THE CENTER FOR THE STUDY OF AUCTIONS, PROCUREMENTS AND COMPETITION POLICY

FCC SPECTRUM AUCTION DATA (Starting with Auction 84)

TECHNICAL REPORT

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**Instructions on how to download and convert auction data from the FCC website:**

1. Create an empty folder and download full information round results files (save only files with the ending spreadsheet) from the FCC website.
2. In Microsoft Excel create a new Macro-Enabled Workbook called **MainBook**. In this workbook create 12 empty sheets. Open VBA editor (Alt+F11) and paste the code from simpleXlsMerger.txt file. In the code, change the path to a folder where all the spreadsheets from part 1 are saved. Execute the macro. Save MainBook as Excel Workbook (not macro-enabled).
3. Sort AUCTION\_ADMIN spreadsheet in **MainBook** by Round.
4. In Microsoft Excel create a new Workbook called **Items** in the same folder where **MainBook** has been saved. Copy there the spreadsheet called **Items** from the latest round of auction.
5. In Microsoft Excel create a new Workbook called **Bidders** in the same folder where **MainBook** has been saved. Copy there the spreadsheet called **Bidder\_Statistics** from the latest round of auction.
6. In Microsoft Excel create a new Macro-Enabled Workbook called **FinalBook**. In this workbook create 12 empty sheets. Open VBA editor (Alt+F11) and paste the code from SheetsReorganizer.txt file. **FinalBook** has to be saved in the same folder, where files **MainBook.xlsx, Items.xlsx and Bidders.xlsx** have been created**.** Execute the macro.
7. Check the correspondence of UPRFRONT\_PMNT and MINIMUM BID columns of Markets spreadsheet with Attachments to Procedures Public Notice, available on the FCC website.
8. Check the correspondence of UPRFONT\_PMNT column of Bidders spreadsheet with Attachments to Qualified Bidders or Winning Bidders Public Notices, available on the FCC website.
9. Format each spreadsheet in **FinalBook,** using format painter and excel file for one of the previous auctions on the CAPCP website.
10. Copy all spreadsheets from **FinalBook** and paste them to a new file. One way to do it: right-click a sheet tab, and then click **Select All Sheets** from the shortcut menu. Right-click a sheet tab, and then click Select **Move or Copy**. In a dialog window **To Book**, choose the name of a new file. **This step is recommended as it could substantially reduce the size of the final file!!!**

**Important:**

1. Sometimes when running SheetsReorganizer macro in FinalBook, the error **“an Excel been out of memory”** could appear. To overcome this problem, run few (but not all) subroutines of SheetsReorganizer in a time (can be done using breakpoints in VBA editor).
2. For auctions with many items and many rounds the above procedure should be slightly modified. First, one may need to separate all rounds spreadsheets into several groups (in each group rounds should be consecutive, say rounds 1-50 in the first group, 51-100 in the second and so on). Second, one needs to run the above procedure separately for each group (keep **Items** and **Bidders** excel files empty for all except the last group) and then merge all FinalBooks together using simpleXlsMerger macro. Uncomment subroutine Sheet2DeleteRows when running SheetsReorganizer macro.

**Hint:** this modification is needed only if the number of items times the number of rounds is larger than one million, but strongly recommended even if it is greater than half a million. Thus, the number of rounds in each group should be such that the number of items times the number of rounds was not larger than half a million

1. The macro simpleXlsMerger usually takes less than 10 min to execute. The macro SheetsReorganizer usually takes less than 15 min to execute. If any of the macros runs more than this estimated time, one may want to terminate the Excel and run the macro again.
2. If earlier than 2007 version of MS Office is used, macros simpleXlsMerger and SheetsReorganizer should be modified by replacing 1048576 with a number of rows supported by the version of MS Office in use. Point 2 then needs to be modified correspondingly.

**Important on data formats:**

Starting with Auction 84, the FCC reports data in a slightly different format. There are two types of changes: 1) spreadsheets use different shortcuts for the column names; columns are placed in a different order; and some columns are missing comparably with old format; 2) spreadsheets have different names; and some spreadsheets are missing while others are added.

Since format used by the FCC prior to Auction 84 provides information in a cleaner and a better structured way, the procedure described here reformats the round by round information to the old format. The difference between the two formats is described below. To prevent any further confusion I will refer to the format used by the FCC prior to Auction 84 as the CAPCP format (all up to date spectrum data is saved in this format on the CAPCP website) and to the format used by the FCC starting with Auction 84 as the FCC format. The full description of the CAPCP format and it’s comparison with FCC format is presented below.

**Table 1: AllBids** spreadsheet – provides information on all bids placed. Data in this spreadsheet is sorted by Round\_Number (column B), License\_Name (column C) and Bidder\_Name (column L).

|  |  |  |  |
| --- | --- | --- | --- |
| **Formats** | | | **Description** |
| **CAPCP** | **FCC** | |
| **Column** | **Spread Sheet** | **Column** |
| AUCTION\_NUMBER | ALL\_BIDS | AUCTION\_ID | Auction number |
| ROUND\_NUMBER | ALL\_BIDS | ROUND | Round number |
| LICENSE\_NAME | ALL\_BIDS | ITEM\_NAME | Name of item or license |
| MARKET | ALL\_BIDS | MARKET | Market abbreviation |
| FREQ\_BLOCK | ALL\_BIDS | BLOCK | Block |
| SUB\_MARKET | ALL\_BIDS | SUBMARKET | Submarket |
| BANDWITH\_MHZ |  |  | Bandwith |
| MARKET\_DESCR | ALL\_BIDS | ITEM\_DESCRIPTION | Market description |
| BID\_UNITS | MARKETS\* | BID\_UNITS | Bidding units corresponding to item or license |
| POPULATION |  |  | Population |
| FCC\_ACCT | ALL\_BIDS | BIDDER\_FRN | Bidder’s account number. The unique id number assigned for each bidder by the FCC |
| BIDDER\_NAME | ALL\_BIDS | BIDDER\_NAME | Bidder’s name |
| BID\_AMNT | ALL\_BIDS | BID\_AMOUNT | The amount of bid placed |
| NET\_BID\_AMNT | ALL\_BIDS | NET\_BID\_AMOUNT | The amount of money bidder needs to pay if wins a license |
| BIDDING\_CREDIT\_PCTG |  |  | The percentage discount applied to a bid amount in order to determine the net bid amount |
| THEDATE | ALL\_BIDS | DATE | The date bid was placed |
| THETIME | ROUNDS\* | THETIME | The time bid was placed |
| INCR\_BIDS | ALL\_BIDS | INCREMENTS\_OF\_BID | The number of increments corresponding to the bid placed |
| RANDOM\_NUMBER | ALL\_BIDS | SELECTION\_NUMBER | The random number assigned to each bidder by the FCC. In a case of a tie, the bidder with the highest random number wins |
| PROV\_WINNING |  |  | Equals to “TRUE” if the bid is a provisionally winning bid, “FALSE” otherwise |

**Table 1 (Continue):**

|  |  |  |  |
| --- | --- | --- | --- |
| **Formats** | | | **Description** |
| **CAPCP** | **FCC** | |
| **Column** | **Spread Sheet** | **Column** |
| WINNING |  |  | Equals to “TRUE” if the bid is a winning bid, “FALSE” otherwise |
| PREV\_BID\_AMNT | HIGHBIDS\* | PREV\_BID\_AMNT | The amount of the previous provisionally winning bid |
| REV\_BIDDER\_ACCT | HIGHBIDS\* | PREV\_BIDDER\_ACCT | The account of a bidder who placed the previous provisionally winning bid |
| ROUND\_WITHDR | WITHDRAWALS\* | ROUND\_NUMBER | The round at which the bid was withdrawn |
| MAX\_ELIG | ELIGIBILITY\* | MAX\_ELIG | Initial Eligibility. Eligibility is the maximum number of bidding units on which bidder may place bids |
| RMNG\_WAIVR | ELIGIBILITY\* | RMNG\_WAIVR | The number of remaining waivers |
| WAIVR\_IND | ELIGIBILITY\* | WAIVR\_IND | Waiver indicator, “A” for an “active” waiver and “P” for a “proactive” waiver |
| RMNG\_WITHDRAWALS | ELIGIBILITY\* | RMNG\_WITHDRAWALS | The number of remaining withdrawals allowed |
| REQUIRED\_ACT | ELIGIBILITY\* | REQUIRED\_ACT | Required activity level to be maintained in the next round. Activity level is the sum of the bidding units associated with items covered by the new and provisionally winning bids |
| CURRENT\_ACT | ELIGIBILITY\* | CURRENT\_ACT | The sum of the bidding units associated with items on which a bidder holds provisionally winning bids |

* Entries in blue color are missing in the FCC format and corresponding entries are left blank in CAPCP format;
* Entries in red color are missing in the FCC format and corresponding entries in the CAPCP format are filled using other available data. In particular, the entries with a star were taken from other spreadsheets in the CAPCP format. BIDDING\_CREDIT\_PCTG was recovered from BID\_AMNT and NET\_BID\_AMOUNT using formula: (NET\_BID\_AMOUNT - BID\_AMNT)/BID\_AMNT \*100%. PROV\_WINNING and WINNING were recovered using the spreadsheets HighBids and WinningBids respectively.

**Table 2: HighBids** spreadsheet – provides the information on provisionally winning bids placed by bidders (FCC excluded). Data in this spreadsheet is sorted by Round\_Number (column B) and License\_Name (column D). Item is a corresponding spreadsheet in the FCC format; THETIME is filled in using Rounds spreadsheet in the CAPCP format.

|  |  |  |
| --- | --- | --- |
| **Formats** | | **Description** |
| **CAPCP, Column Name** | **FCC, Column Name** |
| AUCTION\_NUMBER | AUCTION\_ID | Auction number |
| ROUND\_NUMBER | ROUND | Round at which bid is provisionally winning |
| LICENSE\_NAME | ITEM\_NAME | Name of item or license |
| MARKET | MARKET | Market abbreviation |
| FREQ\_BLOCK | BLOCK | Block |
| SUB\_MARKET | SUBMARKET | Submarket |
| FCC\_ACCT | PW\_BIDER\_FRN | Provisional winner’s account number. The unique id number assigned for each bidder by the FCC |
| BIDDER\_NAME | PW\_BIDDER | Provisional winner’s name |
| BID\_ROUND\_NUM | ROUND\_OF\_PWB | Round at which the bid was placed |
| BID\_AMNT | PWB\_AMOUNT | The amount of bid placed |
| NET\_BID\_AMNT | NET\_PWB\_AMOUNT | The amount of money bidder needs to pay if wins a license |
| BIDDING\_CREDIT\_PCTG | BIDDING\_CREDIT | The percentage discount applied to bid amount in order to determine the net bid amount |
| THEDATE | DATE | The date a bid was placed |
| THETIME | ROUNDS\*, THETIME | The time a bid was placed |
| NUM\_OF\_BIDS | NUMBER\_OF\_BIDS | The total number of bids placed on the item in the current round |
| INCR\_BIDS | INCREMENTS\_OF\_PWB | The number of increments corresponding to the provisionally winning bid placed |
| MIN\_ACCEPT | MAB | The minimum acceptable bid in the next round |
| BID\_INCR\_PCTG | BID\_INCREMENT\_PERCENTAGE | The bid increment percentage |
| MAB\_INCR | MAB\_INCREMENT | The amount by which the minimum acceptable bid in the next round is higher than the provisionally winning bid |

**Table 2 (Continue): HighBids** spreadsheet – provides information on the provisionally winning bids placed by the bidders (the FCC excluded). Data in this spreadsheet is sorted by Round\_Number (column B) and License\_Name (column D). Item is a corresponding spreadsheet in the FCC format.

|  |  |  |
| --- | --- | --- |
| **Formats** | | **Description** |
|  | |
| **CAPCP, Column Name** | **FCC, Column Name** |
| MAB\_INCR\_PCTG | MAB\_INCREMENT\_PERCENTAGE | The percentage by which the minimum acceptable bid in the next round is higher than provisionally winning bid |
| PREV\_BIDDER\_ACCT | PREVIOUS\_PW\_BIDDER\_FRN | Previous provisional winner’s account |
| ROUND\_PREV\_PWB | ROUND\_OF\_PREVIOUS\_PWB | Round at which previous provisionally winning bid was placed |
| PREV\_BID\_AMNT | PREVIOUS\_PWB\_AMOUNT | Previous provisionally winning bid |
| PREV\_BIDDING\_CREDIT\_PCTG | PREVIOUS\_BIDDING\_CREDIT | The percentage discount applied to previous bid amount in order to determine the previous net bid amount |
| PREV\_NET\_BID\_AMNT | PREVIOUS\_NET\_PWB\_AMOUNT | Previous provisionally winning net bid amount |
| ITEM\_ACTIVITY\_WEIGHT | ACTIVITY\_WEIGHT |  |
| MAB\_FLOOR | MAB\_FLOOR |  |
| MAB\_CEILING | MAB\_CEILING |  |

* For the relatively small auctions (number of items multiplied by number of rounds not exceeding 1 million) the provisionally winning bid on each license is reported for every round of the action. The number of rows in the spreadsheet equals to number of items times number of rounds plus one.
* For the relatively big auctions (number of items multiplied by number of rounds exceeding 1 million) the provisionally winning bid is reported only for a round at which the bid was actually placed.

**Table 3: Eligibility** spreadsheet – provides information on the bidder’s eligibility. Data in this spreadsheet is sorted by Round\_Number (column B) and Bidder\_Name (column D). Bidder\_Statistics is a corresponding spreadsheet in the FCC format.

|  |  |  |
| --- | --- | --- |
| **Formats** | | **Description** |
| **CAPCP** | **FCC** |
| AUCTION\_NUMBER | AUCTION\_ID | Auction number |
| ROUND\_NUMBER | ROUND | Round number |
| FCC\_ACCT | BIDDER\_FRN | Bidder’s account number. The unique id number assigned for each bidder by the FCC |
| BIDDER\_NAME | BIDDER\_NAME | Bidder name |
| NUM\_OF\_BIDS | NEW\_BIDS | The number of new bids placed by a bidder |
| TOTAL\_BIDS\_AMNT | TOTAL\_BID\_AMOUNT | The sum of all new bids placed by a bidder |
| TOTAL\_NET\_BIDS\_AMNT | TOTAL\_NET\_BID\_AMOUNT | The discounted sum of all bids placed by a bidder. The actual amount of money bidder will need to pay if new bids are the winning bids |
| PWBS\_NUMBER | NUMBER\_PWBS | The number of the provisionally winning bids placed by a bidder |
| PWBS\_AMNT | TOTAL\_PWB\_AMOUNT | The sum of all provisionally winning bids placed by a bidder |
| NET\_PWBS\_AMNT | TOTAL\_NET\_PWB\_AMOUNT | The discounted sum of all provisionally winning bids placed by a bidder |
| MAX\_ELIG | INITIAL\_ELIGIBILITY | Initial Eligibility. Eligibility is the maximum number of bidding units on which bidder may place bids |
| UNUSED\_ELIGIB | CURRENT\_ELIGIBILITY | Current Eligibility |
| REQUIRED\_ACT |  | Required activity level to be maintained in the next round. Activity level is the sum of the bidding units associated with the items covered by new and the provisionally winning bids |
| CURRENT\_ACT | CURENT\_ACTIVITY | The sum of the bidding units associated with items on which bidder holds provisionally winning bids |
| ADDTNL\_ACT\_REQ | ADDITIONAL\_ACTIVITY\_REQUIRED | Additional activity level required. The required sum of the bidding units associated with the new bids placed in the next round |
| AT\_RISK | AT\_RISK | The indicator of whether additional activity (placing new bids) is required from a bidder in the next round (Y for yes and N for no) in order to not lose his eligibility. Equals to N if and only if ADDTNL\_ACT\_REQ equals to zero |
| ELIG\_CHANGE | CHANGE\_IN\_ELIGIBILITY | The amount by which current eligibility was reduced in this round |
| RMNG\_WAIVR | WAIVERS\_REMAINING | The number of remaining waivers |
| WIAVR\_IND | WAIVER\_TYPE | Waiver indicator, “A” for an “active” waiver and “P” for a “proactive” waiver |
| RMNG\_WITHDRAWALS | WITHDRAWALS\_REMAINING | The number of the remaining withdrawals allowed |

REQUIRED\_ACTis recovered using formula:REQUIRED\_ACT **=** CURRENT\_ACT + ADDTNL\_ACT\_REQ

**Table 4: Withdrawals** spreadsheet – provides information on the bids that were withdrawn during the auction. Data in this spreadsheet is sorted by Round\_Number (column B) and License\_Name (column D). Withdrawn\_PWBS is a corresponding spreadsheet in the FCC format; THETIME is filled in using Rounds spreadsheet in the CAPCP format.

|  |  |  |
| --- | --- | --- |
| Formats | | Description |
| CAPCP, Column Name | FCC, Column Name |
| AUCTION\_NUMBER | AUCTION\_ID | Auction number |
| LICENSE\_NAME | ITEM\_NAME | Name of item or license |
| ROUND\_NUMBER | ROUND\_OF\_WITHDRWAL | Round at which bid was withdrawn |
| BID\_ROUND\_NUMBER | ROUND\_WITHDRAWN\_PWB\_PLACED | Round at which withdrawn bid was placed |
| FCC\_ACCT | BIDDER\_FRN | Bidder’s account number. The unique id number assigned for each bidder by FCC |
| BIDDER\_NAME | BIDDER\_NAME | Bidder’s name |
| BID\_AMNT | WITHDRAWN\_PWB\_AMOUNT | The amount of bid that was withdrawn |
| NET\_BID\_AMNT | WITHDRAWN\_NET\_PWB\_AMOUNT | The discounted amount of bid that was withdrawn. The actual amount would be paid in the event of winning |
| THEDATE | DATE | The date at which bid was withdrawn |
| THETIME | ROUNDS\*, THETIME | The time at which bid was withdrawn |
| MIN\_ACCEPT | MAB | The minimum acceptable bid in the next round |

**Table 5: Bidders** spreadsheet – provides information on the bidders that participated in the auction. Data in this spreadsheet is sorted by Bidder\_Name (column D). Bidder\_Statistics (the last round only) is a corresponding spreadsheet in the FCC format; BIDDING\_CREDIT\_PCTG is filled in using AllBids spreadsheet in the CAPCP format.

|  |  |  |
| --- | --- | --- |
| Formats | | Description |
| CAPCP, Column Name | FCC, Column Name |
| AUCTION\_NUMBER | AUCTION\_ID | Auction number |
| BIDDER\_NUMBER |  |  |
| BIDDER\_NAME | BIDDER\_NAME | Bidder’s name |
| FCC\_ACCT | BIDDER\_FRN | Bidder’s account number. The unique id number assigned for each bidder by the FCC |
| UPFRONT\_PMNT | INITIAL\_ELIGIBILITY | Upfront payment. Typically equals to the initial eligibility, but should be double checked with Attachments to Qualified Bidders or Winning Bidders Public Notices |
| BID\_UNITS | INITIAL\_ELIGIBILITY | The maximum number of bidding units on which bidder may place bids. It equals to the initial eligibility |
| BIDDING\_CREDIT\_PCTG | ALLBIDS\*, BIDDING\_CREDIT\_PCTG | The percentage discount applied to the bid amount in order to determine the net bid amount |
| PREF | BIDDING\_CREDIT | The indicator of whether bidder is eligible for some discount (Y for yes and N for no). Equals to N if and only if BIDDING\_CREDIT\_PCTG equals to zero |

**Table 6: Markets** spreadsheet – provides the information on items or licenses sold through the auction. Data in this spreadsheet is sorted by License\_Name (column D). Items (the last round only) is a corresponding spreadsheet in the FCC format

|  |  |  |
| --- | --- | --- |
| **Formats** | | **Description** |
| **CAPCP, Column Name** | **FCC, Column Name** |
| AUCTION\_NUMBER | AUCTION\_ID | Auction number |
| LICENSE\_NAME | ITEM\_NAME | Name of item or license |
| SERVICE\_CODE |  |  |
| MARKET | MARKET | Market abbreviation |
| FREQ\_BLOCK | BLOCK | Block |
| SUB\_MARKET | SUBMARKET | Submarket |
| CHANNEL\_NO |  | Channel number |
| MARKET\_DESC | ITEM\_DESCRIPTION | Market description |
| BANDWIDTH\_MHZ | SIZE\_MHZ | Bandwidth |
| OPEN |  |  |
| POPULATION |  | Population |
| BID\_UNITS | BIDDING\_UNITS | Bidding units corresponding to item or license |
| UPFRONT\_PMNT | BIDDING\_UNITS | Upfront payment corresponding to item or license. Typically equals to the Bidding Units, but should be double checked with Attachments to Procedures Public Notice |
| MINIMUM\_BID | BIDDING\_UNITS | The minimum acceptable bid. Typically equals to the Bidding Units, but should be double checked with Attachments to Procedures Public Notice |
| FREQUENCY |  |  |
| BLOCKS |  |  |
| CHANELS |  |  |
| COMMENTS | AUCTION\_DESCRIPTION | Auction description |
| PREV\_HIGH |  |  |
| PARTIAL\_MKT |  |  |

**Table 7: WinningBids** spreadsheet – provides information on the winning bids in the auction. Data in this spreadsheet is sorted by License\_Name (column B). Items (the last round only) is a corresponding spreadsheet in FCC format; THETIME is filled in using Rounds spreadsheet in the CAPCP format.

|  |  |  |
| --- | --- | --- |
| **Formats** | | **Description** |
| **CAPCP, Column Name** | **FCC, Column Name** |
| AUCTION\_NUMBER | AUCTION\_ID | Auction number |
| LICENSE\_NAME | ITEM\_NAME | Name of item or license |
| MARKET | MARKET | Market abbreviation |
| FREQ\_BLOCK | BLOCK | Block |
| SUB\_MARKET | SUBMARKET | Submarket |
| FCC\_ACCT | PW\_BIDDER\_FRN | The winning bidder’s account number. The unique id number assigned for each bidder by FCC |
| BIDDER\_NAME | PR\_BIDDER | Bidder’s name |
| BID\_ROUND\_NUM | ROUND\_OF\_PWB | The round number at which the winning bid was placed |
| BID\_AMNT | PWB\_AMOUNT | The amount of bid placed |
| NET\_BID\_AMNT | NET\_PWB\_AMOUNT | The actual amount of money the winning bidder needs to pay |
| THEDATE | DATE | The date at which the winning bid was placed |
| THETIME | ROUNDS\*, THETIME | The time at which the winning bid was placed |

**Table 8: Rounds** spreadsheet – provides general information on how each round of the auctions proceeded. Data in this spreadsheet is sorted by Round\_Number (column B). Round\_Statistics is a corresponding spreadsheet in the FCC format.

|  |  |  |
| --- | --- | --- |
| **Formats** | | **Description** |
| **CAPCP, Column Name** | **FCC, Column Name** |
| AUCTION\_NUMBER | AUCTION\_ID | Auction number |
| ROUND\_NUMBER | ROUND | Round number |
| THEDATE | ROUND\_START\_DATE\_TIME | The date at which round starts |
| THETIME | ROUND\_START\_DATE\_TIME | The time at which round starts |
| STAGE | STAGE | Stage of the auction |
| STAGE\_REQ | AUCTION\_ADMIN, REQUIRED\_ACTIVITY\_PERCENTAGE | The percentage of the current bidding eligibility on which a bidder needs to be active in order to maintain his bidding eligibility |
| STAGE\_TRANSIT\_PCTG | STAGE\_TRANSITION\_PERCENTAGE | The proxy to the percentage of licenses at which the provisionally winning bidder changed during the current round. Calculated as a ratio of Total Eligibility of Licenses on which the provisionally winning bidder was changed to Max Total Eligibility (the Sum of Bid Units over all licenses) |
| STAGE\_TRANSIT\_PCTG\_WO\_FCC | STAGE\_TRANSITION\_PERCENTAGE\_LESS\_FCC\_HELD | The proxy to the percentage of licenses at which the provisionally winning bidder changed during current round. In calculations, the licenses held by FCC are excluded |
| NUM\_OF\_BIDS | NEW\_BIDS | Number of the new bids placed during round |
| ELIGIB\_BIDDERS | ELIGIBLE\_BIDDERS | The number of eligible bidders in the current round |
| ELIGIBILITY\_RATIO | ELIGIBILITY\_RATIO | The proxy to how many bidders on average bid on each license. Could be calculated as a ratio of Unused Total Eligibility to Max Total Eligibility. Here, Unused Total Eligibility is the sum of current eligibility over all bidders and Max Total Eligibility is the sum of Bid Units over all licenses |
| ELIGIBILITY\_RATIO\_WO\_FCC | ELIGIBILITY\_RATIO\_LESS\_FCC\_HELD | The proxy to how many bidders on average bid on each license not currently held by FCC. The formula is the same as for Eligibility Ratio, but when calculating Max Total Eligibility, the sum is taken over all licenses not held by the FCC |
| PWBS\_NUMBER | NUMBER\_PWBS | Number of items covered by the provisionally winning bidders (not FCC) |
| FCC\_LICENSES | FCC\_HELD\_LICENSES | Number of licenses held by the FCC |
| PWBS\_AMNT | TOTAL\_PWB\_AMOUNT | The sum of all provisionally winning bids |
| NET\_PWBS\_AMNT | TOTAL\_NET\_PWB\_AMOUNT | The net sum of the provisionally bidding amounts across all licenses. The revenue that will be collected by FCC if auction ends in this round |
| CHNG\_PWB\_BIDS | DOLLAR\_CHANGE\_IN\_PWB\_AMOUNT | The dollar change in the sum of the provisionally winning bids |
| CHNG\_NET\_PWB\_BIDS | DOLLAR\_CHANGE\_IN\_NET\_PWB\_AMOUNT | The dollar change in the net sum of the provisionally winning bids |
| PWB\_CHANGE\_PCTG | PERCENTAGE\_CHANGE\_IN\_PWB\_AMOUNT | The percentage change in the sum of the provisionally winning bids |
| NET\_PWB\_CHANGE\_PCTG | PERCENTAGE\_CHANGE\_IN\_NET\_PWB\_AMOUNT | The percentage change in the net sum of the provisionally winning bids |
| TOTAL\_BIDS\_AMNT |  |  |
| TOTAL\_NET\_BIDS\_AMNT |  |  |
| CHNG\_TOTAL\_BIDS |  |  |
| CHNG\_NET\_BIDS |  |  |
| BIDDERS\_AT\_RISK | BIDDERS\_AT\_RISK | The total number of bidders that are at risk to lose their eligibility in the next round |
| NUMBER\_REDUCED | NUMBER\_OF\_BIDDERS\_THAT\_REDUCED | Number of bidders that reduced their eligibility |
| BU\_REDUCED | BIDDING\_UNITS\_REDUCED | The total number of bidding units reduced |
| BID\_UNITS\_PCTG | PERCENTAGE\_OF\_COVERED\_BIDDING\_UNITS | The percentage of licenses covered by the provisionally winning bidders (weighted by bidding units) |
| PROACTIVE\_WAIVERS\_USED | PROACTIVE\_WAIVERS\_USED | The indicator of whether proactive waivers were used during round |
| NUM\_WITHDR\_BIDS | WITHDRAWN\_BIDS | The number of the withdrawn bids |
| NUM\_DROP\_BIDS | DROPPED\_BIDS | The number of the dropped bids |

**Table 9: Increments** spreadsheet – provides general bidding statistics. Data in this spreadsheet is sorted by Round\_Number (column B). Increment\_Statistics is a corresponding spreadsheet in the FCC format.

|  |  |  |
| --- | --- | --- |
| **Formats** | | **Description** |
| **CAPCP, Column Name** | **FCC, Column Name** |
| AUCTION\_NUMBER | AUCTION\_ID | Auction number |
| ROUND\_NUMBER | ROUND | Round number |
| INCR\_1 | INCREMENT\_1 | Total number of bids that equal to the minimum acceptable bid |
| INCR\_2 | INCREMENT\_2 | Total number of bids that equal to the second acceptable bid |
| INCR\_3 | INCREMENT\_3 | Total number of bids that equal to the third acceptable bid |
| INCR\_4 | INCREMENT\_4 | Total number of bids that equal to the forth acceptable bid |
| INCR\_5 | INCREMENT\_5 | Total number of bids that equal to the fifth acceptable bid |
| INCR\_6 | INCREMENT\_6 | Total number of bids that equal to the sixth acceptable bid |
| INCR\_7 | INCREMENT\_7 | Total number of bids that equal to the seventh acceptable bid |
| INCR\_8 | INCREMENT\_8 | Total number of bids that equal to the eighth acceptable bid |
| INCR\_9 | INCREMENT\_9 | Total number of bids that equal to the ninth acceptable bid |

**Table 10: WaiverStatistics** spreadsheet – provides the waivers statistics. Data in this spreadsheet is sorted by Round\_Number (column B) and FCC\_ACCT (column C). Waivers is a corresponding spreadsheet in the FCC format

|  |  |  |
| --- | --- | --- |
| **Formats** | | **Description** |
| **CAPCP, Column Name** | **FCC, Column Name** |
| AUCTION\_NUMBER | AUCTION\_ID | Auction number |
| ROUND\_NUMBER | ROUND | Round number at which waiver was used |
| FCC\_ACCT | BIDDER\_FRN | Bidder’s account number. The unique id number assigned for each bidder by the FCC |
| WAIVR\_IND | WAIVER\_TYPE | Waiver indicator, “A” for “active” waiver and “P” for proactive waiver |
| RMNG\_WAIVR | WAIVERS\_REMAINING | The number of remaining waivers |

**Table 11: RaisingOwnHigh** spreadsheet – provides information on bidders who raised their own high bids. Data in this spreadsheet is sorted by Round\_Number (column B), License\_Name (column C) and FCC\_ACCT (column D). Bidder\_Raising\_Own\_PWB is a corresponding spreadsheet in FCC format; THETIME is filled in using Rounds spreadsheet in CAPCP format.

|  |  |  |
| --- | --- | --- |
| **Formats** | | **Description** |
| **CAPCP, Column Name** | **FCC, Column Name** |
| AUCTION\_NUMBER | AUCTION\_ID | Auction number |
| ROUND\_NUMBER | ROUND | Round number at which bidder raised his own high bid |
| LICENSE\_NAME | ITEM\_NAME | The name of item or license |
| FCC\_ACCT | BIDDER\_FRN | Bidder’s account number. The unique id number assigned for each bidder by the FCC |
| INC\_BIDS | INCREMENTS\_OF\_BIDS | The number of increments corresponding to the bid placed |
| BID\_AMNT | BID\_AMOUNT | The amount of bid placed |
| NET\_BID\_AMNT | NET\_BID\_AMOUNT | The amount of money bidder needs to pay if wins a license |
| THEDATE | DATE | The date at which bid was placed |
| THETIME | ROUND\*, THETIME | The time at which bid was placed |

**Table 12: BiddersReduced** spreadsheet – provides information on the bidders who reduced their current eligibility requirements. Data in this spreadsheet is sorted by Round\_Number (Column B) and FCC\_ACCT (Column D). Bidders\_That\_Reduced is a corresponding spreadsheet in the FCC format

|  |  |  |
| --- | --- | --- |
| **Formats** | | **Description** |
| **CAPCP, Column Name** | **FCC, Column Name** |
| AUCTION\_NUMBER | AUCTION\_ID | Auction number |
| ROUND\_NUMBER | ROUND | Round at which bidder reduced his (her) eligibility |
| FCC\_ACCT | BIDDER\_FRN | Bidder’s account number. The unique id number assigned for each bidder by FCC |
| BU\_REDUCED | BIDDING\_UNITS\_REDUCED | Number of bidding units by which eligibility was reduced |
| UNUSED\_ELIG | CURRENT\_ELIGIBILITY | Current eligibility. Eligibility is the maximum number of bidding units on which bidder may place bids |