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Acronyms

BIA	Bureau of Indian Affairs, Department of the Interior
BLM	Bureau of Land Management, Department of the Interior
DME	Division of Minerals Evaluation, Office of Valuation Services, Department of the Interior
DOD	Department of Defense
DSD	BLM Deputy State Director
FMV	Fair Market Value
FOIA	Freedom of Information Act
FWS	Fish and Wildlife Service, Department of the Interior
GIS	Geospatial Information System
GPS	Geographic Positioning System
ET	Evaluation Team
IB	Information Bulletin
IM	Instruction Memorandum
LBA	Lease-by-Application
LMU	Logical Mining Unit
LR2000	Legacy Rehost 2000 System
MER	Maximum Economic Recovery
MLR	Multiple Linear Regression
MOU	Memorandum of Understanding
MSHA	Mine Safety and Health Administration, Department of Labor
MU	Mining Unit
NEPA	National Environmental Policy Act
NPS	National Park Service, Department of the Interior
ONRR	Office of Natural Resources Revenue (formerly a unit of the bureau known as the Minerals Management Service - MMS)
OSM	Office of Surface Mining Reclamation and Enforcement, Department of the Interior
OVS	Office of Valuation Services, Department of Interior
SD	BLM State Director
SMA	Surface Management Agency
SMCRA	Surface Mining Control and Reclamation Act
SRA	State Regulatory Agency
UMR	Ultimate Maximum Recovery
USFS	U.S. Forest Service, Department of Agriculture
USGS	U.S. Geologic Survey, Department of the Interior

Chapter 1 Overview

1.1. Purpose

Fair market value (FMV) estimates are required for the BLM to carry out coal leasing and coal lease modification actions under the BLM regulations and controlling legislation. This Manual Section establishes who is responsible for and the policy for preparing, reviewing, and using FMV estimates for coal leases and coal lease modifications.

1.2. Objectives

The objectives of this Manual Section are to establish:

- A. Responsibilities for who will prepare, review, and use FMV estimates for coal leases or coal lease modifications;
- B. Policy to ensure that BLM prepares uniform, objective, documented and quality FMV estimates.
- C. Minimum qualifications for personnel preparing and reviewing FMV estimates.

1.3. Authority

- A. 25 CFR 211.4, 212.4, and 225.4, Authority and responsibility of the Bureau of Land Management (BLM);
- B. 43 CFR Part 3400, Coal Management: General and the legislative and statutory authorities cited therein;
- C. 43 CFR Part 3420, Competitive Leasing;
- D. 43 CFR Subpart 3425, Leasing on Application;
- E. 43 CFR Subpart 3432, Lease Modifications;
- F. 43 CFR Part 3460, Environment;
- G. 43 CFR Part 3480, Coal Exploration and Mining Operations Rules;
- H. 43 CFR Part 3590, Solid Minerals (other than coal) Exploration and Mining Operations;
- I. Department of the Interior (DOI) Secretarial Order 3300, Establishment of the Office of Valuation Services, May 21, 2010;
- J. DOI Manual 112 DM 33, June 1, 2011;
- K. White House Memorandum for the Heads of Executive Departments and Agencies, March 9, 2009;
- L. DOI Secretarial Order 3305, Ensuring Scientific integrity with the Department of the Interior, September 29, 2010);
- M. Act of July 4, 1866 (30 U.S.C. 21);
- N. Mineral Leasing Act of 1920, as amended and supplemented (30 U.S.C. 181 et seq.);
- O. General Authority of the Secretary of the Interior with respect to administration of public lands, *Cameron v. U.S.*, 252 U.S. 450 (1920);
- P. Mineral Leasing Act for Acquired Lands of 1947, as amended (30 U.S.C. 351-359);
- Q. Mining Claims Rights Restoration Act of August 11, 1955 (30 U.S.C. 621 et seq.);
- R. Federal Information Centers Act of 1949 (40 U.S.C. 760 et seq.); and
- S. Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.).

1.4. Responsibility

1.4.1. The Director

The Director, acting under broad Departmental guidance, assures that the BLM coal economic evaluation activities are in compliance with statutory authorities and Departmental policies.

1.4.2. The Assistant Director, Energy, Minerals, and Realty Resources

The Assistant Director, Energy, Minerals, and Realty Resources exercising the authority of the Director is responsible for:

- A. Establishing a Bureau-wide coal economic evaluation program.
- B. Providing policy and procedural guidance.
- C. Conducting periodic management evaluations of the BLM's coal evaluation program to assess its compliance with Federal laws and Departmental policies.
- D. Directing and organizing development of training for preparing coal economic evaluations.

1.4.3. The State Director (SD)

The State Director or his or her designee, such as a Deputy State Director (DSD), is responsible for:

- A. Determining whether to approve the FMV of the prospective coal lease or coal lease modification that has been offered for sale.
- B. Serving as the BLM's representative on an arbitration team that will resolve difference between the BLM and the OVS concerning the pre-sale FMV estimate.
- C. Assuring that resources and staff are available to timely determine the pre-sale FMV estimate.

1.4.4. The Deputy State Director for Mineral Resources

The Deputy State Director for Mineral Resources is responsible for:

- A. Recommending to the SD acceptance or rejection of bids received for a prospective coal lease or prospective coal lease modification.
- B. Assuring that the pre-sale FMV estimate is completed in conformance with all applicable guidance;
- C. Assuring that privileged, proprietary, and confidential information is properly secured;
- D. Supervising and approving the pre-sale FMV estimate;
- E. Managing the coal economic evaluation program in the DSD's respective State and providing State policy and procedural guidance;
- F. Managing the work of the evaluation team to assure that each team member is in compliance with team member qualification requirements; and
- G. Managing coal evaluation personnel and related personnel training activities.

1.4.5. Coal Valuation Analyst

A Coal Valuation Analyst is responsible for the preparation of coal evaluation estimates and other reports evaluating the tract geology, mine engineering, market potential, and leasing value for coal leases and coal lease modifications.

1.4.6. Reviewing Coal Valuation Expert

A Reviewing Coal Valuation Expert is responsible for the review of coal economic evaluation estimates and other reports evaluating the tract geology, mine engineering, market potential, and leasing value for coal leases and coal lease modifications to assure that the supporting facts and assumptions are documented, the analysis is complete and supported by the facts provided, the conclusions are adequately supported by the facts and analysis, and in total the valuation is documented sufficiently that an independent entity could replicate the results. The Division of Minerals Evaluation (DME), Office of Valuation Services (OVS), Department of the Interior is the coal valuation review expert.

1.5. References

- A. BLM Manual Section MS-1240, Evaluation Program;
- B. BLM Manual Section MS-1278, External Access to BLM Information;
- C. BLM Manual Handbook H-1790-1, BLM National Environmental Policy Act Handbook;
- D. BLM Manual Section MS-3060, Mineral Reports, Preparation and Review;
- E. BLM Manual Section MS-3420, Competitive Leasing;
- F. BLM Manual Handbook H-3420-1, Competitive Coal Leasing;
- G. BLM Manual Section MS-3432, Lease Modifications;
- H. BLM Manual Handbook H-8120-1, General Procedural Guidelines for Native American Consultation;
- I. 25 CFR Parts 211, 212, 213 216, and 225;
- J. 43 CFR Part 3000, Minerals Management;
- K. 43 CFR Part 3400, Coal Management;
- L. 43 CFR Part 3420, Competitive Leasing;
- M. 43 CFR Part 3430, Non-Competitive Leasing;
- N. 43 CFR Part 3460, Environment;
- O. 43 CFR Part 3470, Coal Management Provisions and Limitations;
- P. 43 CFR Part 3480, Coal Exploration and Mining Operations Rules;
- Q. 43 CFR Part 3590, Solid Minerals (other than coal) Exploration and Mining Operations;
- R. *Uniform Appraisal Standards for Federal Land Acquisition*, Interagency Land Acquisition conference, 2000;
- S. *Economic Evaluation and Investment Decision Methods*, Stermole and Stermole, 2012;
- T. *Mineral Resources Appraisal*, Deverle Harris, 1984; and

- U. Economics of the Mineral Industries, American Institute of Mining, Metallurgical, and Petroleum Engineers, 1985

1.6. Policy

It is BLM's policy that:

- A. Fair market value must be received for each coal lease or coal lease modification established through sale procedures at 43 CFR Part 3420, Subparts 3425 and or 3432, respectively.
- B. The BLM will use appropriate data standards and computational methods and include environmental and tract configuration data, geologic data, engineering and operational cost data, economic and domestic coal market data, and export coal market data.
- C. The BLM will only consider bids received in response to a competitive lease sale that have met or exceeded the minimum bid requirement at 43 CFR 3422.1(c)(2).
- D. The BLM will only accept the highest bid received in response to a competitive sale that has met or exceeded the pre-sale FMV estimate.
- E. The Federal coal leasing processes are as transparent as the applicable laws and regulations allow.
- F. Each pre-sale FMV estimate will be reviewed by the third party reviewing agency, specifically the Division of Minerals Evaluation, Office of Valuation Services, Department of the Interior (DME), to ensure that the report and all supporting documentation meet the standards listed in section 6.1.
- G. The coal economic evaluation process and FMV estimates will be objective, reasonable, and fully documented, and will appropriately consider data such as domestic and export coal market information.

1.7. Files and Records Maintenance

- A. The official case file must be maintained in accordance with the applicable Bureau Records Schedule.
- B. All of BLM's competitive lease sale and lease modification actions or activities will be completely and timely documented in the appropriate case file(s) and within any applicable electronic database that includes, but is not limited to, the Legacy Rehost 2000 (LR2000) automated case recordation system and the Management Information System.
- C. Files or records containing proprietary information must be handled in accordance with the provisions of 43 CFR Part 2, 43 CFR 3481.3, Section 6 of Part II of the standard coal lease form (BLM Form 3400-12), and BLM Manual 1273.
- D. All data, documents, and analyses must be retained in a file until the relinquishment, termination, cancellation, or expiration of a lease and all related appeals are resolved. These data, documents, maps, and analyses will be handled in accordance with the standard BLM record security and retention policies, BLM-H-1278.

1.8. Electronic Data Systems

The data entry to all applicable electronic data systems must be completed as soon as possible after the SD has determined the outcome of a lease sale or lease modification. Data entry must

be consistent with the data standards of each electronic data system and any supplemental guidance.

Chapter 2 Evaluation Team

2.1. Evaluation Team

- A. Each lease-by-application or lease modification will have a unique Evaluation Team (ET), appointed by the DSD. The ET will evaluate the proposed lease or lease modification and will recommend a pre-sale estimate of FMV.
- B. Each member of the ET will document his/her qualifications by providing a current resume of his/her qualifications to the DSD. The resume of each ET member will be part of the official case file for the lease or lease modification evaluation.
- C. One ET member can assume multiple ET duties if his/her resume provides evidence of the skills and knowledge required for multiple duties.
- D. The ET membership must have sufficient experience and skill to evaluate the tract's geology, mine engineering requirements, potential economics and markets, and determine the tract's value. Specific requirements are provided in Chapter 2 of the Coal Evaluation Handbook (BLM H-3073).
- E. The ET is responsible for:
 - 1. Collection of necessary data;
 - 2. Analysis of the data collected;
 - 3. Writing a comprehensive report to document the source data, the analysis, and all related assumptions;
 - 4. Providing a recommended pre-sale FMV estimate; and
 - 5. Responding to and implementing recommendations from the Division of Minerals Evaluation in the Office of Appraisal Services (DME).
- F. Services for all or part of the pre-sale FMV evaluation of a potential lease or lease modification may be completed by a third party contractor. Each employee of the contractor working on the evaluation must provide a resume describing his/her qualifications for the official case file. Selected contractors must meet the same qualifications standards as BLM employees.

Chapter 3 Evaluation Data Requirements

3.1.Introduction

The coal tract evaluation process involves the search, verification, and development of information that forms the foundation for the pre-sale FMV estimate that the BLM will develop. The availability, type, and quality of the data and information will help to determine the evaluation method used to estimate the pre-sale FMV of a prospective Federal coal lease.

3.2.General Data Requirements

The general data requirements are shown in Table 3.1.

Table 3.1
General Data Categories

Category	Description
Environmental and Tract Configuration Data	Data used to establish the tract configuration and develop lease stipulations. Some of this data may be found in the documentation for the environmental analysis that was conducted under the National Environmental Policy Act (NEPA) to support the decision to offer the tract for leasing. The tract configuration defines the geographic scope of the valuation analysis and lease stipulations provide indicators of site specific costs.
Geologic Data	Data used to evaluate the physical and chemical characteristics of the coal to facilitate development and analysis of mine plans. The geologic data is also used for comparison to other coal properties to gauge if the tract being evaluated is similar to other coal properties.
Engineering and Operational Cost Data	Data used to develop mine plans, estimate mining costs, and to provide tract data that can be compared to other coal properties. Cost data will quantify the acquisition and operational costs required to procure and operate equipment and facilities required to

Category	Description
	mine and process the coal in the mining unit.
Economic and Domestic Coal Market Data	Data used to evaluate short and long term coal demand, evaluate expected coal prices and price trends, and to provide tract data that can be compared to other coal properties.
Export Coal Market Data	Data used to evaluate opportunities for the sale of coal from within the mining unit in international markets. Also includes expected international coal prices and price trends, and the existence of infrastructure necessary to transport the coal for exports.

3.3. Data Standards

Data standards address the level of data to be acquired prior to leasing delineated coal tracts. The purpose of the standards is to define the information necessary to make coal leasing and mitigation decisions. The data standards must be developed by the BLM and are specific for each State, region, or applicable Resource Management Plan. Other State or basin specific data standards may be maintained by a BLM SO which can add to or supplement the data standards. The data standards are a starting point for determining whether sufficient data exists to make the determinations necessary to lease. Established standards must be used where possible. Each evaluation report must provide a summary of the source of each data standard used and a summary of the standard that was used in analysis of the tract.

3.4. Computational Models

The assumptions, equations, constants, and parameters used within computational models are all data relative to the valuation analysis. All software used to calculate alternative environmental, geologic, engineering, or economic interpretations must be described, including a summary and justification of all assumptions, equations, constants, methodologies, and parameters used.

Chapter 4 Evaluation Analysis Methods

4.1. Evaluation Steps

Preparation of a coal FMV estimate is done in stages and must be completed in a logical sequence consisting of:

- A. Collection of data concerning the quality, quantity, and character of the coal in the tract being analyzed, as well as other data concerning the tract that may have bearing on the value of the tract;
- B. Technical analysis of the minerals development potential;
- C. Valuation of the coal; and
- D. Estimation of the current pre-sale FMV.

4.2. Timing Requirements

A coal economic evaluation must be completed prior to a lease sale or lease modification offer.

4.3. Preparers

Preparers of coal economic evaluation estimates must be a coal valuation expert, or a team of experts who collectively have the multidisciplinary technical expertise in geology, mining, economics and valuation practice. Mineral evaluation experts are qualified in valuation of minerals.

4.4. Standards and Procedures

The coal evaluation process must conform to established BLM standards and procedures as established in this manual and in BLM Manual Handbook H-3073, Coal Evaluation.

4.5. Non-BLM Use or Preparation of FMV Estimates

Coal FMV estimates may be prepared by the BLM for other entities provided that established BLM standards procedures are followed; for example the BLM prepared a pre-sale FMV estimate for lands transferred to the Utah State Institutional Trust Land Administration in settlement of state land holdings within the Grand Staircase Escalante National Monument or for a tribal entity. Similarly, the BLM may use coal FMV estimates and related reports by other entities, for example the Office of Valuation Services, an evaluation completed by a contractor for the BLM, or an evaluation completed by another entity for leasing state lands, when documentation is provided that the non-BLM preparing entity has met all BLM standards and procedures.

4.6. Technique

The BLM standards and procedures in Manual Handbook 3073 provide guidance on the techniques that will be used for coal economic evaluations.

Chapter 5 Evaluation Report

5.1. Written Report

A written coal evaluation report is required. The content of the coal evaluation report must fully explain, substantiate and document the pre-sale FMV estimate in adequate detail sufficient that an independent entity can replicate the results. A coal evaluation report must:

- A. State clearly the purpose and function of the evaluation report;
- B. Provide a summary of all assumptions and limiting conditions that affect the evaluation;
- C. Describe the property boundary, all allowable activities on the property if leased, and all restricted or prohibited activities on the property if leased;
- D. Contain a detailed description of the data, mineral analysis, valuation analysis, and the value estimate;
- E. Provide an executive summary of the data, mineral analysis, valuation analysis, and estimate;
- F. Provide an estimate of the level of confidence that the BLM has for the data, mineral analysis, valuation analysis, and estimate;
- G. Explain the apparent highest and best (most valuable) use or compatible combination of uses of the property relative to potential buyers and sellers;
- H. Provide the effective date of evaluation, the completion date of the evaluation report, and the name and signature(s) of the coal valuation expert or team of experts preparing the report; and
- I. Properly protect proprietary or sensitive data consistent with applicable laws and regulations, including, but not limited to, the Freedom of Information Act (FOIA) 43 CFR Part 2 and BLM Manual Section 1273.

5.2. Report Standards

Evaluation reports must follow BLM guidance and nationally recognized professional evaluation standards as established in the Manual and BLM Manual Handbook 3073.

5.3. Forms

Evaluation forms may be developed as required and used.

5.4. Recordation

The copy of all coal evaluation reports and review analysis must be filed in the official case files for which the economic evaluations were completed. A copy of the report, review, and the background data (including proprietary and sensitive data) used to derive the estimated value will be retained in a file or file system that will protect the proprietary, sensitive, or confidential data from disclosure.

Any request for a substantive correction or revision of an evaluation report, from DME or from BLM managerial review, must be documented and the original unrevised report retained in the official case file. If a revision to a completed and signed economic valuation report is required, a

written explanation and the new report must be attached to the original report and similarly filed with the original report.

Chapter 6 Evaluation Review

6.1. Mandatory Review

Each coal evaluation report, and all supporting reports and documentation, must be reviewed by Division of Minerals Evaluation, Office of Appraisal Services, Department of the Interior (DME). The review will assure that:

- A. The pre-sale FMV estimate in the report has been prepared in accordance with BLM standards and procedures and with available and applicable nationally accepted standards.
- B. The economic evaluation report contains and refers in its file to the information necessary to fully explain, substantiate, and document the pre-sale FMV estimate, and includes, as appropriate, analysis of economic and domestic coal market data and export coal market data.
- C. The reported pre-sale FMV estimate is an objective and reasonable estimate of the property's value and appropriately considers and analyzes relevant information on domestic and export markets.
- D. The supporting case file(s) supporting the pre-sale FMV estimate are complete.

6.2. Reviewer Comments

All questions or comments from a Division of Mineral Evaluations (DME) review concerning the pre-sale FMV estimate, the report, or the supporting documentation must be in writing and returned to the ET, who prepared the coal evaluation report for response. The DME will not independently revise coal evaluation estimates.

The ET must provide a written response to DME's concerns and comments that explain and document the ET's response to each concern or comment including:

- A. Why the ET agrees or disagrees with the comment; and
- B. Actions the ET has or has not taken to address the comments or concerns of the DME review.

6.3. Lease Sale or Offer

Completion of a review of the pre-sale FMV estimate is documented by an official response from the DME and incorporation of all recommendations provided by the DME. A lease sale or a lease modification will not be offered to the public or an applicant, respectively, prior to completion of the DME review of the pre-sale FMV estimate.

6.4. Third Party Reviewing Agency

The Division of Minerals Evaluation, Office of Appraisal Services, Department of the Interior (DME), is the designated third party reviewing agency for coal evaluations.

Chapter 7 Evaluation Oversight

7.1. Quality Control

The applicable BLM State Office or the BLM Washington Office will complete systematic review on a periodic basis to ensure program quality control. A periodic review will assess coal evaluation activities to ensure:

- A. Effective implementation of applicable directives;
- B. Coal evaluations rely on appropriate data;
- C. Each coal evaluation received and incorporated results of a third party review;
- D. Bids accepted for coal tract in the lease sales have met or exceeded the pre-sale FMV estimate;
- E. Propriety and confidential information and data are being protected;
- F. The chain-of-custody of proprietary and confidential information is appropriately recorded;
- G. To the greatest extent allowable under applicable laws and regulations, the non-proprietary and non-confidential information contained in the pre-sale evaluation data, reports and conclusions must be made available to the public; and,
- H. Appropriate allocation of personnel, training, and equipment meet the program goals and objectives.

7.2. Review Methods

A BLM State Office or the BLM Washington Office program review will follow BLM-approved management review methods and tools. BLM Manual Section 1240, Evaluation Program, provides information concerning the BLM's evaluation policy and procedures.

Glossary of Terms**-C-****Coal evaluation estimates:**

Various types of estimates derived from economic and technical analyses, which are used and often required for making various BLM land management decisions. The estimates include fair market value, commercial quantities, valuable deposit, and other determinations such as those for royalty reductions.

Coal evaluation process:

The process of mineral and economic data collection, mineral analysis, valuation analysis, fair market value, other economic determinations estimate, and review of the estimate.

Coal evaluation report:

A detailed written description of the lease or mineral right, the data collected, the valuation analysis, and the fair market value or other economic determination estimate. The coal evaluation report may include sub-reports on geology, mine economics and engineering.

-F-**Fair market value estimates:**

This is the most probable price in cash, in terms equivalent to cash, or in other precisely revealed terms, for which the evaluated property will sell in a competitive market (knowledgeable buyer and seller) under all conditions requisite to fair sale, with buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress.

-H-**Highest and best use:**

The reasonable and probable use or consistent set of uses of the whole property, which supports highest fair market value for the property, as of the date of the evaluation. Other uses of the property must be consistent with highest and best use to make fair market value estimates. In this regard zoning may constrain the highest and best use of the property and the fair market value of other economic determination estimates for mineral rights.