can be any valid price above the opening price, and the BID_TYPE must be "Simple". You can only include one bid and one proxy instruction per product in the file, indicating that the bidder demands the product at the opening price and wishes to reduce its demand for the product to 0 at the proxy instruction price.

If you do not want to bid for a product that is included in your template, either leave the QUANTITY, PRICE, BID_TYPE, and SWITCH_TO_CATEGORY fields empty (as illustrated in Figure 19 below), or delete the entire row from the file. Once you have submitted a bid for a product, you can delete it following the instructions in Section 7.3.3.

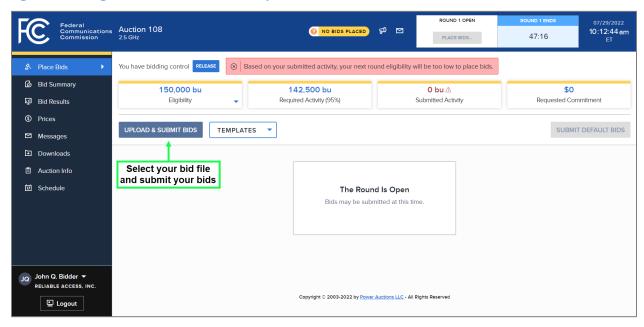
Figure 19: The My Markets template for Round 1 with bids



7.3.2. Uploading a Bid File

You can upload a bid file while the bidding round is open via the UPLOAD & SUBMIT BIDS button on the Place Bids screen. To upload a bid file, click the UPLOAD & SUBMIT BIDS button. This will allow you to search your directories for the appropriate file. Once you have selected the appropriate bid file, click the OPEN button to upload your bids. This is illustrated in Figure 20 below.

Figure 20: Using the Place Bids screen to upload a bid file



When bids are successfully uploaded, the Place Bids screen will show a message at the top of the report section indicating that your bid upload was successful, and a summary of the bids will be provided below the message (see Figure 18). This summary, labeled "Bid Change Summary", shows the number of bids and proxy instructions that were added, modified, deleted, and unchanged since the last successful bid

submission for the bidder for this round. As shown on Figure 18, the report field also provides a downloadable audit log file that includes all bidding actions for the bidder in the round.

In Round 1, until at least one bid file is successfully submitted, the bidding system will display a "No Bids Placed" badge. This badge is removed as soon as a bid file has been successfully submitted.

7.3.2.1. Bid Upload Errors

If a bid upload file contains errors that prevent the bids from being submitted successfully, the Place 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 21. The bidding system will list up to ten errors in the report field, with the associated error codes. In addition, there is a <u>Download Report Details</u> link to a file containing the list of errors, capped at 50, along with explanations. See Appendix 3 for a full list of the possible error codes and an example of each.

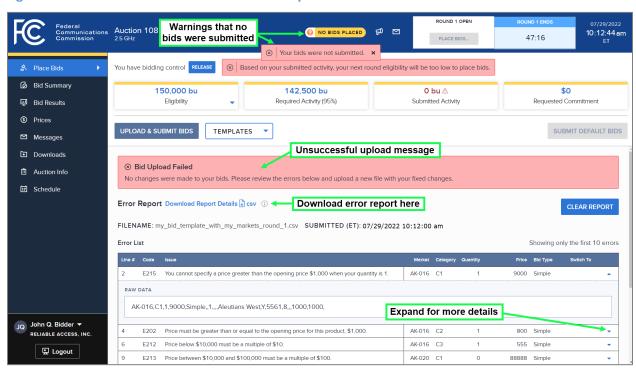


Figure 21: Place Bids screen after unsuccessful upload

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 six 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 bidding system will check the new file and report any further errors.

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

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.



If your bid upload is unsuccessful, be sure to correct the errors in the bid file and submit your bids before the round ends.

7.3.3. Adding, Changing, and Deleting Bids for Round 1

As long as Round 1 is open, you can add bids, change the proxy instructions that have been submitted, or delete the submitted bids by uploading a modified bid file. You can prepare your bid file using the Submitted Bids template (which includes all submitted bids for the bidder) or by creating a correctly formatted .csv file.

To add a bid for a product for which there is no submitted bid, include the product in your bid file, specify the quantity of 1 in the QUANTITY column, enter the opening price in the PRICE column, and enter "Simple" in the BID_TYPE column. To add a proxy instruction for a product for which there is a Round 1 bid, add a separate row for the product in your bid file, specify the quantity of 0 in the QUANTITY column, enter a valid price above the opening price in the PRICE column, and enter "Simple" in the BID_TYPE column.

To change a proxy instruction that has already been submitted, include that product in the bid file and ensure the QUANTITY is kept as 0 and enter the desired valid price in the PRICE column. Note that, in Round 1, you cannot submit a proxy instruction for a product if you do not also submit a bid for that product at the opening price. To delete a proxy instruction and keep the bid that has already been submitted for Round 1, delete the row that contains the proxy instruction and upload the bid file.

If you wish to delete a bid for a given product that you previously submitted during the round, include that product in the modified bid file, specify "Delete", "delete" or "DELETE" in the BID_TYPE column for that product and ensure that the QUANTITY, PRICE, and SWITCH_TO_CATEGORY columns are null (blank). When deleting a bid for a given product, include only one row for that product in the bid file, even if you previously submitted a proxy instruction for that product. Therefore, if you are using the Submitted Bids template to prepare your bids and you wish to delete an existing bid for a given product with a proxy instruction, you will need to remove one of the rows for this product in addition to following the steps above. For example, if you have already submitted a bid for the C2 product in AK-016, and a bid and a proxy instruction for the C1 product in AK-020, you can delete those bids by uploading the file illustrated in Figure 22 below.

Figure 22: Deleting existing bids for some products





Each time you upload a new bid file, the bid information in the modified bid file for a product replaces any bid information in the file previously submitted during the round. Therefore, if you add a bid for a product that did not have a bid in the previously submitted file, be sure to include all your bids in the new bid file, not just the ones you are adding.

If you decide to delete a bid for a product for which you bid in the previously submitted file, you must include that product in the modified file, indicating "Delete" for the bid type and leaving the other bidding fields blank.

Another way to change the bids is to delete all the bids and proxy instructions that have already been submitted for the bidder in the round by clicking on the DELETE BIDS... button and then upload a new bid file. Clicking on the DELETE BIDS... button will delete ALL bids and proxy instructions for the round for your qualified bidder, including bids and proxy instructions placed by other authorized bidders for your bidder.

7.4. Bidding in a Round after Round 1

For rounds after Round 1, you can submit your bids by uploading a bid file, as in Round 1. Additionally, if you do not currently have any bids submitted (including any proxy bids placed by the bidding system at the start of the round), the bidding system will give you the option of submitting "default bids" during a bidding round (see Section 7.4.2), and, if you had proxy bids placed by the bidding system at the start of the round and subsequently modified these bids, you will also have the option to revert your bids to your bids at the start of the round (see Section 7.4.3).

The bids you submit successfully in Round 1 will determine your Round 1 processed demands. In Round 2 and in every subsequent round, the bidding system expects you to indicate whether you are willing to maintain your processed demand for a product (i.e., the demand after processing the previous round's bids) at the new round's clock price, or whether you want to reduce that demand at a price associated with the current round. This requirement can be met by proxy bids or by bidding in the round. If you are willing to maintain the processed demand for a product at the new round's clock price, you may also want to add a proxy instruction telling the bidding system to reduce demand for that product to 0 at a price higher than the current round's clock price. A bidder may add bids for products it did not bid for previously (eligibility permitting). For counties with categories C1 and C2, a bidder may bid to switch its demand from one category to the other.

If you have proxy instructions coming into the current round, the bidding system will automatically submit proxy bids based on these proxy instructions when the round is announced and will preserve the proxy instructions that do not expire this round. Once the round opens, you can optionally modify these proxy bids and proxy instructions by uploading a new bid file.

7.4.1. Preparing and Uploading a Bid File for a Round after Round 1

You can prepare your bid file by using any of the templates available on the Place Bids screen or by creating a .csv file formatted according to the file requirements. The bidding system treats bids prepared using a custom file the same way as it treats bids prepared using one of the available bid templates.

As for Round 1 bids, the bid file must contain a header row and the first six headers must be: MARKET, CATEGORY, QUANTITY, PRICE, BID_TYPE, and SWITCH_TO_CATEGORY. For each product for which you wish to bid, the market ID must be in the MARKET column, the product category must be in the CATEGORY column, and you must include valid entries for the remaining columns.

The bid file must include "Simple", "Switch", or "Delete" (not case sensitive) in the BID_TYPE column. Simple bids are used to increase, decrease, or maintain demand for a given product. Switch bids allow you to switch demand across categories C1 and C2 products in the same market. ¹⁰ The SWITCH_TO_CATEGORY column should contain the category of the product you wish to switch to if you are entering a switch bid and should be left blank otherwise. Entering "Delete" in the BID_TYPE column indicates that you wish to remove bids for products for which you have submitted bids during the round but do not have processed demand from the previous round.

The QUANTITY can be 0 or 1. If a bidder has processed demand of 1 for the product, a bid to maintain a quantity of 1 must be at the clock price. A bid for a quantity different than the bidder's processed demand can be at a valid price greater than or equal to the start-of-round price and less than or equal to the clock price. A bid for a quantity of 0 can only be used for a product for which the bidder has processed demand.

For a round after Round 1, for a product for which the bidder has processed demand and is willing to maintain its demand at the current round's clock price, the bidder may submit a proxy instruction to reduce its demand to 0 at a price greater than the current round's clock price. In this case, the bidder can either include one row for the product in the bid file indicating a quantity of 0 and the proxy instruction price, or the bidder can include two rows: one for a bid to maintain demand of 1 at the product's current clock price and another for a proxy instruction indicating the price at which the bidder wants to reduce its quantity to 0. Proxy instructions cannot be specified for bids to increase demand nor for switch bids.

Figure 23 provides an example of a bid file with bids to maintain demand and proxy instructions for C2 in AK-020 and C1 in AK-050. Note that AK-020-C2 has one row for a bid to maintain demand of 1 at the clock price of \$88,000 and another row for a proxy instruction to reduce demand to 0 at the price of \$96,700, and AK-050-C1 has only one row for a proxy instruction to reduce demand to 0 at the price of \$10,000. Bids for both products are valid and after uploading this bids file, the bidding system will place bids to maintain demand and proxy instructions for both AK-020-C2 and AK-050-C1. Additionally, in this example, the bid file in Figure 23 contains a bid to reduce demand to 0 at price \$87,500 for AK-020-C1 and a bid to increase demand to 1 at \$5,200 for AK-050-C2.

-

¹⁰ A switch bid cannot involve a C3 license.

Figure 23: Bid file with simple bids, maintain demand and proxy instructions for products

	Α	В	С	D	Е	F	G	Н	T.	J	K	L	M	N	0	Р	Q	R	S
1	MARKET	CATEGORY	QUANTIT	Y PRICE	BID_TYPE	SWITCH_	Tround	price_poir	future_pro	missing_b	market_r	small_m	nai populatioi	bidding_u	previous_i	previous_	start_of_round_price	clock_price	placed_by
2	AK-016	C1					2				Aleutians	Y	5561	8	10		1000	1100	
3	AK-020	C1	(87500	Simple		2				Anchorag	€Y	291826	400	23	1	80000	88000	
4	AK-020	C2	1	1 88000	Simple		2				Anchorag	ŧΥ	291826	400	8	1	80000	88000	
5	AK-020	C2	(96700	Simple		2				Anchorag	εY	291826	400	8	1	80000	88000	
6	AK-050	C1	(10000	Simple		2				Bethel	Υ	17013	20	6	1	5000	5500	
7	AK-050	C2	1	5200	Simple		2				Bethel	Υ	17013	20	2		5000	5500	
8	AK-050	C3					2				Bethel	Υ	17013	8	3		1000	1100	

If you have processed demand for a product, you must list the product in your bid file and complete the required columns. That is, you must specify your intentions for this product for this round. For rounds after Round 1, the bidding system will display a "Missing Bids" badge if bids have not yet been placed for all products for which the bidder has processed demand. This badge is removed as soon as bids are placed for all products with processed demand. If you leave out a product with processed demand from your upload file, you will receive an error message upon upload in addition to the "Missing Bids" badge, and your bids will not be submitted. If, by the time the round ends, you have not placed bids for products for which you have processed demand, and there are no proxy bids for these products, then during bid processing the bidding system will place bids on your behalf for these products at the start-of-round price for a quantity of zero. (See Section 4.1 of the Auction 108 Technical Guide for details).

If you do not have processed demand for a product, did not bid for the product in this round, and do not enter values for the third, fourth, and fifth columns (QUANTITY, PRICE, and BID_TYPE) of the bid file, then the bidding system assumes that you do not want to bid for the product.¹²

If you wish to switch demand across categories C1 and C2 in the same market, you must first delete the entire row corresponding to the category that you want to switch to, since all of the bid information will be contained in the row for the "switch from" product. In the row for the category you are switching out of (the "switch from" product), enter the quantity of 0 and the price at which you would like the switch to occur. The bid type must be "Switch", and the SWITCH_TO_CATEGORY column must contain the category that you are switching to.

Figure 24 shows the same bid file before and after it has been altered to enter a switch bid. The first image shows the bidder's Default Bids template for the round. In this example, the bidder has processed demand of 1 for C2 in AK-180, and does not have processed demand for C1 in AK-180. The second image shows the bid file with a switch bid. The bidding system will interpret this switch bid as a request to switch demand from C2 to C1 in AK-180 when the price of AK-180-C2 reaches \$2,170.

Figure 24: Switch bids

A B C D E F G H I J K L M N O P Q R S

1 MARKET CATEGORY QUANTITY PRICE BID_TYPE SWITCH_TO_CATEGORY round price_poir future_prcmissing_b market_name small_mar population bidding_u previous_i previous_i previous_i start_of_rclock_price placed_by Nome Y 9492 10 13 2000 2200

2 AK-180 C2 1 2200 Simple 2 1 N Nome Y 9492 10 12 1 2000 2200

4 AK-180 C3 9492 5 13 9900 990

¹¹ If you wish to stop bidding for a product as of the current round, enter a quantity of 0 and a price in the current round's price range (which can be the start-of-round price).

¹² If you have submitted a bid in the current round for a new product (you do not have processed demand for the product) but wish to remove that bid, you must follow the process to "delete" the bid in a subsequent upload. See Section 7.4.3.

	4	Α	В	С	D	Е	F	G	Н	1	J	K	L	М	N	0	Р	Q	R	S
1	N	ARKET	CATEGORY	QUANTITY	PRICE	BID_TYPE	SWITCH_TO_CATEGORY	round	price_poir	future_pr	cmissing_b	market_name	small_ma	population	bidding_u	previous_	previous_i	start_of_r	clock_price place	ced_by
2	Α	K-180	C2	0	2170	Switch	C1	2	1	N		Nome	Y	9492	10	12	1	2000	2200	
3	Α	K-180	C3					2				Nome	Υ	9492	5	13		900	990	

The process to upload a bid file for a round after Round 1 is the same as for Round 1 (see Section 7.3.2). After you have successfully uploaded bids, the bidding system will include those bids in the Submitted Bids template for the round.

7.4.2. Submitting Default Bids

For a round after Round 1, if you wish to maintain demand at the current round's clock prices for all products for which the bidder has processed demand and you do not have any proxy bids coming into the round, you can submit those bids simply by clicking on the SUBMIT DEFAULT BIDS button.

The SUBMIT DEFAULT BIDS button is available if there are no submitted bids for the bidder for the round. Alternatively, you can download the Default Bids template and upload those bids to the bidding system. In the Default Bids template, the QUANTITY column contains the bidder's processed demand (if any) and the PRICE column contains the clock price of the current round. All bids in the Default Bids template are Simple bids. Thus, by uploading the Default Bids template, you are submitting bids to maintain the bidder's processed demands at this round's clock prices. Note that the Default Bids template does not include any proxy bids or proxy instructions. Thus, by uploading the Default Bids template, a bidder with proxy bids coming into the round will not preserve its proxy bids or proxy instructions.

If the bidder has proxy bids coming into the round, you can download, save, and then upload the Default Bids and Proxies template. By uploading the Default Bids and Proxies template, you are submitting bids to maintain the bidder's processed demands at this round's clock prices for all products without proxy bids, and proxy bids and proxy instructions for all products with proxy bids coming into the round. Unlike the Default Bids template, uploading the Default Bids and Proxies template will preserve your proxy instructions.

7.4.3. Modifying Bids for a Round after Round 1

While the round is still open, you can add, change, revert, and delete bids that have been submitted for the bidder in that round, using the Submitted Bids template or by creating a correctly formatted .csv file, as described for Round 1.

The new bid file must include all products with bids previously submitted in the round, any products for which you have processed demand, and any products for which you wish to add bids. As in Round 1, once you correctly submit a new, modified bid file, the bids in the new bid file will replace any bids that were already submitted in the round. Therefore, make sure all your desired bids are correctly specified in the new upload.

If you want to change a bid that you or another user submitted earlier in the round, enter the desired amounts in the QUANTITY and PRICE columns in the new file (and change the BID_TYPE and SWITCH_TO_CATEGORY fields, if necessary). If the QUANTITY is equal to the bidder's processed demand, then the PRICE must be equal to the clock price. To add a bid for a product for which you did

not previously submit a bid, enter the appropriate information in the QUANTITY, PRICE, and BID_TYPE columns (and the SWITCH_TO_CATEGORY column if applicable) for the new product.

To delete a previously submitted bid for which you do not have processed demand, you must include that product in the modified bid file, specify "Delete" (not case sensitive) in the BID_TYPE column for that product, and ensure that the QUANTITY, PRICE, and SWITCH TO CATEGORY columns are null.

To add a proxy instruction for a product for which the bidder has processed demand and the file includes a bid to maintain the bidder's demand at the clock price, add a separate row for the product in your bid file with a quantity of 0 and a valid price above the clock price. Alternatively, you can change the quantity in the current row to 0 and change the price to a valid price above the clock price. To delete a proxy instruction but keep the bid for the current round, delete the row with the proxy instruction if the proxy instruction was a separate record. If the bid and proxy instruction were originally submitted as a single row, change the proxy instruction price to a price for this round and change the quantity to 1 (if desired and if the new price is the clock price), and upload the revised bids file.

If you want to "undo" all bids and proxy instructions submitted during the round and revert to any proxy bids and proxy instructions in effect at the start of the round, you may do so by clicking on the REVERT BIDS... button on the Place Bids screen.

As in Round 1, another way to change the bids is to delete all the bids and proxy instructions for the bidder by clicking on the DELETE BIDS... button. This will clear all of your bids from the bidding system, including any proxy instructions and bids based on proxy instructions. You may then upload a new bid file with your desired bids.¹³



Note that it is not possible to make changes to the bids submitted on behalf of the bidder after the round ends. Therefore, we strongly recommend that authorized bidders place their bids and verify these bids using the Bid Summary screen (and/or My Bids Download) early in the round to allow time to make any necessary changes before the round ends.

7.5. Monitoring Commitment and Activity

For each round, the bidding system calculates a bidder's eligibility, required activity, and contingent bidding limit based upon its processed activity from the previous round (i.e., the activity associated with the bidder's processed demand) or, for the first round, based upon its upfront payments. The top of the Place Bids screen displays the bidder's eligibility and required activity for the round (along with the activity requirement percentage for the round) in addition to the activity and the financial commitment associated with the bidder's submitted bids. The bidder's contingent bidding limit (along with the

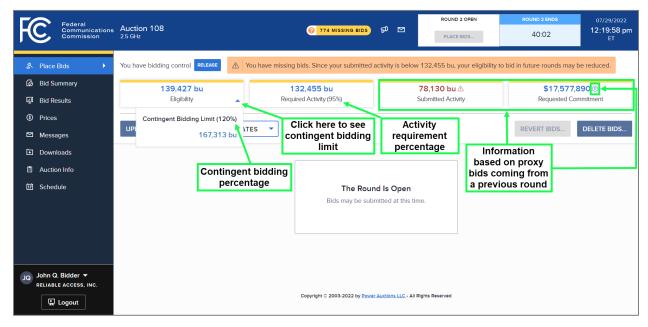
¹³ A bid file submitted after using the DELETE BIDS... button should not include "Delete" in the BID_TYPE column for any products, since the system has already cleared any bids you submitted in the round prior to using the DELETE button.

contingent bidding percentage for the round) can be viewed by clicking a triangle in the bottom of the bidder's Eligibility box (see Figure 25).

At the start of every round, the bidding system will generate proxy bids and proxy instructions, where appropriate, based on a bidder's proxy instructions that existed at the end of the previous round. The activity and requested commitment associated with any proxy bids will be included in the numbers displayed on the Place Bids screen. The current round's proxy bids are bids for a quantity of 1 or 0 at the current round's prices, and the proxy instructions, if present, are for a quantity of 0 at a price above the current round's clock price. The bidding system will also generate a proxy bid if the system was unable to process a bidder's request to reduce to 0 in the previous round. This proxy bid is a repeat of the previous bid—i.e., a request to reduce to 0 at the same price in the current round. A bidder is free to modify its proxy bids and its proxy instructions until the round closes.

If the bidding system generated proxy bids at the start of the round and these proxy bids have not been modified, the bidding system will display a (P) icon next to the requested commitment on the Place Bids and Bid Summary screens (see Figure 25 and Figure 28). When a user uploads any valid bids or deletes all bids in the round, the (P) icon is no longer displayed next to the requested commitment value. If the bidder reverts back to the bids at the start of a round, the (P) icon will display again.

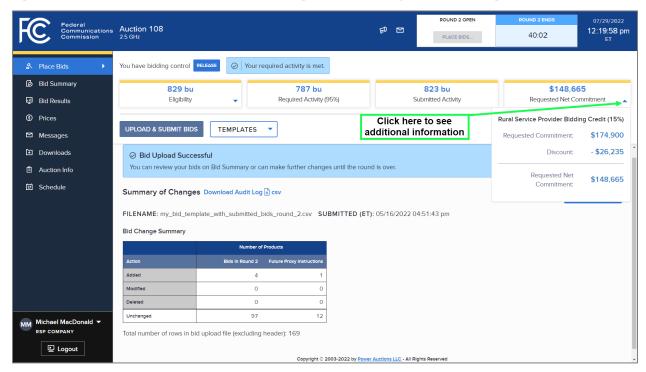
Figure 25: Place Bids screen showing contingent bidding limit and indicating that all submitted bids are proxy bids coming from a previous round



Every time you submit bids, the bidding system updates the bidder's submitted activity and requested commitment. The bidding system calculates these values under the assumption that your submitted bids will be fully applied during bid processing after the round and the posted prices will equal the clock prices. However, your processed activity for the round may be less or more than your submitted activity if the bidding system cannot apply in full all of your bids to change demand. Your commitment for the round may also be different than your requested commitment if the bidding system cannot apply some of your bids and/or some posted prices are lower than the corresponding clock prices.

If a bidder has claimed eligibility for a bidding credit, the bidding system, by default, displays the requested net commitment (the requested commitment less any bidding credit discount) associated with the bidder's submitted bids instead of the requested commitment. You can click on the triangle at the bottom right of the box to see the requested commitment and the corresponding discount (see Figure 26).

Figure 26: Place Bids screen for a bidder claiming a rural service provider bidding credit



If the bidder's discount has been capped, the bidding system will indicate that by including the text "(capped)" next to the discount, as shown in Figure 27 below. In that case, you can click on the triangle on the left of the discount to see uncapped discount information. Figure 27 illustrates this for a bidder that has claimed eligibility for the small business bidding credit discount.

\$54,889,762

Requested Net Commitment:

Added

Modified

Unchanged

Jane Bidder ▼

WIRELESS CONNECTION LLC

Federal Communications Commission Auction 108 **₽** ⊠ 27:51 PLACE BIDS... You have bidding control RELEASE Bid Summary 31,097 bu 31,094 bu 29,542 bu \$54,889,762 Requested Net Commitment Required Activity (95%) Submitted Activity ⊞ Bid Results Eligibility ⑤ Prices small Business Bidding Credit (25%) Click here to see TEMPLATES 🔻 ☑ Messages Requested Commitment: \$70,971,250 additional information Downloads ▲ Discount (capped): - \$16,081,488 O Submit Default Bids Successful You successfully submitted default bids for all products with positive processed demand. You can revier ound is over. Auction Info Your discount for small markets was capped at \$10,000,000. Your discount for all markets (non-small markets + the capped discount for small markets) was not capped, as it did not exceed the limit of \$25,000,000. Schedule Summary of Changes Download Audit Log 🕃 csv All Markets Discount (uncapped): \$17,742,813 SUBMITTED (ET): 08/01/2022 02:31:10 pm of which, Small Markets Discount (uncapped): \$11,661,325 Bid Change Summary

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Figure 27: Place Bids screen for a bidder claiming a small business bidding credit

Number of Products

1,722

0

0

8. Verifying Bids

The bidding system provides bidders with several ways to verify that their bids were submitted properly. You can view a summary of your submitted bids (including any proxy instructions) on the Bid Summary screen. You can download the My Bids file for the round from the Downloads screen to have a record of the bids submitted for the bidder in the round. You can also download the My Audit Log file to have a chronological record of all bidding actions for the bidder in the round.

You should verify your bids in each round of the auction before the round ends.



It is strongly recommended that, before the round ends, you print or save the Bid Summary screen and/or download the My Bids file for a record of the bids submitted on behalf of the bidder in the round. These are the bids that will be processed by the bidding system for the bidder.

8.1. Bid Summary Screen

Throughout the auction, you may verify on the Bid Summary screen the bids that have been submitted in a round (and in past rounds) on behalf of the bidder. This screen displays all the bidder's bids for a round and the associated submitted activity and requested commitment. A bid may have been submitted by you, by another authorized bidder for the bidder, or, by the system when the bidder has proxy bids coming into the round or if the bidder had missing bids. If bids change while you are viewing the Bid Summary screen, the "Bids Changed" badge will be displayed indicating this, and you can refresh the screen using the REFRESH button to view the updated information.

Note that this screen displays the bids that (assuming no further changes are made) will be processed when the round ends. This screen does not contain bids that were submitted earlier in the round but were subsequently changed.

The layout of the Bid Summary screen is shown in Figure 28. The first four columns display information specific to the product. For rounds after Round 1 of the auction, the next two columns show results of the previous round for the bidder (the aggregate demand and the bidder's processed demand with the posted price). The next column displays the clock price for the selected round. In Round 1 the next four columns display the bid type, the quantity, the bid price, and the requested commitment for the bid. Starting in Round 2, the price point percentage ¹⁵ is also shown. The last column indicates whether there is a proxy instruction for a product in addition to the bid for the selected round. The user can see all of the bidder's proxy instructions in the My Bids download.

¹⁴ Missing bids are treated by the auction bidding system as requests to reduce to a quantity of zero for the product.

41

-

¹⁵ On this screen, the price point percentages are rounded to two decimal places. The full 10 digits of the price point are provided for round's bids in the My Bids download. Note that price point percentages are null (blank) for proxy instructions.

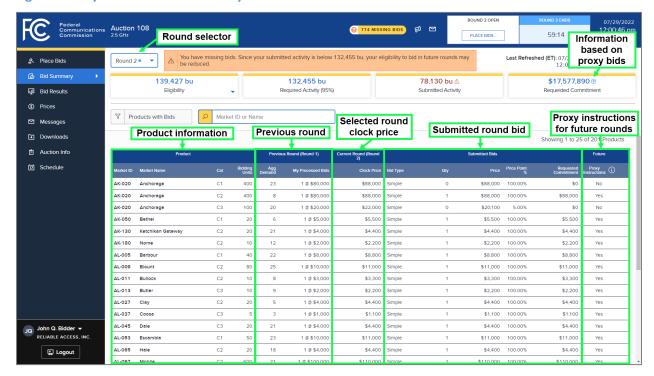


Figure 28: Layout of the Bid Summary screen

The table on the Bid Summary screen only includes the bidder's most recently submitted set of bids in the selected round. Only products with bids are displayed on this screen. The table includes one row of data for each product with a bid. If the bidder has missing bids during an open round, this is indicated with a message and a badge at the top of the screen. After bids are processed, the Bid Summary screen will also include any missing bids that the system submitted.

At the top of the Bid Summary screen is information regarding the eligibility (including the contingent bidding limit in a pulldown), required activity, submitted activity, and requested commitment for the bidder in that round, identical to the information on the Place Bids screen. If all submitted bids are based on proxy instructions coming from a previous round and the bidder has not yet submitted a valid bid upload or bid deletion during this round, the bidding system indicates it by displaying a (P) icon next to the requested commitment value (see Figure 28). Unlike the Place Bids screen, however, you may select a previous round to display values relating to that round.

If a bidder has claimed eligibility for a bidding credit, the bidding system will display by default the requested net commitment, taking into account the bidding credit percentage and the bidding credit discount caps. As on the Place Bids screen, you may also view the requested commitment and the bidding credit discount by clicking on the triangle at the bottom right of the box (for more information see Section 7.5).

Like other screens that show the products, the Bid Summary screen is paginated. The screen can be printed using the <u>Print...</u> icon located in the top right-hand corner of the screen.

If, while you are on the Bid Summary screen, bids are submitted on behalf of the bidder by another authorized bidder, a "Bids Changed" badge will appear at the top of the screen to alert you, as shown in

Figure 29. You can remove the badge and see the summary of the new bids by clicking the REFRESH button near the top of the screen.

200 13

₽ ⊠ 12:00:46 pm 59:14 Indicates bids have been submitted by another ast Refreshed (ET):07/29/2022 12:00:30 pm authorized bidder 139,427 bu 132,455 bu ⊞ Bid Results Required Activity (95%) Submitted Activity Requested Commitment ③ Prices ▼ Products with Bids Market ID or Name ☑ Messages Showing 1 to 25 of 975 Products Auction Info ্যি Schedule Bidding Agg Units Demand Requested Proxy (i) Clock Price Bid Type AK-016 \$1.100 Simple AK-016 Aleutians West C2 25 1 @ \$1.000 \$1.100 100.00% \$1.100 No AK-016 Aleutians Wes 1 @ \$500 \$550 \$550 AK-020 Anchorage \$88,000 \$88,000 1 @ \$80,000 \$88,000 23 AK-020 Anchorage 1 @ \$80,000 \$88,000 \$88,000 AK-020 Anchorage 1 @ \$20,000 \$22,000 100.009 AK-050 Bethel \$5,500 1 @ \$5,000 \$5,500 \$5,500 AK-050 Bethel 1 @ \$5.000 \$5.500 \$5.500 \$5.500 AK-130 Ketchikan Gateway 1 Ø \$4,000 AK-130 Ketchikan Gateway C2 21 1 @ \$4,000 \$4,400 Simple \$4,400 100,00% \$4,400 No ΔK-180 AK-230 Skagway 1 Ø \$500 John Q. Bidder ▼ AL-001 Autauga 1 Ø \$5,000 \$5,500 Simple \$5,500 100.00% \$5,500 No

\$55,000

\$55.000 Simple

\$8,800 Simple

\$55.000 100.00%

\$8,800 100.00%

\$55.000

Figure 29: Bids Changed badge on Bid Summary screen

8.2. My Bids Download

AL-003

AL-003 Baldwin

AL-005 Barbour

You may also verify the bids that have been submitted for the bidder via the My Bids download file, which can be accessed from the Downloads screen (see Section 10 for information on the Downloads screen). Like the Bid Summary screen, the My Bids download provides up-to-date information about your bids. This file will contain the bids from the last successful bid upload or "quick action", including any proxy bids. In addition to the bids for the round, the My Bids download includes records of the bidder's proxy instructions. During the round, the file is updated to include the bids and proxy instructions from the latest updates submitted on behalf of the bidder. It does not contain bids and proxy instructions that were submitted earlier in the round but were subsequently changed. After bids are processed, the My Bids download will also contain any missing bids that the system submitted.

1 @ \$50.000

1 @ \$8,000

8.3. My Audit Log

The audit log provides a history of all the bid actions that have been performed on behalf of the bidder during the auction. It can be downloaded from the Audit tab of the Downloads screen. The log includes all the bid upload attempts for a given product, including whether the upload attempt was successful, the name of the authorized bidder that uploaded the file, and the time of the upload. The audit log also contains a record of authorized bidders clicking on "quick actions" such as default bids, reverting bids, or deleting bids, and the system placing proxy bids when the round is announced and missing bids when the round ends. You can download the audit log to have a record of that information.

9. Viewing Results

You can view information about results in several places: overall auction results are available in the Public Reporting System (PRS) and results specific to a bidder are available on the bidder's Bid Results screen. Only products for which a bid was submitted during the round or for which there was a proxy bid or missing bid are displayed on the Bid Results screen. You may view aggregate demand and price information on the Prices screen for all products from counties that the bidder selected on its Form 175.

9.1. Auction Results

Information about the overall results of Auction 108 are available to bidders and to the general public on the PRS. The PRS can be accessed by the public at <u>auctiondata.fcc.gov</u> or from a link on the Auction 108 website (<u>www.fcc.gov/auction/108</u>) in the Results section.

9.2. Bid Results Screen

After results for a round have been posted, you may view the results of bid processing for the bidder on the Bid Results screen. You may also view the results of bid processing for past rounds.

The layout of this screen is shown in Figure 30 below. The first four columns provide information about each product—specifically, the market ID and name, the category, and the number of bidding units. The next column provides aggregate demand information. The next three columns provide other results of bid processing—the bidder's processed demand, the posted price, and the bidder's commitment for the product. ¹⁶ The next column indicates whether the bidder has a proxy instruction for each product with a processed bid. Starting in Round 2, a "Details" column allows you to see additional explanation if the bidder's bid for that product was not applied.

¹⁶ The bidder's commitment for a product is calculated as the product of the posted price and the bidder's processed demand.

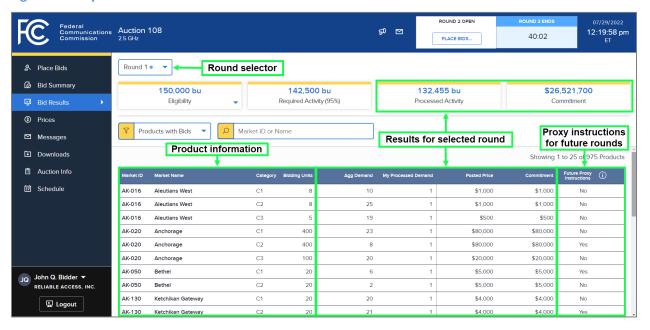


Figure 30: Layout of the Bid Results screen

The top of the Bid Results screen shows the bidder's eligibility (including a pulldown to view the contingent bidding limit), required activity, as well as the bidder's processed activity and commitment after the bid processing for that round. The bidder's processed activity and commitment are calculated based on the bidder's processed demands.

If a bidder has claimed eligibility for a bidding credit, the bidding system will display by default the net commitment, taking into account the bidding credit percentage and the bidding credit discount caps. You may also view the commitment and the corresponding bidding credit discount by clicking on the triangle at the bottom right of the net commitment box. This is analogous to requested net commitment on the Place Bids screen (for more information see Section 7.5).

You may view the results from previous rounds on the Bid Results screen by selecting the round number from the round selector, located at the top of the screen.

You may print a record of the bid results for a round by clicking on the <u>Print...</u> icon on the Bid Results screen. Printing is restricted to 500 products. You can use the filters provided on the screen to reduce the number of products shown. Like other screens that show products, the Bid Results screen is paginated.

You can filter the products using one of the following options: "Products with Bids", "Products with Bids Not Applied" (not available for Round 1), and "Products with Processed Demand".

If the bidder has one or more bids that were not applied, the Bids Results screen contains a message at the top of the page, and links to Result Details are provided for the corresponding products in the "Details" column of the table (see Figure 31). If bidder's simple bid to reduce demand to 0 is not applied, the bidding system will create a proxy instruction to re-submit this bid reduction in the next round. You may click on those links to obtain more information about any bid for a product that was not applied. You may also use the "Products with Bids Not Applied" filter.

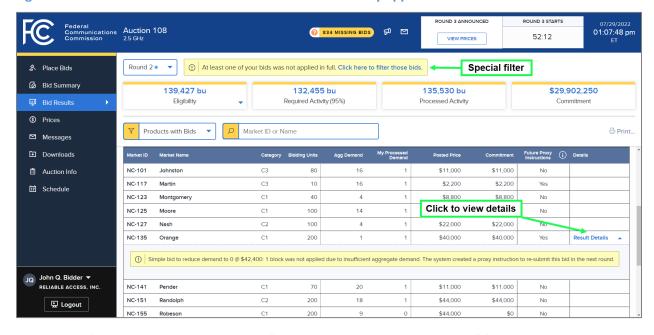
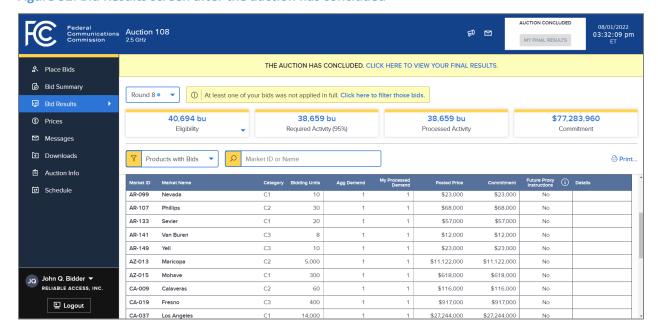


Figure 31: Bid Results screen when some bids were not fully applied

At the end of the auction, you can use the "Products with Processed Demand" filter on the Bid Results screen to view all licenses that you have won (as illustrated in Figure 32 below). For a given license that the bidder won, the My Processed Demand column shows 1 and the Posted Price column shows the final price. The bidder's overall commitment (or net commitment) is displayed at the top right of the screen.

Figure 32: Bid Results screen after the auction has concluded



9.3. Prices Screen

The Prices screen shows the prices for a round for all products in counties that were selected on the bidder's Form 175 along with the bidding units and the previous round's aggregate demand. ¹⁷ For Round 1, the Prices screen shows the opening price for each product.

For a round after Round 1, as soon as the prices for the round have been announced, the Prices screen shows the price range for each product: the start-of-round price is the lowest price in the range, and the clock price is the highest price in the range. The % Increase column indicates the percentage by which the clock price exceeds the start-of-round price. Note that, because clock prices are rounded up, the % increase for a given product may exceed the increment percentage for the round. 18

For a round after Round 1, the Prices screen also provides information about the results of the previous round: the Agg Demand column indicates the aggregate demand for the product and the My Processed Demand column indicates the bidder's processed demand.

An example of the Prices screen is provided in Figure 33 below. The screen has a round selector to view the data for a past round and is paginated. You may print the prices for a round by clicking on the <u>Print...</u> icon. Printing is restricted to 500 products. You can use the filters provided on the screen to reduce the number of products shown.

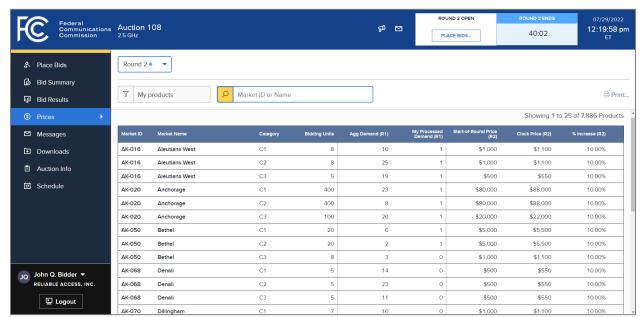


Figure 33: Layout of the Prices screen

¹⁷ Price information is also available in a number of downloads, including the bid templates and the product status download.

¹⁸ For more information on rounding, see the Auction 108 Technical Guide, Section 7.2.

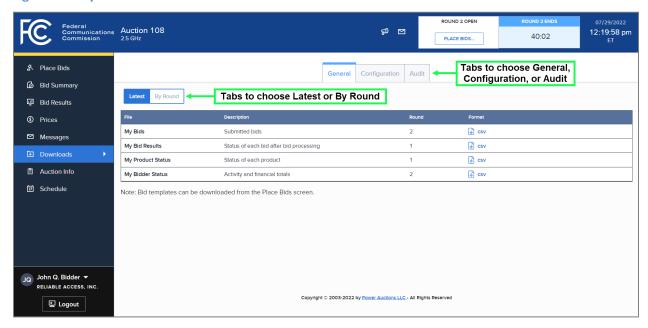
9.4. Downloadable Results

You can also download a number of different files containing results on the Downloads screen: My Bid Results, My Product Status, and My Bidder Status. See Section 10 for information on the Downloads screen.

10. Downloadable Files

The bidding templates can be found on the Place Bids screen. Other downloadable files are found on the Downloads screen. The files on the Downloads screen are grouped into three tabs: General, Configuration, and Audit, as shown in Figure 34 below.

Figure 34: Layout of the Downloads screen



The files on the General tab are round-specific and become available at different times depending on when the underlying data is generated. The General tab can be viewed in two ways: "Latest" and "By Round". By selecting "Latest", you can view each file for the most recent round for which it has been generated. Selecting by "By Round" allows you to pick a specific round from a dropdown list and view all files that have been generated for that round.

If a file is not yet available for the round, it will be grayed out and cannot be downloaded. This is the case for the My Bid Results download in Figure 35 below. The message to the right of the icon indicates when the file will be available for that round.

ROUND 1 OPEN eral Imunications Auction 108 Imission 2.5 GHz **₽** ☑ 10:12:44 am PLACE BIDS... A Place Bids General Configuration Audit Bid Summary Latest By Round ⊞ Bid Results ⑤ Prices Submitted bids € csv ☑ Messages My Bid Results Status of each bid after bid processing csv Available when the results of the round are posted Downloads My Product Status Status of each product 1 ₽ csv Auction Info My Bidder Status Activity and financial totals & csv Schedule Note: Bid templates can be downloaded from the Place Bids screen Empty download icon shows that the file cannot be downloaded at this time JQ John Q. Bidder ▼ Copyright © 2003-2022 by Power Auctions LLC - All Rights Reserved 딮 Logout

Figure 35: Downloads screen where My Bid Results is not yet available

Table 3 below describes the three tabs of the Downloads screen—General, Configuration, and Audit—and the files on each tab along with when each file becomes available. Details about the specifications for downloadable files are available on the FCC website for Auction 108 (www.fcc.gov/auction/108) under the Education tab.

Table 3: Files available on the Downloads screen

Tab	Description and files	Availability for a given round
General (round-specific files)	My Bids — The most recent bids and proxy instructions that were successfully entered for a bidder for a round. One record for each bid entered by the bidder or by the bidding system based on a proxy instruction, one record for each proxy instruction for future rounds, and one record for each product for which the bidder had processed demand in the previous round but did not submit a bid in this round (missing bid)	Available when the prices for the round are announced Updated every time bids are submitted, reverted or deleted. Also updated when bids are processed to include missing bids (if any).
	My Bid Results — One record for each product that had a bid in a specific round (submitted by a bidder or entered by the bidding system based on proxy instructions), or had a missing bid	Available when the round is posted

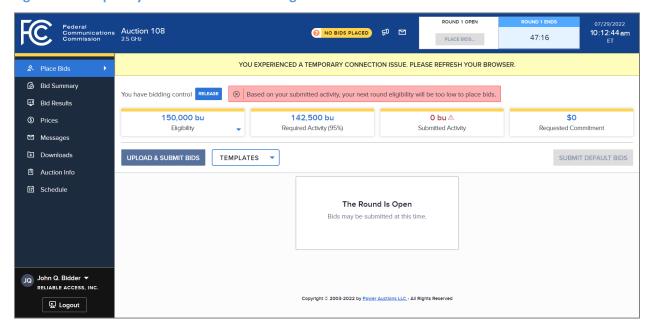
Tab	Description and files	Availability for a given round
General (round-specific files)	My Product Status — Information about each product in counties that the bidder selected in its Form 175, including the aggregate demand, the posted price for the round, and the next round's clock price	For Round 1, available when the prices are announced For later rounds, available when the round is posted and updated when the next round's prices have been announced
	My Bidder Status — Consists of a single record and provides overall information for the bidder for the round, including the bidder's eligibility, activity, requested commitment, and processed commitment as well as bidding credit information for bidders that have claimed eligibility for a bidding credit	Available when the prices for the round are announced Updated every time bids are submitted, reverted or deleted, and when the round is posted, and when the prices for the round are announced
Configuration	My Markets — A list of the counties that the bidder selected in Form 175	Available throughout the auction (not specific to a round)
Audit	My Audit Log — Audit log of the bidder's bidding actions	Available throughout the auction (not specific to a round) Updated every time a bidding action is performed for the bidder

Appendix 1: System Troubleshooting

If you continue to experience problems after following the troubleshooting instructions, please call the FCC Auctions Technical Support at (877) 480-3201, option nine; (202) 414-1250; or (202) 414-1255 (TTY) (8:00 a.m. – 6:00 p.m. ET on business days).

Situation 1: Temporary connection issue

Figure 36: Temporary connection issue message



You may see the yellow banner message shown in Figure 36 if you navigate to another tab in your browser for several minutes before returning to the auction system. To remove the banner message and ensure that the information on your screen is up to date, you must refresh your screen by either clicking the Refresh/Reload button in your browser or by simultaneously pressing the 'Ctrl' and 'R' keys on your keyboard.

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

Figure 37: Microsoft Edge (Chromium) connection error message

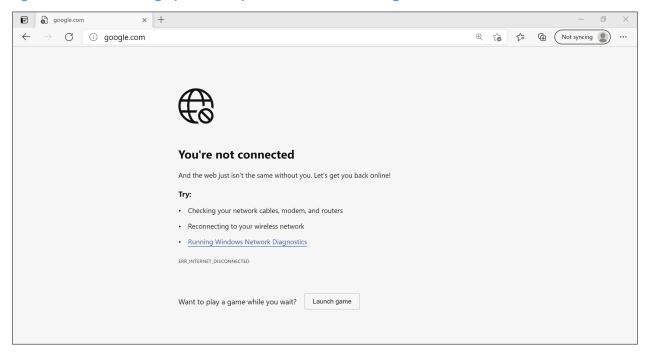
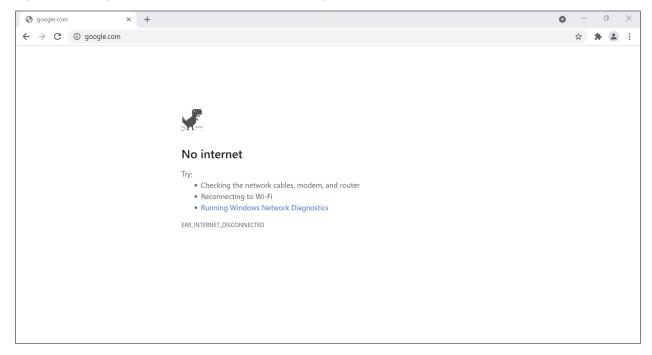


Figure 38: Google Chrome connection error message



If any of the screens shown above appear, complete the following steps:

- Confirm that the computer has external internet access. Try to access a common site on the internet such as www.google.com. If this is unsuccessful, the computer does not have external internet access.
- Confirm that you are using the correct URL for the bidding system.
- Confirm that your organization has not blocked access to the site. Your organization may only allow you to access certain external web sites. Check with your IT department.
- You may not have selected the "OK" button when the message appeared stating that you are about to enter a secure site. Re-start the browser and try again ensuring you click on the "OK" button.
- Confirm that you are using the correct browser version (see bidding system requirements in Section 3.1) by performing the following steps:
 - Edge: First, click on the tools icon ... (which can be found in the top right-hand corner of your browser). Then click "Settings" and scroll down to "About Microsoft Edge."
 Make note of the version number.
 - Chrome: First, click on the tools icon (which can be found in the top right-hand corner of your browser). Then click "Help" followed by "About Google Chrome." Make note of the version number.

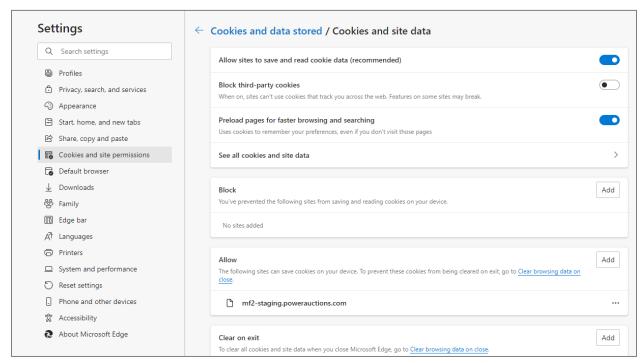
Situation 3: Cookies must be enabled error message

The bidding system requires that cookies are enabled on your browser. If cookies are disabled, you will see a message stating that cookies should be enabled.

To enable cookies in Microsoft Edge (Chromium), complete the following steps:

- Click on the tools icon ... in the top right-hand corner of your browser.
 - o Click on "Settings" and "Cookies and site permissions".
 - Click on "Cookies and site data" and then slide the circle to the right next to the words
 "Allow sites to save and read cookie data (recommended) in Figure 39.
 - Then, close the "Settings" tab.

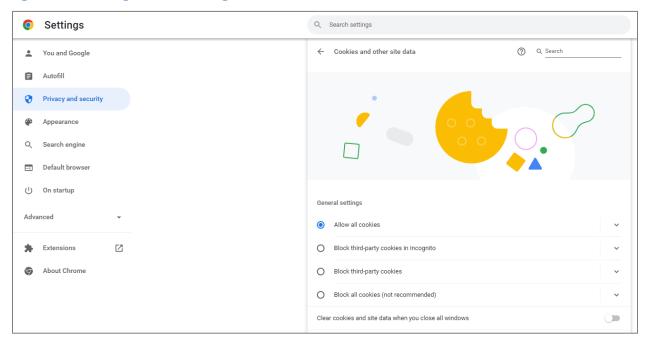
Figure 39: Enabling cookies in Microsoft Edge (Chromium)



To enable cookies in Google Chrome, complete the following steps:

- Click on the tools icon in the top right-hand corner of your browser.
 - Click on "Settings" and "Privacy and security".
 - In the "Privacy and security" section, click on "Cookies and other site data" to display a screen similar to that shown in Figure 40.
 - O Click the circle next to the words "Allow all cookies".
 - Then close the "Settings" tab.

Figure 40: Enabling cookies in Google Chrome



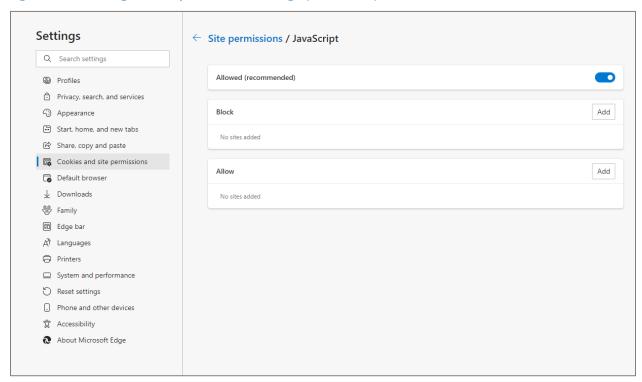
Situation 4: JavaScript must be enabled error message

The bidding system requires that JavaScript is enabled on the browser used. If JavaScript is disabled, there will be a message stating that JavaScript has been blocked on the page.

To enable JavaScript in Microsoft Edge (Chromium), complete the following steps:

- Click on the tools icon ... in the top right-hand corner of your browser.
 - o Click on "Settings" and "Cookies and site permissions".
 - Under "JavaScript" slide the circle to the right next to the words "Allowed (recommended)", as shown in Figure 41.
 - o Then, close the "Settings" tab.

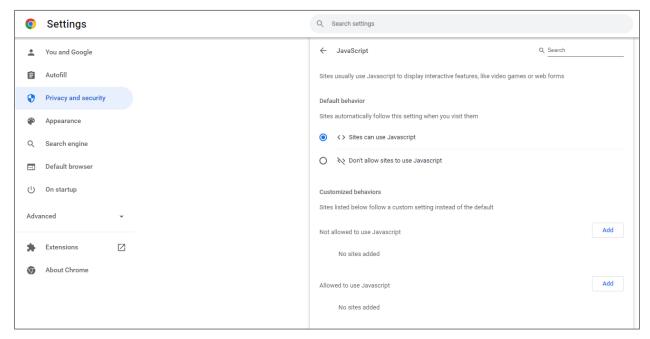
Figure 41: Enabling JavaScript in Microsoft Edge (Chromium)



To enable JavaScript in Google Chrome, carry out the following steps:

- Click on the tools icon in the top right-hand corner of your browser.
 - Click on "Privacy and Security".
 - o In the "Privacy and security" section, click on the "Site settings" area, and then click on the "JavaScript" area to display a screen similar to that shown in Figure 42.
 - o Click the circle next to the words "Sites can use Javascript".
 - o Then close the "Settings" tab.

Figure 42: Enabling JavaScript in Google Chrome



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

If you have been using the bidding system successfully and "page cannot be displayed" appears when you click on a link or a button, then complete the following steps:

- Click on the Refresh/Reload button to reload the page.
 - o If that is successful, please verify any actions that you were taking when the message was displayed. If you were in the middle of placing bids, you should verify your bids using Bid Summary. You may need to place your bids again.
- Re-navigate to the bidding system URL and, if prompted, log in again.
- If that is successful, please verify any actions that you were taking, as discussed above.
- Your internet connection may have gone down. Confirm that your computer has external internet access. Try to access a common site on the internet such as www.google.com. If this is unsuccessful, the computer does not have external internet access.
- The bidding system may be down. To confirm whether the bidding system is down, first confirm that you have internet access and then attempt to access the auction portal and the login screen (see Section 3.2). If you are unable to view either page, or the page states that the bidding system is unavailable, then the bidding system may be down and you should call the Auction Bidder Line telephone number provided with the registration materials.

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

Do not use the browser's back button to access a previous screen. To move between screens, use the links and buttons in the bidding system.

Situation 7: Computer or web browser crashes

If the browser crashes or the computer freezes, it is recommended that you reboot the machine (or use a different machine) to access the bidding system.

Please review any actions that you were taking when the computer crashed. If you were in the middle of placing bids, you should verify your bids using Bid Summary. You may need to place your bids again.

If the computer crashes while you are using the bidding system, you may access the bidding system using a different computer. When a user logs in to a second computer, whether the user has logged out of the first computer or not, the second login will automatically cause the user to be logged out of the first computer.

Situation 8: Certificate error message

If you access the bidding system and see a security message similar to that shown in Figure 43 (for Microsoft Edge (Chromium)) or Figure 44 (for Google Chrome), you should not proceed. Please call FCC Auctions Technical Support at (877) 480-3201, option nine; (202) 414-1250; or (202) 414-1255 (TTY).

Figure 43: Certificate security error message in Microsoft Edge (Chromium)

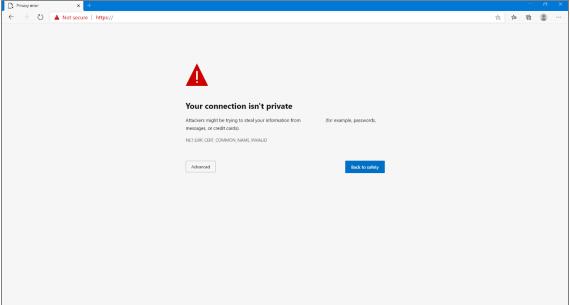
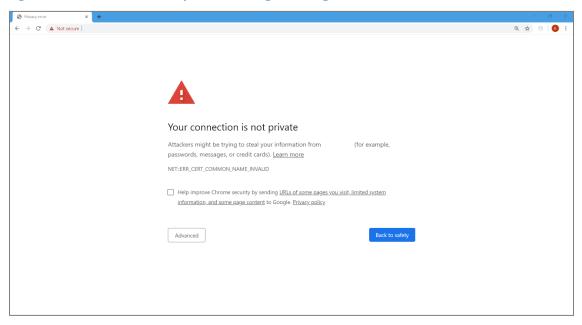


Figure 44: Certificate security error message in Google Chrome



Appendix 2: RSA SecurID® Token Information

For additional assistance with lost or damaged RSA tokens and for questions about changing a user (i.e., an authorized bidder), the person who has been designated as the contact person, or the certifying official on the bidder's FCC Form 175 application (designated person), should call the Auction Bidder Line telephone number provided with your registration materials.

1. Number of RSA Tokens Issued and Extra RSA Tokens

Each qualified bidder is issued three RSA tokens. Each bidder is permitted to identify up to three authorized bidders on its Form 175. Therefore, a bidder with fewer than three authorized bidders will have one or two extra tokens.



Bidders cannot use an extra RSA token unless they contact the FCC to activate the extra RSA token for a specific user.

Each RSA token must be associated with a specific authorized bidder. RSA tokens are not interchangeable among authorized bidders. The FCC must reassign the token in the RSA server for the token to become functional.

2. Replacing Lost or Damaged RSA Tokens

In the event that an RSA token is lost or damaged, the person who has been designated as the authorized bidder, contact person, or certifying official listed on the bidder's FCC Form 175 should call the Auction Bidder Line telephone number provided with the registration materials to request activation of a replacement token.

3. Change of User (Authorized Bidder)

A qualified bidder may change or replace its authorized bidders. For more information on changing the authorized bidder assigned to an RSA token, the person who has been designated as the authorized bidder, contact person, or certifying official listed on the bidder's FCC Form 175 application should call the Auction Bidder Line telephone number provided with the registration materials.

4. Forgotten PIN

If an authorized bidder forgets his PIN, he should contact FCC Technical Support at (877) 480-3201, option nine; (202) 414-1250; or (202) 414-1255 (TTY)) to have the PIN reset. Please note, however, that this process might not occur before a round ends. In this event, a bidder may lose bidding eligibility. FCC Technical Support is generally available Monday through Friday from 8 a.m. to 6 p.m. ET.

Appendix 3: Bid Upload Errors

The table below lists all the bid upload error codes along with the corresponding error messages that are displayed. The text displayed after the colon and the numbers at the very end of a message are just examples, for purposes of this user guide, of what could actually be displayed and are shown below in *italics*.

Error Code	Error Message
E001	Your file does not have enough data in it.
E002	Your upload exceeded the maximum file size limit.
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 six fields in the header must be in this order: MARKET, CATEGORY, QUANTITY, PRICE, BID_TYPE, SWITCH_TO_CATEGORY.
E006	The round is not open.
E007	You are no longer eligible to bid.
E010	Error: file missing.
E014	Your file does not contain any bids.
E016	Row is blank.
E100	Market invalid or missing.
E101	You did not select this market on your auction application.
E102	Category invalid or missing for this market.
E103	Upload file must contain a bid for AL-003-C1, as this product has processed demand.
E104	Upload file must contain a bid for AR-071-C2, as this product has a submitted bid.
E106	In order to include proxy instruction for <i>CA-077-C3</i> , you must include a bid at the opening price with QUANTITY =1 and BID_TYPE = Simple.
E107	You cannot specify a proxy instruction for CO-015-C2 as your processed demand is 0.
E200	Price not specified.
E201	Price must be a positive integer.
E202	Price must be greater than or equal to the opening price for this product, \$950,000.
E203	Price must be greater than or equal to the last round's posted price for this product, \$265,000.
E205	Duplicate Price: You cannot specify two bids at the same price for a product.
E208	PRICE must be less than or equal to the maximum allowed price of \$999,999,000.
E212	Price below \$10,000 must be a multiple of \$10.
E213	Price between \$10,000 and \$100,000 must be a multiple of \$100.
E214	Price above \$100,000 must be a multiple of \$1,000.
E215	You cannot specify a price greater than the opening price $$150,000$$ when your quantity is 1.

Error Code	Error Message
E216	You cannot specify a price greater than the clock price \$220,000 when your quantity is 1.
E300	Quantity not specified.
E301	Simple bid: Quantity must be an integer between 0 and 1.
E302	Duplicate Quantity: You cannot specify two bids with the same quantity for a product.
E303	Starting with your processed demand, quantities for a product must either all be increasing or decreasing as prices for that product increase.
E304	To maintain the same quantity as your processed demand, you must enter a bid at this round's clock price.
E309	Invalid Quantity: must be 1.
E400	BID_TYPE cannot be null for a product with one or more submitted bids.
E401	BID_TYPE cannot be null for a product with processed demand. You must specify a price, quantity, and bid type.
E402	BID_TYPE cannot be null for a product that already has a bid in the file.
E404	You cannot place a bid for a product that already has a row with BID_TYPE = null.
E405	You cannot have two or more rows with BID_TYPE as null for the same product.
E500	You specified a delete request (BID_TYPE = DELETE), but there is no bid to delete for this product.
E503	Invalid BID_TYPE: Switch. BID_TYPE must be either Simple or DELETE in Round 1.
E504	BID_TYPE must be specified if PRICE, QUANTITY or SWITCH_TO_CATEGORY are specified.
E505	Invalid BID_TYPE: Increase. BID_TYPE must be either Simple, Switch, or DELETE.
E506	PRICE, QUANTITY, and SWITCH_TO_CATEGORY must be null when BID_TYPE is DELETE.
E507	Only one bid type per product is allowed.
E508	You specified a delete request (BID _TYPE = DELETE) for a product that already has a delete request in the file.
E509	BID_TYPE cannot be DELETE for a product with processed demand.
E510	Invalid BID_TYPE: Switch. BID_TYPE must be Simple for a proxy instruction.
E550	SWITCH_TO_CATEGORY must be null unless the BID_TYPE is Switch.
E551	You must specify the SWITCH_TO_CATEGORY when the BID_TYPE is Switch.
E552	SWITCH_TO_CATEGORY must specify a different category than the category of the "from" product.
E553	Invalid SWITCH_TO_CATEGORY: C5. SWITCH_TO_CATEGORY must specify a valid category.
E554	You cannot submit a switch bid when the "from" product has no processed demand.
E555	You cannot specify a switch bid for a market with a single category.
E556	You cannot submit a switch bid when the "to" product has processed demand equal to its supply.
E557	The upload file should not contain rows for both the "from" and the "to" categories of a switch bid.
E558	The upload file must contain rows for both the "from" and the "to" categories in order to remove any switch bid on AZ-011.
E559	You cannot specify a switch bid for a category C3.
L	<u> </u>

Error Code	Error Message
E600	Your submitted activity (1800 bu) would exceed your contingent bidding limit (1260 bu).
E800	You do not have bidding control.

Appendix 4: Glossary of Terms

Term	Definition
Activity	Bidding activity is the total number of bidding units associated with a bidder's demands. During a round, and before the bids from the round are processed, the submitted activity shown on the Place Bids and Bid Summary screens is an estimate of activity that assumes that all the bids submitted so far in the round are applied during bid processing.
	After the bids of a round have been processed, the Bid Results screen shows the total number of bidding units associated with the bidder's processed demands for the round ("processed activity").
Activity Requirement Percentage	A percentage (expressed in terms of eligibility) that the processed activity must meet in order for a bidder's eligibility to remain unchanged in the next round. Initially, the activity requirement percentage will be set at 95%. The FCC retains the discretion to change the percentage during the auction within the range of 90% and 100%.
Aggregate Demand	The sum of processed demands by all bidders for a given product for a given round.
Auction ID	The FCC auction number for this auction, Auction 108.
Bid Templates	Four templates available on the Place Bids screen that can be used to prepare a bid file and to verify that bids have been properly submitted: • Submitted Bids • Default Bids • Default Bids and Proxies • My Markets
Bidding Credit	A discount on a bidder's total payment for the licenses it wins in the auction. Bidders that qualify for a rural service provider bidding credit receive a 15% discount. Bidders that qualify for a small business bidding credit receive either a 15% or 25% discount. The total amounts of bidding credit discounts on new licenses are capped as described below.
Bidding Credit Discount Caps	The total amount of an eligible bidder's rural service provider bidding credit discount will be capped at \$10 million. The total amount of an eligible bidder's small business bidding credit discount will be capped at \$25 million. Of that, the small business bidding credit discount will be capped at \$10 million for bids on licenses in small markets.
Bidding Unit	Unit used for measuring activity and eligibility. Each product is assigned a number of bidding units. This number does not change during the auction.

Term	Definition
Clock Price	The maximum price for a given product associated with a given round.
Commitment	The sum, over all products, of the bidder's processed demand for a product multiplied by the product's posted price, for the round.
	The maximum number of bidding units that the bidder can bid for in a round.
Contingent Bidding Limit	In Round 1, the contingent bidding limit is equal to the bidder's eligibility for the round. Starting in Round 2, the contingent bidding limit is 120% of the bidder's eligibility for the round. The FCC retains
	the discretion to change the percentage during the auction within the range of 100% and 140%.
Default Bids	Bids to maintain the bidder's processed demands at this round's clock prices.
Eligibility	The maximum number of bidding units for which the bidder can have processed demand after the round. For Round 1, this is also the maximum number of bidding units that the bidder may bid for in the round.
	For Round 1, the eligibility depends on a bidder's upfront payment. For every other round, a bidder's eligibility depends on its processed activity in the previous round and the activity requirement percentage.
FRN	The FCC Registration Number, a unique identifier for each bidder.
Market ID	A unique identifier for each county in the auction.
Missing Bid	If no bid or proxy bid is submitted for a product for which the bidder has processed demand, the bidding system will consider that to be a missing bid, which will be processed as a bid request for a quantity of zero at the start-of-round price. A missing bid will not necessarily reduce the bidder's processed demand to zero after the round. The bidding system will apply the missing bid request, subject to the overall restriction that aggregate demand for a product cannot fall below 1.
Opening Price	The Round 1 price for a product, also referred to as "minimum opening bid".
Posted Price	The price for a product after the bids of the round are processed. The posted price for a round becomes the start-of-round price of the next round.
Posted Round	A round status indicating that the bids from the round have been processed, and the results have been made available to the bidders through the bidding system.

Term	Definition
Price Point	The price point indicates, as a percentage, the distance of the bid price between the start-of-round price and the clock price. For example, the 0% price point refers to the start-of-round price, the 100% price point refers to the clock price, and the 50% price point refers to the average of the start-of-round price and the clock price. For bid processing, the bidding system converts bid prices into price points in order to determine the order of processing across all products.
Processed Activity	The total number of bidding units associated with the bidder's processed demand after processing the bids of the round. The bid processing algorithm ensures that processed activity does not exceed the bidder's eligibility for the round.
Processed Demand	The bidder's demand for the product after the bids for the round have been processed.
Proxy Bid	A bid automatically submitted by the bidding system based on either the bidder's proxy instruction from a previous round or the system-generated proxy instruction for a reduction to 0 that could not be applied. For a bidder's proxy instruction, the bidding system submits a proxy bid to maintain the bidder's demand for the license in every subsequent round as long as the clock price for the round is less than the proxy instruction price. In the first round in which the clock price is greater than or equal to the proxy instruction price, the bidding system submits a proxy bid on behalf of the bidder to reduce the bidder's demand for that license to 0 at the proxy instruction price. For system-generated proxy instructions, the bidding system submits a proxy bid to reduce demand to 0 at the same price as before. The bidding system submits this proxy instruction until the request to reduce to 0 is applied, or the bidder removes this proxy instruction with its bids in a round.
Proxy Instruction	A proxy instruction submitted by a bidder: A request to reduce the bidder's demand for a license from 1 to 0 at a proxy price which is above the current round's clock price (and to maintain the bidder's demand up to that price). A proxy instruction submitted by the bidding system: A request to reduce the bidder's demand for a license from 1 to 0 at the previous round's reduction price that could not be applied. The bidding system will generate proxy bids based on any proxy instructions for the bidder.
PRS	The Public Reporting System.

Term	Definition
Requested Commitment	The total gross bid amount calculated at the clock price given all bids that have been submitted so far in the round for the bidder, assuming that all bids are applied during bid processing. During the round, bids for the round have not yet been processed, so the requested commitment, which is updated as bids are submitted, is an estimate of a bidder's commitment.
	This number is calculated and shown to the bidder on the Place Bids and Bid Summary screens.
Required Activity	The minimum total number of bidding units that the processed activity must meet in order for a bidder's eligibility to remain unchanged in the next round. The required activity is calculated by multiplying the activity requirement percentage by the bidder's eligibility for the round.
Round	The time period during which bids can be submitted.
Start-of-round Price	The minimum price at which a bidder can submit a bid in the round for a given product. The start-of-round price for a round for a product is equal to the posted price of the previous round for that product.
Submitted Activity	The total number of bidding units associated with all bids submitted up to that point in the round, assuming that all are applied during bid processing. The submitted activity cannot exceed the bidder's contingent bidding limit for the round.