

Auction Rules

1. Definitions

“Posted price” is price that the auction system will announce in each round. It is the starting price of a band in an auction round.

“Clock price” is the sum of the price that the auction system will announce in each round and the bid increment specified in the table in section 3.

“Aggregated demand” is the sum of the demand for each band from all bidders in each round.

“Processed demand” is the demand being processed by the auction system for each band and each bidder.

2. Auction Procedure

The multi-band auction procedure for 850 MHz 1500 MHz 2100 MHz and 2300 MHz will feature 3 band groups as follows.

Band group 1 consists of low band, which is 850 MHz

Band group 2 consists of mid band currently being utilized for mobile services, which are 2100 MHz and 2300 MHz

Band group 3 consists of mid band that currently has not been utilized for mobile services, which is 1500 MHz

In addition, all the three band groups will be auctioned simultaneously in the allocation stage. The auction for every band group will consist of two stages:

(1) Allocation Stage: This stage allows bidders to submit their demand for spectrum lots to determine the winners. The number of lots allocated to each winner and the final price of each product will be decided. The specific frequency for which the winners will be assigned is not specified in this stage (Generic lots). The allocation stage will use a simultaneous ascending clock auction format.

(2) Assignment Stage: This stage allows the winners from the previous stage to submit bids to determine the specific lots they will be awarded. The assignment stage will use a first-price sealed-bid auction format.

3. Spectrum to be auctioned

The spectrum to be auctioned are displayed below:

Band group	Band	Available lots	Bandwidth (MHz)	Reserve price (Million Baht)	Bid increment (Million Baht)
1	850 MHz	2	2×5	7,738.23	774
2	2100 MHz	3	2×5	4,500.00	450
	2300 MHz	7	10	2,596.15	260
3	1500 MHz	11	5	1,057.49	106

4. Allocation stage

4.1 Eligibility

4.1.1 Initial Eligibility Points

In the allocation stage, bidders may submit a demand for spectrum lots in each band group. The initial eligibility points for each bidder are determined by the deposit made by the bidder. Prices for initial eligibility points of all bands are shown in the following table.

Band group	Band (MHz)	Bandwidth (MHz)	Eligibility point(s) required for bid submission for each lot	Deposit required for each lot (Million Baht)	Maximum eligibility points
1	850	2 × 5	1	774	2
2	2100	2 × 5	2	450	6
	2300	10	1	260	7
3	1500	5	1	106	11

Bidders must make a separate deposit for each band. Bidders are allowed to use their eligibility points for a band in the band group to submit their demand for that band or any other band within the same band group.

4.1.2 Spectrum cap and demand points

Bidder's demand in each round must not exceed the number of lots available. In addition, in each round, the demand points must not exceed the eligibility points specified in each band group in each round. The demand points are equal to the sum of the eligibility points for each band, multiplied by its respective demand, across all the bands in a band group.

4.2 Auction round

Each auction round consists of the following steps:

4.2.1 Bid submission step

Bidders can submit demands within 60 minutes. After 60 minutes or after all bidders submitted their demands, the auction will proceed to the bid processing step.

4.2.2 Bid processing step

The auction system will process the demands as explained in Section 4.3 and 4.4, and report information listed in Section 4.5. The auction will proceed to the next round if the allocation stage has not ended.

4.3 Bid submission in the first round

The auction system will announce the first-round price, which is the sum of the reserve price and the bid increment specified in the table in Section 3. Bidders must submit their demand at the first-round price equal to the number associated with their initial eligibility points in every band. If a participant fails to comply with this condition, their status as a bidder will be rescinded, and they will forfeit their deposit to the NBTC.

If aggregated demand in the first round is less than or equal to the number of available lots for all bands, the auction system will conclude the allocation stage. Consequently, the final price will be equal to the first-round price.

4.4 Bid submission in the next and subsequent rounds

4.4.1 Bid submission procedure

In each round, the auction system will announce the posted price and clock price for each band. Bidders can submit their demands in any of the following forms:

(1) Maintain demand at the clock price: the auction system will consider that the bidder expresses the following demand at various prices.

Price	Demand
Price between the posted price and the clock price, inclusive	Equal to the demand at the posted price.

Or;

(2) Reduce demand at the clock price: bidders must do the followings:

(2.1) Specify the demand at the clock price and

(2.2) Specify the price at which they intend to reduce the demand, which must be greater than the posted price but not exceed the clock price.

The auction system will consider that the bidder expresses the following demand at various prices.

Price	Demand
Greater than or equal to the posted price and below the specified price	Equal to the demand at the posted price
Equal to the specified price	Equal to any demand between the demand at the posted price and the demand at the clock price, inclusive
Greater than the specified price and lower than or equal to the clock price	Equal to the demand at the clock price

Or;

(3) Increase demand at the clock price: bidders must do the followings:

(3.1) Specify the demand at the clock price and

(3.2) Specify the price that would be used in the bid processing. This price must be greater than the posted price but not exceed the clock price.

Bidders can increase their demand if their demand points do not exceed their eligibility points for that band group in the current round. The auction system will consider that the bidder expresses the following demand at various prices.

Price	Demand
Greater than the posted price and not exceeding the clock price	Equal to any demand between the demand at the posted price and the demand at the clock price, inclusive

If the bidder fails to submit a bid, the auction system will consider that the bidder maintains the demand at the clock price as specified in section 4.4.1 (1).

In addition, bidders can simultaneously submit bids for any band within a band group, of any form specified in Section 4.4.1 (1) or 4.4.1 (2) or 4.4.1 (3), long as their demand points are less than or equal to the eligibility points for that band group in the current round.

4.4.2 Bid processing

In each round of the auction, the auction system will calculate the aggregated demand at the clock price for each band within the band group. The auction system will process the demand for the band as follows:

The order of bid processing will depend on the price points for each bid. The price point is equal to the ratio of the difference between the bid's specified price and the posted price to the bid increment. The auction system will calculate price points only for bids to increase or reduce demand. Bids will be processed in order from the lowest to the highest price point. In cases where multiple bids specify the same price point, the auction system will randomly determine the order to process those bids.

The auction system will process bids as follows:

(1) Bids to maintain demand will always be accepted, when bidders submit to maintain demand at the clock price.

(2) Bids to reduce demand may be fully accepted, partially accepted, or rejected. The auction system will process as follows:

(2.1) Bid to reduce demand will be fully accepted if the bid does not cause aggregated demand at the specified price to be less than the number of lots available.

(2.2) Bid to reduce demand will be partially accepted if

(2.2.1) The aggregated demand before the auction system processes the bid is greater than the number of lots available, and

(2.2.2) The bid will cause the aggregated demand to be less than the number of lots available.

Bidders will be able to reduce demand to the extent that the aggregated demand is equal to the number of lots available.

(2.3) Bid to reduce demand will be rejected if

(2.3.1) The aggregated demand before the auction system processes the bid is less than or equal to the number of lots available, or

(2.3.2) The auction system has closed for bid submission for the band group.

(3) Bids to increase demand may be fully accepted, partially accepted, or rejected. The auction system will process as follows:

(3.1) Bid to increase demand will be fully accepted if the bid does not cause the demand points, when calculated with processed demand, to exceed the eligibility points for the current round. The demand points, calculated using processed demand, are the sum of the eligibility points for each band, multiplied by its respective processed demand, across all bands within the band group.

(3.2) Bid to increase demand will be partially accepted if

(3.2.1) The partially-accepted bid would have caused the demand points, calculated with the processed demand, to not be greater than the eligibility points for the current round, and

(3.2.2) The fully-accepted bid would have caused the demand points, calculated with the processed demand, to exceed the eligibility points for the current round.

Bidders will be able to increase demand to the extent that it does not cause the demand points, calculated with the processed demand, to exceed their eligibility points.

(3.3) Bid to increase demand will be rejected if

(3.3.1) Either fully- or partially-accepted bids would have caused the demand points, calculated with the processed demand, to be greater than the eligibility points for the current round.

(3.3.2) The auction system has closed for bid submission for the band group.

The system will keep the bids to increase or decrease demand that have not been fully accepted in a list. When a bid is either fully or partially accepted, the system reprocesses all the bids on the list starting from the very beginning. If any bid is fully accepted, that bid will be removed from the list. Unaccepted portions of bids that have not been fully accepted will remain on the list. The system will repeatedly process the bids until no bids are left, or all the bids on the list have been rejected.

4.4.3 Eligibility points in the next round

The eligibility points in the next round will be equal to the greatest values between

- (1) Demand points in the current round.
- (2) Demand points, calculated with the processed demands, after the auction system has finished processing bids.

4.4.4 Setting up for the next round

(1) In each band group, if the aggregated demand at the clock price is greater than the number of lots available, the posted price for the next round will be equal to the current clock price.

(2) If the aggregated demand at the clock price equals the number of lots available, and at least one bid to reduce demand is fully or partially accepted, the next round's posted price will be equal to the highest price among those in the accepted bids to reduce demand.

(3) In other cases, the posted price for the next round will be equal to the posted price in the current round.

4.5 Information disclosure

During the bid submission step, the auction system will disclose information about the band group, including:

- (1) Whether the band group is open for bidding.
- (2) The posted price and clock price for the current round.
- (3) The aggregated demand at the posted price.
- (4) The bidder's processed demand at the posted price.
- (5) The bidder's eligibility points for each band group.

4.6 Ending of the allocation stage

The allocation stage ends when the auction system closes for bid submission under the following conditions:

- (1) All bids have been processed.

(2) The aggregated demand for each band is less than or equal to the number of lots available.

Each bidder will receive the number of spectrum lots they demand at the final price. Bidders who are awarded at least one lot will be considered auction winners.

The final price for each band will be calculated as follows:

(1) If the aggregated demand in the final round equals the number of lots available and at least one bid to reduce demand is fully or partially accepted. In that case, the final price will be equal to the highest price among those specified in the accepted bids to reduce demand.

(2) In other cases, the final price will be equal to the posted price in the final round.

5. Assignment stage

Each bidder will receive the number of spectrum lots they demand at the final price. Bidders who are awarded at least one lot will be considered auction winners. Auction winners will be able to select contiguous frequency for their awarded lots.

In the process to assign spectrum frequency, the auction system will announce possible options for each winner. Each option must not cause non-contiguous spectrum for each winner or unsold lots. A winner may submit additional prices they are willing to pay for each assignment option within the allotted time. If the winner does not submit a price for an option, it will be considered that the winner has submitted zero for that option.

When the price submission process concludes, the auction system will determine the frequency assignment by selecting the combination with the highest total sum of price(s). If multiple combinations share the highest total, the auction system will randomly select one of them.

The winner will be assigned the frequency based on the chosen combination. The final price for each winner in the assignment stage will be their submitted price for the spectrum placement option in the chosen combination.

6. Disqualification

A bidder will be disqualified from the auction in the following cases:

(1) In the first round, if a bidder fails to submit their demand at the first-round price equal to the number associated with their initial eligibility points in every band, the bidder will be considered to have not complied with the auction rules and will be removed from the auction. Their status as a bidder will be rescinded, and they will forfeit their deposit to the NBTC.

(2) From the second round onwards, if a bidder has no eligibility points, the bidder will not be able to place bids for bands in that band group in subsequent rounds.

7. Ending of the auction

The multi-band auction will end when the NBTC announces the auction results on the date the auction ends. The auction winners will sign to certify the final price for each band, which is equal to the sum of the number of lots awarded, multiplied by the final price per lot in the allocation stage, and the final price in the assignment stage.

8. Reservation of rights

In the event of force majeure or other circumstances that prevent the auction from proceeding according to the auction rules, the NBTC reserves the right to modify the format, process, method, and rules of the auction, as well as to suspend, pause, or cancel the auction.