

AUCTION 105 BIDDER DATA FILE FORMATS

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1 Introduction

This document provides the data file specifications for the FCC Auction Bidding System upload and download files that will be available to bidders during Auction 105. Each file specification includes the format of the file and definitions of the data elements in the files including a name, description, data type, examples and notes. Data type definitions and notation rules are explained in an appendix attached to this document.

In addition to the data file specifications, sample files are available on the Auction 105 website (www.fcc.gov/auction/105) in the Education section. Sample files are provided for Round 1 and Round 2. The files for Round 2 include examples where bids could not be processed in part or in full. We emphasize that the sample data provided is not meant to reflect any predictions or assumptions by the Commission regarding bidding activity, the number of rounds, or the outcome of the Auction 105.

2 Bidder Download Files

This section provides the specifications of the bidding-related download files available to bidders during the auction.

2.1 My Counties

File name: my_counties.csv

The My Counties file provides information about each county available in the auction. It indicates whether a bidder has selected the county on its Form 175 application.

File Structure:

- CSV file (first row contains header)
- One record for each bidder for each county available in the auction

Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number for this auction	String	105 105-Mock
bidder	Qualified bidder name	String	Alpha Bidding Company
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0003645843
county	County ID	String ([StateID]-[0-9]{3})	AL-123
county_name	County name	String	"Tallapoosa, AL"

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Field	Description	Data Type	Examples/Notes
census_id	This is the FIPS ID for the county: 2-character state FIPS code followed by 3-character county FIPS code	String	01123
selected_county	Indicates if the company selected to bid for the county in its Form 175	String [Y N]	Y N
bidding_by_cma	Not used in Auction 105 – value is always “N”	String [N]	N
cma	Not used in Auction 105	n/a	Null
cma_name	Not used in Auction 105	n/a	Null

2.2 Sample Bid Template Files

File name:

(# = round number)

	Round 1	Round 2+
• my_bid_template_with_my_markets_round_#.csv	Yes	Yes
• my_bid_template_with_submitted_bids_round_#.csv	Yes	Yes
• my_bid_template_with_missing_bids_round_#.csv	No	Yes
• my_bid_template_with_default_bids_round_#.csv	No	Yes

There are four different bid template files available to bidders. The first two templates, My Markets Template and Submitted Bids Template, exist for all rounds. The last two templates, Default Bids Template and Missing Bids Template, exist for Round 2 and later.

Each template provides a list of markets to bid on. The list of markets, and the default quantity and price will vary, depending on which template is used. The template provides a starting point for the bidder. A bidder can adjust the contents, as appropriate.

Definitions of templates:

Template	File Name	Markets Included	Quantity and Price
My Markets Template	my_bid_template_with_my_markets_round_#.csv	All markets the bidder selected in its FCC Form 175	Null
Submitted Bids Template	my_bid_template_with_submitted_bids_round_#.csv	All markets the bidder selected in its FCC Form 175. If a bidder placed multiple bids for a market, then there will be multiple bids in this template	The submitted bids quantities and prices for markets that have bids; otherwise, null
Default Bids Template	my_bid_template_with_default_bids_round_#.csv	All markets for which the bidder has processed demand	Quantity = processed demand Price = clock price

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Template	File Name	Markets Included	Quantity and Price
Missing Bids Template	my_bid_template_with_missing_bids_round_#.csv	All markets for which the bidder has processed demand but has not yet submitted a bid in the round	Null

File Structure:

- CSV file (first row contains header)
- The number of rows depends on the template. See the table above.

Field	Description	Data Type	Examples/Notes
MARKET	County ID	String ([StateID]-[0-9]{3})	AL-123
QUANTITY	Quantity associated with the bid (in blocks)	Integer	2 <i>Null if no bid has been submitted for this market</i> <i>Null in the My Markets Template download</i>
PRICE	Price associated with the bid (per block)	Integer with optional thousands separator Or "DELETE"	3500000 "35,000,000" DELETE DELETE indicates all bids for this market should be deleted. This is not case sensitive. <i>Null if no bid has been submitted for this market</i> <i>Null in the My Markets Template download</i>
round	Round number	Integer	12
price_point	The price point associated with the bid	Decimal [0-1] {10}	0.7560548272 <i>In Round 1 this value is 1.0000000000 if a bid was submitted for this market.</i> <i>Null if no bid has been submitted for this market</i> <i>Null in the My Markets Template download</i>

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Field	Description	Data Type	Examples/Notes
missing_bid	A flag indicating a market where the bidder had processed demand in the last round but did not have any bids in the current round at the time of the download	String [Y] {1}	Y <i>Null for a market where the bidder did not have processed demand last round</i> <i>Null for a market where the bidder had processed demand last round and has at least one submitted bid in this round</i> <i>Null in the My Markets Template download</i> <i>Null in the Default Bids Template download</i>
market_name	The county name and postal abbreviation for the state	String	"Tallapoosa, AL"
population	Population of the market	Integer	25237061
bidding_units	Bidding units per block in the market	Integer	2300
supply	The number of generic blocks of spectrum available in the market	Integer	7
previous_round_aggregate_demand	The aggregate demand from the previous round for the market	Integer	12 <i>Null for Round 1</i>
previous_round_processed_demand	The bidder's processed demand for the market at the start of the round	Integer	4 <i>Null for Round 1</i> <i>Null if this bidder does not have processed demand for this market at the start of the round</i>
start_of_round_price	Posted price per block for the market after processing the previous round's bids. This is the minimum bid price in the current round.	Integer	3000000 <i>For Round 1, this is the opening price</i>

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Field	Description	Data Type	Examples/Notes
clock_price	The clock price (highest price) per block of the market in the current round	Integer	4000000 <i>For Round 1, this is the opening price</i>

2.3 My Bidding Errors

File name: my_bidding_errors_round_#.csv (# = round number)

This file contains a detailed account of errors from the last time the bidder’s upload had errors, or a quick action (deleting all bids or submitting default bids) was not successful. Up to 50 errors will be reported for an unsuccessful upload or quick action.

This file is available if the last upload or quick action was unsuccessful. It is not available if the last action was a successful upload, if the last quick action was successful (deleting all bids or submitting default bids), if the next round’s prices have been announced, or if the auction concludes.

File Structure:

- CSV file (first row contains header)
- The number of rows depends on the number of errors

Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number for this auction	String	105 105-Mock
round	Round number of upload	Integer	11
bidder	Qualified bidder name	String	AT&T
frn	Bidder ID. Uniquely identifies a bidder and is the qualified bidder’s FCC Registration Number.	String [0-9]{10}	“0003645843”
line_no	Line number containing the error	Integer	102 <i>Null if error is not specific to a row</i>
error_code	Error code	String	E100
error_description	Error description	String	MARKET is missing or invalid
MARKET	The county ID entered	String ([StateID]-[0-9]{3})	AL-123 <i>Null if error is not specific to a row</i>
QUANTITY	Number of blocks specified in the bid	Integer	2 <i>Null if error is not specific to a row</i>

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Field	Description	Data Type	Examples/Notes
PRICE	Price per block specified in the bid	Integer Or "DELETE"	3500000 DELETE <i>Null if error is not specific to a row</i>
market_name	The county name and postal abbreviation for the state	String	"Tallapoosa, AL" <i>Null if MARKET is invalid or error is not specific to a row</i>
previous_round_processed_demand	The bidder's processed demand for the market at the start of the round	Integer	4 <i>Null if this bidder does not have processed demand for this market at the start of the round</i> <i>Null if MARKET is invalid or error is not specific to a row</i>
start_of_round_price	Posted price per block for the market after processing the previous round's bids. This is the minimum bid price in the current round.	Integer	3000000 <i>For Round 1, this is the opening price.</i> <i>Null if MARKET is invalid or error is not specific to a row</i>
clock_price	The clock price (highest price) per block of market in the current round.	Integer	4000000 <i>For Round 1, this is the opening price</i> <i>Null if MARKET is invalid or error is not specific to a row.</i>
upload_filename	Name of file that the bidder uploaded	String	Sample_bid1.csv
placed_by	Name of authorized bidder who submitted the uploaded bid	String	Karen Smith
placed_time	The time the uploaded bid was submitted	String YYYY-MM-DD HH:MM:SS	2015-12-04 13:21:47 <i>All times are in Eastern Time</i>

2.4 My Bids

File name: my_bids_round_#.csv (# = round number)

The My Bids file provides a list of all the bids considered by the bidding system for a bidder in a round, including bids that were submitted so far in an open round. Each bid pertains to a specific market (county) being offered in the clock auction. Note that the file does not contain bids that were submitted and subsequently modified within the same round, rather the file contains the list of bids the bidding system is currently considering or did consider for that bidder in the associated round.

In addition to providing information about the bid and the authorized bidder who submitted the bid, the file provides information about the associated market in that round such as the start of round price, the clock price, the supply, and the bidder’s processed demand for that market.

File Structure:

- CSV file (first row contains header)
- One record per round and bid combination
- After the results of a round have been posted, this file may also contain missing bids submitted by the bidding system. A missing bid is a simple bid for a quantity of 0 at the lowest possible price for the market in that round.
- The file contains data for a given round

Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number for this auction	String	105 105-Mock
round	Round number	Integer	12
bidder	Qualified bidder name	String	Alpha Bidding Company
frn	The bidder’s FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0003645843
market	County ID	String ([StateID]-[0-9]{3})	AL-123
market_name	The county name and postal abbreviation for the state	String	“Tallapoosa, AL”
bidding_units	Bidding units per block in the market	Integer	2300
quantity	Quantity associated with the bid	Integer	2 <i>This value is the requested quantity for the market (not the number of blocks to be reduced)</i>
price	Price per block associated with the bid	Integer	125000

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Field	Description	Data Type	Examples/Notes
price_point	The price point associated with the bid	Decimal [0-1] {10}	0.7560548272 <i>In Round 1 this value is 1.0000000000</i>
supply	The number of generic blocks of spectrum available in the market	Integer	7
previous_round_processed_demand	The bidder's processed demand for the market at the start of the round	Integer	4 <i>Null for Round 1</i>
previous_round_aggregate_demand	The aggregate demand from the previous round for the market	Integer	12 <i>Null for Round 1</i>
start_of_round_price	Posted price per block for the market after processing the previous round's bids. This is the minimum bid price in the current round.	Integer	11500000 <i>For Round 1, this is the opening price</i>
clock_price	The clock price (highest price) per block of the associated market in the round	Integer	12650000
selection_number	The pseudo-random number associated with the bid used for tie-breaking purposes	Integer {1, 15}	123456789012345 <i>This field is populated after the round closes</i>
placed_by	Name of authorized bidder or "System" if the bidding system submitted a missing bid	String	Joe Smith System
placed_time	The time the uploaded bid was submitted	String YYYY-MM-DD HH:MM:SS	2015-12-04 13:21:47 <i>All times are in Eastern Time.</i> <i>The time will be the round close time if placed_by = System</i>

2.5 My Bid Results

File name: my_bid_results_round_#.csv (# = round number)

The My Bid Results file provides a list of the results of bid processing in a given round for all markets in which the bidder either had processed demand from the round before the given round or placed a bid for a new market in the given round. For each market the file gives the processed demand, posted price

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and the aggregate demand. Additionally, if a bid was not fully accepted, the file provides an indication of such and details about why one or more bids for the market were not accepted.

The data pertaining to bidding results for a given round is available once the round results for that round have been posted.

File Structure:

- CSV file (first row contains header)
- One record for each round and market combination where the bidder had processed demand for the market from the round before the given round or placed a bid for a new market in the given round.
- The file contains data for a given round which has been posted.

Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number for this auction	String	105 105-Mock
round	Round number	Integer	12
bidder	Qualified bidder name	String	Alpha Bidding Company
frn	The bidder’s FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0003645843
market	County ID	String ([StateID]-[0-9]{3})	AL-123
market_name	The county name and postal abbreviation for the state	String	“Tallapoosa, AL”
processed_demand	The bidder’s demand for the market after processing	Integer	2
fully_processed_flag	Indication if all bids for the market were fully processed	String [Y N] {1}	Y N

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Field	Description	Data Type	Examples/Notes
processed_demand_detail	Details about why one or more bids for the market were not accepted or not fully accepted during bid processing	String {500}	<p>“Bid to increase demand to 4 @ \$147,000,555: 2 blocks were not applied due to insufficient eligibility.”</p> <p>“Bid to reduce demand to 0 @ \$36,600,222: 3 blocks were not applied due to insufficient aggregate demand.”</p> <p>“Bid to reduce demand to 0 @147,000,555: 3 blocks were not applied for county due to (1) insufficient aggregate demand, and (2) one block reduction already being applied.”</p> <p><i>If more than one detail message is applicable (e.g., intra-round bids), then the messages are separated with semi-colons</i></p> <p><i>Null if all bid(s) for the market were fully accepted</i></p>
bidding_units	Bidding units per block in the county	Integer	2300
supply	The number of generic blocks of spectrum available in the market	Integer	7
aggregate_demand	The aggregate demand for the market after processing	Integer	15
posted_price	Posted price per block for the market after processing the bids from this round. This will be the minimum bid price in the next round.	Integer	3000000

2.6 My County Status

File name: my_county_status_round_#.csv (# = round number)

The My County Status file provides the status of each county after bid processing in a round. For each county that the bidder selected in Form 175, the file gives the posted price, aggregate demand and the clock price in the next round. Additionally, the file provides supporting information about each county the supply, bidding units, and population. The public County Status file that will be available in the Public Reporting System at <https://auctiondata.fcc.gov> will include all counties in the auction.

The data pertaining to aggregate demand and posted price for a given round is available once the round results for that round have been posted. Information pertaining to next round clock prices is available in the file once the next round has been announced.

File Structure:

- CSV file (first row contains header)
- One record for each round and county combination, where the counties are those that the bidder selected in Form 175
- The file contains data for a given round that has been posted. It is updated when prices are announced.

Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number for this auction	String	105
round	Round number	Integer	12
county	County ID	String ([StateID]-[0-9]{3})	AL-123
county_name	County Name	String	"Tallapoosa, AL"
cma	Not used for Auction 105	n/a	Null
cma_name	Not used for Auction 105	n/a	Null
census_id	This is the FIPS ID for the county: 2-character state FIPS code followed by 3-character county FIPS code	String	01123
population	Population of the county	Integer	25237061
bidding_units	Bidding units per block in the county	Integer	2300

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Field	Description	Data Type	Examples/Notes
supply	The number of generic blocks of spectrum available in the county	Integer	7
start_of_round_price	Posted price per block for the market after processing the previous round's bids. This is the minimum bid price in the current round.	Integer	2000000 <i>For Round 1, this is the opening price</i>
clock_price	The clock price (highest price) per block of the associated market in the round.	Integer	3000000 <i>The clock_price can be higher than the posted price for the round</i>
aggregate_demand	The aggregate demand for the county after processing	Integer	15 <i>Null prior to posting results for Round 1</i>
posted_price	Posted price per block for the county after processing the bids from this round. This will be the minimum bid price for the county in the next round.	Integer	3000000 <i>Null prior to posting results for Round 1</i>
next_round_clock_price	The clock price per block (highest price) of county in the next round	Integer	5000000 <i>Null if next round has not yet been announced</i> <i>Null if auction has concluded</i>

2.7 My Bidder Status

File name: my_bidder_status_round_#.csv (# = round number)

The My Bidder Status file provides information related to a bidder for a round. This includes information pertaining to eligibility, activity, and financial totals for requested commitments and processed commitments.

The data pertaining to the bidder's eligibility is available in the file once the round has been announced. The data pertaining to a bidder's bids is available in the file once the round is open for bidding. The data pertaining to the bidder's results for a round is available in the file once the round results for that round have been posted. Information pertaining to next round's eligibility, activity upper limit and required activity is available in the file once the information for the next round has been announced.

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File Structure:

- CSV file (first row contains header)
- One record for each round and bidder combination
- The round-specific csv contains one record for the bidder for the round. This record is updated when bids are entered, when the round is posted, and when the next round is announced.

Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number for this auction	String	105 105-Mock
round	Round number	Integer	12
bidder	Qualified bidder name	String	Alpha Bidding Company
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0003645843
bidding_credit	The bidding credit percentage associated with the bidder <i>0 = no bidding credit</i> <i>15 = 15% bidding credit</i>	Integer [0 15 25]	0 15 25
bidding_credit_type	Indicates the type of bidding credit that the bidder is eligible to receive Rural = bidder is eligible for the rural service provider bidding credit Small Business = bidder is eligible for the small business bidding credit	String [Rural Small Business]	Small Business Rural <i>Null if the bidder is not eligible for a bidding credit</i>
eligibility	The bidder's eligibility in bidding units at the start of round	Integer	8000000
activity_upper_limit	The bidder's maximum activity that it can submit for the round	Integer	10000000 <i>For Round 1, activity_upper_limit = eligibility</i>
required_activity	The bidder's required activity in bidding units for the round	Integer	5000000

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Field	Description	Data Type	Examples/Notes
activity	The bidder's bidding activity in bidding units for the round	Integer	4000000 <i>Updated during round</i>
requested_commitment	The bidder's requested commitment in dollars for the round	Integer	346000000 <i>Updated during round</i>
requested_commitment_discount	The bidder's requested discount in dollars for the round based on any bidding credits and applying any applicable bidding credit caps	Integer	10000000 <i>Updated during round</i> <i>Null if the bidder is not eligible for a bidding credit</i>
requested_net_commitment	The bidder's requested net commitment in dollars for the round	Integer	336000000 <i>Updated during round</i> <i>Null if the bidder is not eligible for a bidding credit</i>
requested_commitment_discount_uncapped	The bidder's requested discount in dollars for the round based on any bidding credits without applying any applicable bidding credit caps	Integer	16000000 <i>Updated during round</i> <i>Null if the bidder is not eligible for a bidding credit</i>
requested_commitment_discount_uncapped_small	The bidder's requested discount in dollars for the round in the small markets based on any bidding credits without applying any applicable bidding credit caps	Integer	11000000 <i>Updated during round</i> <i>Contains a value if the bidder is eligible for the small business bidding credit; otherwise, null</i>
processed_activity	The bidder's bidding activity in bidding units after processing	Integer	4100000 <i>Null if the round results have not yet been posted</i>
commitment	The bidder's commitment in dollars for the round	Integer	348500000 <i>Null if the round results have not yet been posted</i>

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Field	Description	Data Type	Examples/Notes
commitment_discount	The bidder's discount in dollars for the round based on any bidding credits and applying any applicable bidding credit caps	Integer	10000000 <i>Null if the bidder is not eligible for a bidding credit</i> <i>Null if the round results have not yet been posted</i>
net_commitment	The bidder's net commitment in dollars for the round	Integer	338500000 <i>Null if the bidder is not eligible for a bidding credit</i> <i>Null if the round results have not yet been posted</i>
commitment_discount_uncapped	The bidder's discount in dollars for the round based on any bidding credits without applying any applicable bidding credit caps	Integer	15900000 <i>Null if the bidder is not eligible for a bidding credit</i> <i>Null if the round results have not yet been posted</i>
commitment_discount_uncapped_small	The bidder's discount in dollars for the round in the small markets based on any bidding credits without applying any applicable bidding credit caps	Integer	11900000 <i>Null if the bidder is not eligible for a small business bidding credit</i> <i>Null if the round results have not yet been posted</i>
next_round_eligibility	The bidder's eligibility in bidding units at the start of the next round	Integer	5125000 <i>Null if the next round has not been announced</i> <i>Null in final round</i>
next_round_activity_upper_limit	The bidder's maximum activity that it can submit for the next round	Integer	5300000 <i>Null if the next round has not been announced</i> <i>Null in final round</i>

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Field	Description	Data Type	Examples/Notes
next_round_required_activity	The bidder's required activity in bidding units for the next round	Integer	4100000 <i>Null if the next round has not been announced</i> <i>Null in final round</i>

2.8 My Audit Log

File name: my_audit_log_round_#.csv (# = round number)

The My Audit Log file is available on the Downloads screen. It is also available from the Place Bids screen after a bid upload or quick action submission.

File Structure:

- CSV file (first row contains header)
- One record for each audit log entry that corresponds to bidding

Field	Description	Data Type	Examples/Notes
log_entry_time	Time of event	Date/Time	2015-12-04 13:21:47 <i>All times are in Eastern Time</i>
round	Round number	Integer	12
round_state	Round state	String	Open Closed Calculated
category	category/ activity	String	Bid Bid.Batch

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Field	Description	Data Type	Examples/Notes
subcategory	Activity for an upload /quick action or the upload audit log (“Bid.Batch”); or with a bid (“Bid”)	String	<i>Examples when category = Bid</i> Bid.Add Bid.Modify.Add Bid.Modify.Delete Bid.Delete Bid.Missing.Add (missing bid) <i>Examples when category = Bid.Batch</i> Default.Submit Default.Fail Default.Success Delete.Submit Delete.Fail Delete.Success Upload.Submit Upload.Fail Upload.Success Clear.Error Clear.Success
user	User performing action	String	Joe Smith System
bidder	Bidder name (if applicable)	String	1234567890 (Alpha Bidding Company) <i>FRN and (full name)</i>
market	Identifies the market	String	AL-123 <i>Can be null</i>
details	Descriptive text	String	Price: \$13,000 (6.16666667%); Quantity 3.

3 Bid Upload Process

In Round 1, a bidder can place bids by doing the following: download a sample template file such as My Markets Template, enter the quantities requested for each market, and upload the file to the bidding system. Alternatively, a bidder can produce a properly formatted upload file using an external system, and upload that file to the auction software.

Starting with Round 2, a bidder may simply upload its Default Bids Template for a round if it wishes to submit the default bids for each of its markets. The default bid for a market for a given round is a simple bid for a quantity equal to the bidder’s processed demand from the previous round at a price equal to the clock price for that market in the given round. Default bids can also be submitted using a Submit Default Bids “Quick Actions” button.

If a bidder does not want to submit default bids, it may download one of the other bid template files, modify it, and upload it to the bidding system. Or, it may upload a file produced by an external system, similar to Round 1.

Bid upload files will not be partially accepted. That is, if there are any errors in the bid upload file, the file will be rejected in its entirety. If the bid upload file contains one or more errors and is therefore rejected, the bidding system will display the errors on the bidding screen and the bidder may then edit the file and upload it again. Any bids that were successfully uploaded before the bad upload still exist.

All bid uploads are cumulative. If a bidder submits a bid for counties 1, 2, 3 and subsequently submits a bid for 3, 4, and 5, the end result is a bid for 1, 2, 3, 4, and 5.

If a bidder has more than one bid for a county for that round (Round 2 or later), a subsequent upload for that county will replace all bids for the county for the round.

The file specifications and criteria for rejection of a bid upload file are given below.

3.1 File Requirements – Round 1

- The upload file must be in CSV format. A particular file name is not required.
- The following fields are required, all others are ignored:
 - Market (column header “MARKET”)
 - Quantity (column header “QUANTITY”)
 - Price (column header “PRICE”)
- A bid upload will be rejected in its entirety if any of the following occur:
 - Column headers for the required fields are missing or invalid
 - Column headers for the required fields must be in the order as “MARKET,QUANTITY,PRICE”
 - The file contains blank lines between markets
 - A bid was submitted for an invalid county ID
 - A bid was submitted for a county that that bidder did not select on its Form 175
 - A bid was submitted for a market with a quantity that is not a whole number greater than 0 and less than or equal to the supply of the market
 - A bid was submitted for a market with a price not equal to the Round 1 price; or in the case of a delete of a bid for a particular county, not equal to “delete” or “DELETE”
 - A bid was submitted with a price equal to “delete” or “DELETE” but no prior bid exists to delete
 - The sum of the bidding units for the quantities bid exceeds the bidder’s initial eligibility

3.2 File Requirements – Round 2 and Later

- The upload file must be in CSV format. A particular file name is not required.
- The following fields are required, all others are ignored:
 - Market (column header “MARKET”)
 - Quantity (column header “QUANTITY”)
 - Price (column header “PRICE”)

- A bid upload will be rejected in its entirety if any of the following occur:
 - Column headers for the required fields are missing or invalid
 - Column headers for the required fields must be in the order as “MARKET,QUANTITY,PRICE”
 - The file contains blank lines between markets
 - A bid was submitted for an invalid county ID
 - A bid was submitted for a county that that bidder did not select on its Form 175
 - A bid was submitted for a market with a quantity that is not a whole number greater than or equal to 0 and less than or equal to the supply of the market
 - A bid was submitted for a market with a bid amount that was not between the previous round’s posted price and the current clock price; or in the case of a delete of a bid for a particular county, not equal to “delete” or “DELETE”
 - A bid was submitted with a price equal to “delete” or “DELETE” but no prior bid exists to delete
 - A bid was submitted for a market with a quantity equal to the market’s processed demand from the previous round but for a bid amount other than the clock price for the market in the current round
 - A bid was submitted for a market with the same quantity as was specified at a different price for that market
 - Multiple bids were submitted for a market such that when the bids were sorted in ascending order by bid amount, the requested quantities were not all increasing or all decreasing
 - The sum of the bidding units for the quantities bid exceeds the bidder’s round eligibility
 - The bidding activity associated with the set of bids in the bid upload file exceeds the bidder’s upper limit for the round

Appendix: Data Type Definitions

The following is a guide to interpreting data types defined in this document. This guide is based on regular expressions used in XML standards.

Valid Data Types used in this Document

Character: A character is a single standard ASCII character. The following list has examples of valid ASCII characters:

- a
- D
- 3
- %

String: A string contains one or more characters and can contain spaces. The following list has examples of valid strings:

- AL-123
- 005

- “Tallapoosa, AL”

Note that strings containing a comma that are included in a CSV formatted file need to include quotation marks around them. In the above example, “Tallapoosa, AL” would be the correct format for the string in a CSV file.

Decimal: The Decimal data type is used to specify a number that may optionally contain a fractional portion.

The following list has examples of valid Decimals:

- 123.45
- -0.15
- .67
- 0.30

The following list has examples of *invalid* Decimals:

- 123.4.5
- 5+6
- 1.4545E6
- 5,121.00

Numeric: Numeric is a generic data type that covers a number of different underlying data types. As a result, anything defined as numeric could be any of the following:

- Decimal
- Integer
- Long

Integer: The integer data type is used to specify a numeric value without a fractional component.

- It’s assumed that any Integers defined in this document are unsigned and never include a (+) plus or (-) minus sign. Any signed Integers containing a + or – are considered invalid.
- If the Integer is of defined length then curly brackets should be used. For example, {3} indicates the integer should be exactly 3 digits long.
- The maximum value of an unsigned Integer is $2^{64}-1$ which is 18446744073709551615

The following list has examples of valid Integers:

- 009
- 9
- 2147483647

The following list has examples of *invalid* Integers:

- -009
- +009
- 18446744073709551616 (i.e., too large)

Integer with optional thousands separator: The “integer with optional thousands separator” data type is used to specify a numeric value without a fractional component that can optionally have a comma to separate thousands. If commas are used as a thousands separator, the number must follow normal convention for specifying thousand separators, be surrounded by double quotes standard to csv files, and not include any additional characters (including spaces) between the comma that precedes the quoted number, or any additional characters in between the quoted number and the comma following the number, if any.

The following list has examples of valid Integers with optional thousands separator:

- 12001002
- “12,001,002”

The following list has examples of *invalid* Integers with optional thousands separator:

- -12001002
- +12001002
- 120,001,002
- “12,001,,002”
- “12001,002”
- A”12,001,002”
- “12,001,002”B

Null

Regardless of the data type, under certain conditions a field may be *null*, which means there is no data for that field (i.e., the field is blank).

Restricting values for a data type

Restrictions are used to define acceptable values for any given data type. The following lexicon is used when defining data types:

- Square brackets define the *pattern*.
 - e.g., [A-L] means only the uppercase letters A through L are allowed.
 - e.g., [U|D] means only the uppercase letters U or D are allowed.
 - e.g., [0-9] means only the numbers 0 through 9 are allowed
- Curly brackets define the *length* including spaces.
 - e.g., {3} means the value has to be exactly 3 characters long.
 - e.g., {1,3} means the value has to be a minimum of 1 character and a maximum of 3 characters.
 - e.g., {0,50} means the value has to be a minimum of 0 characters and a maximum of 50 characters.

Example 1:

The Data Type is defined as follows:

Integer
{3}

The curly brackets mean only a 3 digit integer is allowed.

Valid Values for example 1:

- 009
- 056
- 102

Invalid Values for example 1:

- 09
- 3502
- 1
- +12
- -35

Example 2:

The Data Type is defined as follows:

String
[A-L]{1}

The square brackets mean only the uppercase letters A through L are allowed and the curly brackets mean it must be exactly 1 character long.

Valid Values for example 2:

- B
- L

Invalid Values for example 2:

- a
- M
- 6

Example 3:

The Data Type is defined as follows:

String
[0-9]{3}

The square brackets mean only the numbers 0 through 9 are allowed and the curly brackets mean it must be 3 characters long.

Valid Values for example 3:

- 001
- 023
- 358

Invalid Values for example 3:

- 2
- 01
- 2026

Example 4:

The Data Type is defined as follows:

String
[0-9]{1,2}

The square brackets mean only the numbers 0 through 9 are allowed and the curly brackets mean it must be a minimum of 1 character long and a maximum of 2 characters long.

Valid Values for example 4:

- 4
- 04
- 41

Invalid Values for example 4:

- 123
- Blank or null value

Example 5:

The Data Type is defined as follows:

String
[US|CA|MX]{2}

The square brackets mean the pattern must be either US, CA or MX. The curly brackets mean it must be exactly 2 characters long.

Valid Values for example 5:

- US
- CA

Invalid Values for example 5:

- C
- USA

Example 6:

The Data Type is defined as follows:

String
[(FIPS)-[0-9] [0-9] [0-9] [0-9] [0-9] [0-9]){11}

The square brackets inside the round brackets mean the pattern must be a concatenation of the text "FIPS" followed by six single numbers, with each number ranging from 0 through 9. The curly brackets mean it must be exactly 11 characters long.

Valid Values for example 6:

- FIPS-123456
- FIPS-234567

Invalid Values for example 6:

- FIPS-123

- FIPS123456
- FIPS123
- FIPS0512
- FIPS2

Example 7:

The Data Type is defined as follows:

String

{0,50}

The absence of square brackets mean there are no restrictions to the characters in this string. The curly brackets mean it must be a minimum of 0 characters long (i.e., can be blank/null) and a maximum of 50 characters long.

Valid Values for example 7:

- "Albuquerque-Santa Fe, NM"

Invalid Values for example 7:

- Greenville-Spartanburg, SC-Asheville, NC-Anderson, SC
- This is an invalid string which is longer than 50 characters including spaces.