

Summary of Procedures for Determining Bid Adequacy at  
Offshore Oil and Gas Lease Sales: Effective July 1999,  
with Sale 174

In administering the offshore oil and gas leasing program, the Secretary of the Interior is required by law to see that the Government receives a fair return for the lease rights granted and the minerals conveyed. To assure that the Government receives a fair return for these offshore lease rights, the Department uses a two-phased system of bid evaluation to assess the adequacy of bids.

The following describes these two-phase bid adequacy procedures:

Phase 1 includes evaluation criteria for accepting high bids on some tracts and determining what other bids will receive further evaluation in Phase 2. Phase 2 uses an independent Government evaluation and the bid adequacy rules based upon the Mean Range of Values (MROV), Delayed Mean Range of Values (DMROV), Adjusted Delayed Value (ADV), and Revised Arithmetic Average Measure (RAM). The MROV is a dollar measure of the Government's estimate of a tract's expected net present private value, given that the tract is leased in the current sale. The DMROV<sup>1</sup> represents an expected value estimate reflecting lease revenues to the Government if the high bid is rejected and the tract resold at the next sale in the area adjusted for changes in value due to potential drainage during the interval between sales and to variations in prices prevailing at time of production. The ADV is the minimum of the MROV and the DMROV. The RAM is the arithmetic average of the MROV and all qualified bids<sup>2</sup> on the tract that are equal to at least 25 percent of the high bid. In addition to these criteria, MMS analyzes the high bids on certain tracts based on other pertinent costs relating to delays in a possible drainage situation. A flow chart that illustrates this process is attached as an appendix to this document.

Phase 1

In Phase 1 we review the bid for legal sufficiency<sup>3</sup> and anomalies<sup>4</sup> to establish the set of qualified bids to be evaluated. Phase 1 partitions the tracts receiving bids into three general categories:

---

<sup>1</sup> The DMROV is a measure used to determine whether the high bid received plus royalty receipts expected in the current sale is at least equal to the discounted sum of the bonus and royalties expected on the tract in the next sale. The bonus for the next sale is computed as the MROV associated with the delay in leasing under the projected economic, engineering, and geological conditions, including drainage.

<sup>2</sup> Qualified bids are those bids that are legal and not anomalous.

<sup>3</sup> As used in this attachment, "legal bids" means those bids that comply with MMS regulations and the Notice of Sale.

<sup>4</sup> Anomalous bids include all but the highest bid submitted for a tract by the same company, parent or subsidiary (bidding alone or jointly). Those bids that remain after the anomalous bids have been excluded are referred to as the qualified bids.

- Those tracts with three-or-more bids, on which competitive market forces can be used to assure fair market value;
- Those tracts which MMS identifies as being nonviable<sup>5</sup> based on adequate data and maps; and
- Those tracts identified as being viable and on which the Government has the most detailed and reliable data, including tracts classified as drainage or development.

Based on these categories, the following bid adequacy criteria are applied to all tracts receiving bids:

- Accept the highest qualified bid on viable confirmed and wildcat tracts receiving three-or-more qualified bids if the third largest bid on the tract is at least 50 percent of the highest qualified bid, and if the high bid per acre ranks in the top 75 percent of high bids for all three-or-more-bid tracts within a specified water depth category.<sup>6</sup>
- Accept the highest qualified bid on confirmed and wildcat tracts determined to be nonviable.
- Pass to Phase 2 for further evaluation all tracts that require additional information to make a determination on viability or tract type.
- Pass to Phase 2 all drainage and development tracts.
- Pass to Phase 2 all viable confirmed and wildcat tracts receiving one or two qualified bids.
- Pass to Phase 2 all viable confirmed and wildcat tracts receiving three-or-more qualified bids if either the third highest such bid is less than 50 percent of the highest qualified bid or if the high bid per acre ranks in the lowest 25 percent of high bids for all three-or-more-bid tracts in the specified water depth category.

---

<sup>5</sup> Nonviable tracts or prospects are those geographic or geologic configurations of hydrocarbons whose risk weighted most probable resource size is below the minimum economic field size for the relevant cost regime and anticipated future prices. The risk used is below the lowest level anticipated for any tract or prospect in the same cost regime.

<sup>6</sup>The designated water depth categories in the Gulf of Mexico are (1) less than 800 meters and (2) 800 meters or more. If different ones are selected, they will be specified in the final notice of sale.

The percentile ranking of a tract's high bid per acre is calculated by multiplying 100 times the ratio of the numerical ordering of the three-or-more-bid tract's high bid per acre to the total number of all viable and nonviable three-or-more-bid tracts in the designated water depth. For example, suppose there are 21 tracts identified in Phase 1 as receiving three-or-more-bids in the designated water depth category of at least 800 meters. All viable tracts in this set having a high bid per acre among the top 15 would satisfy the 75% requirement; the 15<sup>th</sup> ranked high bid per acre would represent the 71<sup>st</sup> percentile, i.e.,  $(100 * (15/21) = 71)$ .

In ensuring the integrity of the bidding process, the Regional Director (RD) may identify an unusual bidding pattern<sup>7</sup> at any time during the bid review process, but before a tract is accepted. If the finding is documented, the RD has discretionary authority, after consultation with the Solicitor, to pass those tracts so identified to Phase 2 for further analysis. The RD may eliminate all but the highest of the unusual bids from consideration when applying any bid adequacy rule, may choose not to apply a bid adequacy rule, or may reject the tract's highest qualified bid.

These procedures are generally completed within three weeks of the bid opening. All the leases that will be awarded as a result of the Phase 1 analysis are announced at the end of this period.

## Phase 2

The Phase 2 bid adequacy determinations are normally completed sequentially over a period ranging between 21 and 90 days after the sale. The total evaluation period can be extended, if needed, at the RD's discretion (61 FR 34730, July 3, 1996).

Activities designed to resolve bid adequacy assessments are undertaken by analyzing, partitioning, and evaluating tracts in two steps:

- Further mapping and/or analysis is done to review, modify and finalize viability determinations and tract classifications.
- Tracts identified as being viable must undergo an evaluation to determine if fair market value has been received.

After completion of these two steps, a series of rules and procedures are followed.

- Accept newly classified confirmed and wildcat tracts having three-or-more qualified bids if the third largest such bid is at least 50 percent of the highest

---

<sup>7</sup> Within the context of our bid adequacy procedures, the term "unusual bidding patterns" typically refers to a situation in which there is an excessive amount of coincident bidding by different companies on a set of tracts in a sale. Other forms of unusual bidding patterns exist as well, and generally involve anti-competitive practices, e.g., when there is an uncommon absence of competition among companies active in a sale on a set of prospective tracts.

qualified bid and if its high bid per acre ranks in the top 75 percent of high bids for all three-or-more-bid tracts that reside within its specified water depth category.

- Accept the highest qualified bid on all tracts determined to be nonviable.
- Determine whether any categorical fair market value evaluation technique(s) will be used. If so,
  - Evaluate, define, and identify the appropriate threshold measure(s).
  - Accept the highest qualified bid on all tracts whose individual measures of bid adequacy satisfy the threshold categorical requirements.
- Conduct a full-scale evaluation, which could include the use of MONTCAR<sup>8</sup>, on all remaining tracts<sup>9</sup> passed to Phase 2 and still awaiting an acceptance or rejection decision.

MONTCAR: The Monte Carlo simulation method used for computing the MROV, can best be described as a five-step process.

1. The range and distribution of possible values of each variable that will affect the ultimate outcome of the venture are estimated.
2. One value from the distribution of each variable is selected at random. The tract's value is computed using this combination of samples from the variables. A second value is selected at random from the distribution of each of the variables. Again, the tract's value is computed. This is the second point in the distribution of possible values.
3. The process is repeated again and again, each time with a set of values selected at random from the distribution of each variable.
4. The possible values are then arranged to develop a cumulative probability distribution of net economic value for the tract.

---

<sup>8</sup> MONTCAR is a probabilistic, cash flow computer simulation model designed to conduct a resource-economic evaluation that results in an estimate of the expected net present value of a tract (or prospect) along with other measures.

<sup>9</sup> These include tracts not accepted by a categorical rule that are: 1) classified as drainage and development tracts; or 2) those classified as confirmed and wildcat tracts that are viable and received (a) one or two qualified bids, or (b) three-or-more qualified bids where either the third largest such bid is less than 50 percent of the highest qualified bid or the high bid is in the bottom 25 percent of all three-or-more-bid confirmed and wildcat tracts for a designated water depth category.

5. The mean of this distribution is determined and risk factors and the effects of bonus write-off and depletion are applied to calculate the expected value or MROV of the tract.

The following describes the process used in calculating the DMROV:

1. A new MROV is calculated, along with the present value of expected royalty and/or profit share payments, as of the next expected sale date using the above steps.
2. The calculations of the leasing receipts reflect adjustments for drainage (i.e., lost production) during the interval between sales and for different prices applying to the production stream.
3. The present worth of the new MROV, royalty, and/or profit share are discounted for the period of the sale delay (the time period between the current sale and the next expected sale).
4. The DMROV is then calculated as the difference between (a) the sum of the discounted present worth MROV (i.e., "bonus"), royalty, and/or profit share of the next sale and (b) the sum of the present worth of the royalty, and/or profit share of the current sale.

The MROV and DMROV are then compared. The minimum of the two is used in Phase 2 analysis and defined as the ADV. We compare the highest qualified bid on each of the remaining tracts to two measures of bid adequacy generated from MONTCAR: the MROV and the ADV. Then we:

- Accept the highest qualified bid for those tracts where such a bid equals or exceeds the tract's ADV.
- Reject the highest qualified bid on drainage and development tracts receiving three-or-more qualified bids where such a bid is less than one-sixth of the tract's MROV.
- Reject the highest qualified bid on drainage and development tracts receiving one or two qualified bids and on confirmed and wildcat tracts receiving only one qualified bid where such a bid is less than the tract's ADV.

We select from the remaining tracts<sup>10</sup>, those (a) drainage and development tracts having three-or-more qualified bids with the third largest such bid being at least 25 percent of the highest

---

<sup>10</sup> These consist of those tracts having a highest qualified bid that does not exceed the ADV for that tract, and are either (a) drainage or development tracts receiving three-or-more qualified bids with the highest such bid exceeding one-sixth of the tract's MROV, or (b) confirmed and wildcat tracts that are viable and receive two-or-more qualified bids.

qualified bid and (b) confirmed and wildcat tracts having two-or-more qualified bids with the second largest such bid being at least 25 percent of the highest qualified bid. Then we compare the highest qualified bid on each of these selected, remaining tracts to the tract's RAM and:

- Accept the highest qualified bid where such a bid equals or exceeds the tract's RAM.
- Reject the highest qualified bid where such a bid is less than the tract's RAM.
- Reject the highest qualified bid on all tracts remaining that were not selected for comparison to the RAM.

Upon acceptance, the high bidders must pay the balance of the bonus bid (80 percent) along with the first year's annual rental within 15 days.

#### Appendices

MMS Definitions

Postsale Evaluation Procedures for Areawide Sales - Flow Chart

Definitions Used by MMS to Classify Tracts

Adjusted Delayed Value (ADV): The minimum of the MROV and the DMROV.

Anomalous Bids: All but the highest bid submitted for a tract by the same company, parent or subsidiary (bidding alone or jointly).

Confirmed Tract: A previously leased tract having a well(s) which encountered hydrocarbons and may have produced. It contains some oil and/or gas resources whose volume may or may not be known.

Delayed Mean Range of Values (DMROV): A measure that is used to determine whether the high bid received plus royalty receipts expected in the current sale is at least equal to the discounted sum of the bonus and royalties expected on the tract in the next sale. The bonus for the next sale is computed as the MROV associated with the delay in leasing under the projected economic, engineering, and geological conditions, including drainage.

Development Tract: A tract which has nearby productive (past or currently capable) wells with indicated hydrocarbons and which is not interpreted to have a productive reservoir extending under the tract. There should be evidence supporting the interpretation that at least part of the tract is on the same general structure as the proven productive well.

Drainage Tract: A tract which has a nearby well which is capable of producing oil or gas, and the tract could incur drainage if and when such a well is placed on production. The reservoir, from which the nearby well is capable of producing, is interpreted to extend under the drainage tract to some extent.

Legal Bids: Those bids on a tract which comply with MMS regulations and the Notice of Sale.

Mean Range of Values (MROV): A dollar measure of the MMS estimate of a tract's expected net present private value, given that the tract is leased in the current sale.

Nonviable Tract/Prospect: A tract or prospect is that geographic or geologic configuration of hydrocarbons whose risk weighted most probable resource size is below the minimum economic field size for the relevant cost regime and anticipated future prices. The risk used is below the lowest level anticipated for any tract or prospect in the same cost regime.

Qualified Bids: The bids on a tract which are legal bids and not anomalous.

Revised Arithmetic Average Measure (RAM): The arithmetic average of the MROV and all qualified bids on the tract that are equal to at least 25 percent of the high bid.

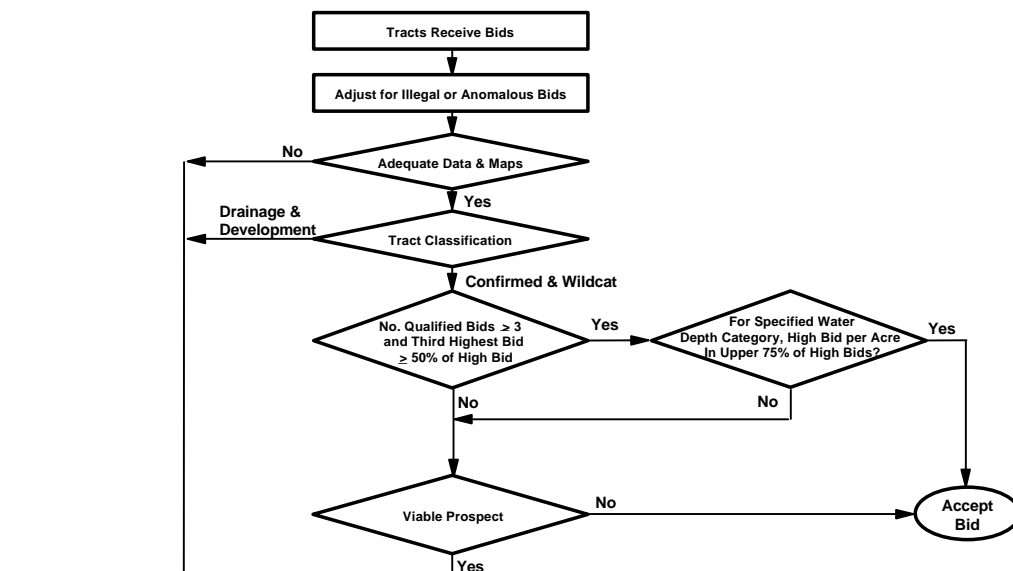
Viability Tract/Prospect: A tract or prospect having a resource level (obtained by using most probable inputs from ranges of values for appropriate parameters) that exceeds the minimum economic field size for that particular cost regime.

Wildcat Tract: A tract which has neither nearby productive (past or currently capable) wells, nor is interpreted to have a productive reservoir extending under the tract. It has high risk in addition to sparse well control.



# Postsale Evaluation Procedures

P  
H  
A  
S  
E  
  
1



P  
H  
A  
S  
E  
  
2

