

### **Sealed Bid End of Auction Procedure – Descending Clock Auction**

If the auction proceeds to the point where an over-supplied round is followed by an under-supplied round, each supplier who submitted a bid at the last over-supplied round must submit a sealed bid identifying the number of tranches that it is willing to supply and the price at which it is willing to supply them. The following rules apply:

- The sealed bid must indicate (1) the number of tranches the supplier is willing to supply and (2) the lowest price at which the supplier is willing to supply that number of tranches. The price must be denominated to the penny, i.e., no tenths of a cent can be submitted.
- Every supplier who submitted a bid at the last over-supplied round must submit a sealed bid even if the bid merely indicates the same number of tranches that the supplier bid in the last over-supplied round and the Going Price for that round.
- If a supplier does not submit a sealed bid, a bid will be submitted on behalf of them for the same number of tranches that was bid in the last over-supplied round and the Going Price for that round.
- The sealed bid cannot include greater number of tranches that exceeds the number bid in the last over-supplied round, and the sealed bid cannot indicate a price that exceeds the Going Price of the last over-supplied round.
- There is no minimum price. A supplier who submitted fewer or no tranches for the under-supplied round can still submit a sealed bid for up to the number of tranches that it bid for the last over-supplied round and indicate a price that is less than the Going Price that resulted in the under-supplied round.

DEO will use the market-clearing price established in the sealed bid process to determine the final auction price. All suppliers who submitted a sealed bid at or below that market-clearing price will be paid the market-clearing price regardless of the price indicated in their sealed bid.

- If there are not enough tranches bid in the sealed bid process at a price less than the Going Price of the last over-supplied round, the Going Price will revert to that of the last over-supplied round. Tranches will be apportioned to the suppliers on the basis of the number of tranches that each bid in the final over-supplied round. All suppliers will be paid the Going Price of the last over-supplied round regardless of the price indicated in their sealed bid.
- If the market is cleared at a price at or below the Going Price of the last over-supplied round and there are more tranches bid at that market-clearing price than are needed, the tranches will be apportioned to suppliers that submitted bids at or below that market-clearing price on the basis of the number of tranches that each indicated in its sealed bid. All suppliers will be paid the market-clearing price regardless of the price indicated in their sealed bid.

### Sealed Bid End of Auction Procedure – Descending Clock Auction Example #1

The sealed bid process generates bids for the exact number of tranches needed at a market-clearing price below the Going Price of the last over-supplied round.

- a. The number of tranches required equals 9. The last over-supplied round generates 12 tranches bid at a Going Price of \$2.00.

The number of tranches bid in that round by supplier is:

Supplier A - 3 tranches

Supplier B – 3 tranches

Supplier C – 2 tranches

Supplier D – 2 tranches

Supplier E – 2 tranches

- b. In the following round with a Going Price of \$1.95, only 8 tranches are bid by the following suppliers:

Supplier A - 3 tranches

Supplier B – 2 tranches

Supplier C – 2 tranches

Supplier D – 1 tranche

Supplier E bids 0 tranches

- c. The sealed bids submitted by the suppliers - in ascending order by price – are as follows:

Supplier A – 3 tranches for a price of \$1.87

Supplier C – 2 tranches for a price of \$1.89 (*5 tranches bid at or below \$1.89*)

Supplier B – 2 tranches for a price of \$1.92 (*7 tranches bid at or below \$1.92*)

Supplier D – 2 tranches for a price of \$1.97(*9 tranches bid at or below \$1.97*)

Supplier E – 2 tranches for a price of \$2.00

The sealed bid process results in a market-clearing price of \$1.97. Suppliers A, C, B and D are awarded the number of tranches that each bid in the sealed bid process and will be paid \$1.97 above NYMEX if the results of the auction are approved by the PUCO.

## Sealed Bid End of Auction Procedure – Descending Clock Auction Example #2

**The sealed bid process does not generate enough bids at a market-clearing price below that of the last over-supplied round.**

- a. The number of tranches required equals 9. The last over-supplied round generates 10 tranches bid at a Going Price of \$1.90.

The number of tranches bid in that round by supplier is:

Supplier A - 3 tranches

Supplier B – 2 tranches

Supplier C – 2 tranches

Supplier D – 2 tranches

Supplier E – 1 tranche

- b. In the following round with a Going Price of \$1.85, only 7 tranches are bid by the following suppliers:

Supplier A - 3 tranches

Supplier B – 2 tranches

Supplier C – 1 tranche

Supplier D – 1 tranche

Supplier E bids 0 tranches

- c. The sealed bids submitted by the suppliers - in ascending order by price – are as follows:

Supplier A – 3 tranches for a price of \$1.82

Supplier C – 1 tranche for a price of \$1.83 (*4 tranches bid at or below \$1.83*)

Supplier B – 2 tranches for a price of \$1.84 (*6 tranches bid at or below \$1.84*)

Supplier D – 2 tranches for a price of \$1.86 (*8 tranches bid at or below \$1.86*)

Supplier E – 1 tranche for a price of \$1.90

Because the sealed bid process did not result in enough tranches being bid at a price less than the Going Price of the last over-supplied round, the Going Price will revert to \$1.90. Tranches will be apportioned to the suppliers that submitted bids in the last over-supplied round on the basis of the number of tranches that each bid in that round.

Thus, Supplier A will be awarded 3 of the 10 tranches (30%) bid at the \$1.90 Going Price; Supplier B will be awarded 2 of the 10 tranches (20%) bid at that price; and so forth if the results of the auction are approved by the PUCO.

### Sealed Bid End of Auction Procedure – Descending Clock Auction Example #3

**The sealed bid process generates bids for more than enough tranches needed at a market-clearing price below the Going Price of the last over-supplied round.**

- a. The number of tranches required equals 9. The last over-supplied round generates 11 tranches bid at a Going Price of \$2.20.

The number of tranches bid in that round by supplier is:

Supplier A - 3 tranches

Supplier B – 3 tranches

Supplier C – 2 tranches

Supplier D – 2 tranches

Supplier E – 1 tranches

- b. In the following round with a Going Price of \$2.15, only 8 tranches are bid by the following suppliers:

Supplier A - 3 tranches

Supplier B – 2 tranches

Supplier C – 2 tranches

Supplier D – 1 tranche

Supplier E bids 0 tranches

- c. The sealed bids submitted by the suppliers - in ascending order by price – are as follows:

Supplier A – 3 tranches for a price of \$2.12

Supplier C – 2 tranches for a price of \$2.12 (*5 tranches bid at or below \$2.12*)

Supplier B – 3 tranches for a price of \$2.16 (*8 tranches bid at or below \$2.16*)

Supplier D – 2 tranches for a price of \$2.17 (*10 tranches bid at or below \$2.17*)

Supplier E – 1 tranche for a price of \$2.20

Under the sealed bid process, the market cleared at a price where there are more tranches bid at the market-clearing price than are needed. As a result, the tranches will be apportioned to suppliers that submitted bids at or below that market-clearing price on the basis of the number of tranches that each indicated in its sealed bid.

Thus, Supplier A will be awarded 3 of the 10 tranches (30%) bid at or below the \$2.17 market-clearing price; Supplier C will be awarded 2 of the 10 tranches (20%) bid at or below that price; and so forth if the results of the auction are approved by the PUCO.