Procedures for Determining Bid Adequacy at Outer Continental Shelf Oil and Gas Lease Sales

These procedures are effective beginning with the first lease sale held pursuant to the 2024 – 2029 National OCS Oil and Gas Leasing Program.

In administering the offshore oil and gas leasing program, the Secretary of the Interior is required by the Outer Continental Shelf Lands Act (OCSLA) to ensure that the Federal Government receives fair market value for the lease rights granted and the minerals conveyed. To carry out this responsibility, the Bureau of Ocean Energy Management (BOEM) and its predecessor agency, the Minerals Management Service, have used since 1983, and will continue to use, a two-phase, post-sale bid evaluation process to assess the adequacy of bids received in Federal offshore oil and gas lease sales. Under its bid adequacy procedures, BOEM reviews all high bids received and evaluates all tracts to ensure that fair market value is received for each OCS lease issued. The bid adequacy process relies on both evidence of market competition and in-house estimates of tract value. In addition to the lease fiscal terms and bid adequacy process, BOEM establishes terms and conditions to encourage lessees to develop leases expeditiously and in a manner that both protects the environment and promotes safe operating practices.

Details of BOEM's phase 1 and phase 2 bid evaluation processes are described below.

Phase 1

In phase 1, BOEM reviews all bids for compliance with the applicable regulations and the final notice of sale and for anomalous bids which are defined as all but the highest bid submitted for a tract by the same company, parent or subsidiary whether bidding alone or jointly. This review establishes the set of qualified bids to be evaluated for each tract.

Next, BOEM tests all tracts for geologic and economic viability.

i. BOEM will accept the highest qualified bid in phase 1 for each tract that it determines is nonviable. BOEM considers a tract nonviable if BOEM believes the tract has zero potential of being explored, developed, and produced profitably under economic conditions present at the time of the lease sale.

ii. BOEM will pass to phase 2 for further analysis each tract that it determines is viable or of unknown viability. BOEM considers a tract viable if BOEM believes it has the potential of being explored, developed, and produced profitably under economic conditions present at the time of the lease sale.

BOEM's regional director (RD) should determine if any unusual bidding patterns have been observed in a sale before BOEM accepts a tract's highest qualified bid. After consultation with Office of the Solicitor, the RD has discretionary authority to pass any tracts with suspected unusual bidding patterns to phase 2 for further analysis. The RD may also eliminate from consideration all but the highest of the unusual bids when applying any bid adequacy rules (including those described in phase 2), may choose to not apply a bid adequacy rule, or may reject a tract's highest qualified bid.

Phase 2

In phase 2, all tracts first undergo a detailed geological and geophysical evaluation by BOEM. This evaluation further refines BOEM's understanding of the oil and gas potential of viable tracts and helps assess viability where it could not be determined in phase 1. Upon completion of this evaluation, the RD may accept the highest qualified bid on any tracts deemed nonviable. BOEM will then subject the remaining tracts to a full-scale resource and economic evaluation to determine if each tract's highest qualified bid provides fair market value.

As a critical component of this resource and economic evaluation, BOEM uses a discounted cash flow analysis to calculate the tract's mean range of values (MROV). The MROV is the mean of a tract's net present value of the oil and gas resources, adjusted for the geological risks of not finding hydrocarbons, the uncertainties associated with the tract's development, and economic parameters at the time of the lease sale. MROV represents the maximum cash payment that a bidder can offer for acquiring the tract's drilling and development property rights and expect to make a normal rate of return on its investment.

In conducting the resource and economic evaluation, BOEM will use its probabilistic discounted cash flow simulation model to generate up to two measures of bid adequacy as described below. BOEM then compares a tract's highest qualified bid to the two applicable measures of bid adequacy. If that bid equals or exceeds either of these measures, the RD may accept the highest qualified bid as representative of fair market value for the tract.

1) The first measure of bid adequacy is referred to as the Lower Bound of a Confidence Interval (LBCI). The LBCI is the lower bound of a statistical tranche around the MROV at the 90 percent confidence level. It is calculated from the computed mean and standard deviation of a random simulation for a large number of iterations of the net present value of a given tract. The LBCI is a threshold that incorporates the geological risks and the uncertainties associated with the development and economic parameters unique to the valuation. It represents the minimum expected value associated with a tract at the time of the lease sale. If the highest qualified bid is equal to or greater than the LBCI, the RD may accept that bid as representative of fair market value.

   Those tracts with a highest qualified bid less than the LBCI are separated into two sets for additional tests. The sets are related to the total number of qualified bids and the relative spread of the highest and the second highest qualified bids on that tract:

   - The first set consists of tracts receiving either a single qualified bid or two or more qualified bids where the second highest qualified bid is less than 25 percent of the highest qualified bid. The RD may reject any and all of the highest qualified bids on tracts in this set.

   - The second set consists of all remaining tracts, including tracts receiving at least two qualified bids where the second highest qualified bid is equal to or greater than 25 percent of the highest qualified bid. All tracts in this set are subject to the second bid adequacy measure (Revised Arithmetic Measure) as described below, before the RD makes an acceptance or rejection decision.

2) The second measure of bid adequacy is the Revised Arithmetic Measure (RAM). The RAM is calculated as the average of the highest qualified bid, all other qualified bids that are equal to or greater than 25 percent of the highest qualified bid, and the MROV. If the highest qualified bid on a tract is equal to or greater than the RAM, the RD may accept the bid as representative of fair market value.

Before making any final bid adequacy decisions in phase 2, the RD may consider whether the results are consistent with OCSLA's requirement to ensure receipt of fair market value for the leases granted and the minerals conveyed. To the extent the RD determines the results are inconsistent with this requirement, the RD may propose an alternative protocol that would specify procedures and bid adequacy threshold measures for acceptance that cover selected categories of tracts. If this alternative protocol is then approved by the BOEM Director, it could be applied either as an adjunct to or substitute for the bid adequacy procedures described herein for a given lease sale.

BOEM typically accepts or rejects all bids within 90 days of opening. BOEM reserves the right to extend that time if necessary, and, in that event, BOEM will notify all affected bidders in writing prior to the expiration of the initial 90-day period or any extension. Any bid not accepted within the prescribed 90-day period or any extension will be deemed rejected (30 CFR 556.516(b)).

Appendix 1 provides the equation for the calculation of LBCI at a 90 percent confidence level.

Appendix 2 provides a flow chart illustrating the post-sale evaluation procedures in OCS oil and gas lease sales.

Appendix 1
Equation for the Calculation of LBCI at a 90 Percent Confidence Level

Appendix 1 provides the equation for the calculation of LBCI at a 90 percent confidence level. The LBCI is a statistical concept that captures the lower bound of a range of values encompassing the true unknown mean of the risked present worth (RPW) of the resources at the time of the lease sale. RPW is the net present value of the potential oil and gas resources contained in a tract adjusted for the geological risks of not finding hydrocarbons and the uncertainties associated with the development and economic parameters of that tract at the time of the lease sale. The LBCI incorporates the uncertainty of parameters unique to the valuation of each OCS oil and gas lease sale tract.

The LBCI at a 90 percent confidence level (CL) is calculated using the following equation:

$$\boldsymbol{LBCI\ at\ 90\%\ CL = MROV - 1.645\ \frac{\text{SD of Tract's RPWs}}{\sqrt{\text{Number of Monte Carlo Iterations}}}}$$

Where:

MROV (Mean Range of Values) is the **mean** of the RPWs of an OCS tract derived from a given number of Monte Carlo iterations.

SD of Tract's RPWs is the **standard deviation** of the RPWs of an OCS tract derived from a given number of Monte Carlo iterations.

Number of Monte Carlo Iterations is the number of Monte Carlo simulations used for generating the RPWs of an OCS tract.

1.645 is a constant multiplier (also called **Z-score** in statistics) for 90% Confidence Level.

Appendix 2
Flow Chart for Post-sale Bid Evaluation Procedures in OCS Oil and Gas Lease Sales

Appendix 2 provides a flow chart illustrating the post-sale bid evaluation procedures in OCS oil and gas lease sales.