IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

WILDEARTH GUARDIANS, DEFENDERS OF WILDLIFE, and SIERRA CLUB Plaintiffs, vs. KEN SALAZAR, Secretary, U.S. Dept. of Interior, and ROBERT V. ABBEY, Director, U.S. Bureau of Land Management, Federal Defendants, and STATE OF WYOMING, NATIONAL MINING ASSOCIATION, and WYOMING MINING ASSOCIATION Defendant-Intervenors.	)))))))))))))))))))	Civ. No. 1:11-cv-00670-CKK

DECLARATION OF TOM SANZILLO

I, Tom Sanzillo, under penalty of perjury, affirm and declare that the following statements are true and correct to the best of my knowledge and belief.

I. QUALIFICATIONS

1. My name is Tom Sanzillo. I am currently employed as a Senior Associate of TR Rose Associates, a consulting firm in New York City that specializes in financial and public policy advice. For the past four years, my work has consisted of research, reports, testimony and advice on construction costs of coal plants and alternatives, financial reviews, credit analysis, coal market and price analyses, rate impact assessments, federal

financing, load forecast reviews, energy contracts and a series of other topics related to electric generation.

2. I have prepared and submitted testimony related to coal before the Iowa Utility Board, Public Service Commission of Wisconsin, Colorado Public Utilities Commission and Minnesota Public Utility Commission. I have authored or assisted with formal analyses on portions of coal plant finances in New Jersey, Oregon, Michigan, Colorado, Texas, Kansas, Illinois, Georgia and Indiana. I have co-authored or contributed to published studies on coal-to-liquids plants, federal subsidies of energy generation and investment related financial risks to coal plants. I have also assisted with certain ongoing client projects related to coal reserve measurements, program and financial performance of the United States Department of Agriculture's Rural Utility Service, coal leases in the Powder River Basin (PRB) and financial profiles of independently owned utilities and mining companies. I have served on the long-term management task force for the Long Island Power Authority and as a financial advisor to the New York State green jobs initiative.

3. From 1990 to 2007, I served in senior management positions to the publicly elected Chief Financial Officers of New York City and New York State. From 2003 to 2007, I served as the First Deputy Comptroller for the State of New York. I was responsible for a $150 billion globally invested public pension fund. I supervised the fiscal oversight of the state budget and 1600 units of local government budgets. I was responsible for the accounting (including certification of the annual financial statement of the State of New York), accounting standards and public debt offerings for same. The job also entailed the administration of the audit programs for all state agencies, public

authorities (including power generation authorities) and local governments (an estimated program of 800 audits annually). The Comptroller is also the Chief Procurement Officer for New York State. The Comptroller's Office reviews and acts upon state contracts (including revenue contracts and asset sales), an estimated 44,000 contracts worth $85 billion annually. One estimate places the level of public assets under the State Comptroller's watch at over $700 billion. I served as the Acting New York State Comptroller from 2006-07.

II. OPINION

4. In my opinion, the Bureau of Land Management ("Bureau" or "BLM") was not recovering fair market value for its coal leases in the Powder River Basin in the period prior to January 28, 2011.

III. BASIS FOR OPINION

A. SUMMARY

5. The federal government holds a virtual monopoly on coal reserves in the western part of the United States. Its policies and actions set the terms, conditions and market price of coal in the west, and shape coal markets throughout the United States.

6. In 1982 the Bureau of Land Management issued leases for 1.6 billion tons of coal at below fair market value. The sale set low market prices for coal leases and unleashed downward pressure on coal prices in the PRB and nationwide. BLM's departure from fair market value standards prompted a scandal, and a finding that the agency charged $100 million less for the coal than it was worth.

7. The flawed process carries through to today's BLM operations. PRB coal expanded its market share of power generation from the 1970's to the present from 5% to 45% on the basis of its below market price.

8. In addition, BLM's formal opinions evidence no consideration of obvious market factors pushing the price of PRB coal upwards – greater domestic demand, rising export expectations and geological factors that cause mining of PRB coal to be more expensive. This 'studied ignorance' simply allows the agency to continue with low price valuations and lease sales at below fair market value.

B. DETAILED BASIS

9. Coal production in the United States is experiencing significant and complex changes.

10. The source of coal mined, its use, customer base and price are all changing. The net effect of these changes is greater pressure on coal producers in the Powder River Basin to add more coal reserves to their company portfolios. The new reserves will meet demands from domestic utilities seeking to replace depleted coal reserves from Central Appalachia and diminished availability of coal due to growing export demand from all regions (including the PRB). Annual tonnage yields of PRB coal have increased almost without exception for three decades. Annual production can be expected to rise at a modest, steady rate going forward, but under new geological and economic conditions. The cumulative impact will be an even higher level of national market share for PRB coal producers than its already dominant 45% share as well as continued growth in annual tonnage production.

11. The nation's annual coal production of approximately 1.1 billion tons takes place in four major areas: Central Appalachia, Powder River Basin, Illinois Basin and Northern Appalachia.[1] For decades Central Appalachian production dominated the nation's coal supply. The region produced 70% of the nation's annual coal production.[2] The coal is of high energy (10,500-14,800 Btu) and low sulfur content. By 2010, Central Appalachia's coal producing role diminished substantially. It now produces only an estimated 17% of the nation's coal.[3] According to the Energy Information Administration (EIA) by 2035 the region will only produce 7.7% of the nation's coal.[4]

12. The fundamental reason for this decline in production is geological. Central Appalachia has been the most intensively mined region in the nation for the longest period. Coal reserves are depleted. The remaining reserves still possess high energy and low sulfur content. However they are in more difficult locations to mine.[5] The complexity and increasing costs of mining in Central Appalachia have led producers to adopt controversial mining techniques such as mountain top removal. With more complex mining techniques comes increased oversight and regulation from environmental and health and safety regulators.

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[1] The Uinta Basin consisting of mines in Colorado and Utah and mines in other states constitute approximately 16% and are considered less important for the purposes of this analysis.
[2] United States Geological Survey, *Production and Depletion of Appalachian and Illinois Basin Coal Reserves,* The National Coal Resources Assessment Overview, U.S. Geological Survey Professional Paper, 1625-F. Hereinafter "USGS-CAPP/ILB"
[3] Energy Information Administration, *2010 Third Quarter Coal Report*, Table 2: Coal Production by State, January 2011. (EIA-3Q2010).
[4] Energy Information Administration, *2010 Annual Energy Outlook*, Coal Supply Prices, Coal Production by Region, Central Appalachia, (Reference Case 2035).
[5] For a discussion of the history of mining in the area and depletion see: "USGS-CAPP/ILB"

13. These factors have led to dramatic increases in coal's production costs.[6] Consequently, rising overhead has made coal less competitive as a source of fuel for the nation's coal burning power plants. Most of the major utilities have indicated that they no longer consider the use of Central Appalachian (CAPP) coal an economically viable fuel for their coal plants.[7] It is simply too expensive.

14. The reasons for the loss of Central Appalachian coal from the nation's coal supply, and more specifically as a source of fuel for coal fired plants are permanent.[8] Market forces cannot reverse the geological reality of depleted reserves for the nation's fleet of coal fired power plants.

15. Currently, the Powder River Basin[9] mines are the most prolific producers of coal in the nation. This has not always been the case. In 1970, PRB coal accounted for only 5% of the nation's coal supply.[10] In 2010, PRB coal produced 44.7% of the nation's coal.[11] According to the EIA by 2035 the region will produce approximately 53.7% of the nation's coal.[12]

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[6] Rick Navarre, President and Chief Commercial Officer, *Expanding Markets and Productivity Growth Opportunities*, 2010 Analyst and Investor Forums, June 17, 2010, Slide 40. Hereafter: "Peabody-Navarre"
[7] See: Coal and Energy Price Report, *Market Commentary*, March 19 and 30, 2010 for coverage of Santee Cooper's coal deal for ILB coal and indications from Progress Energy, Duke and Southern Company's declining interest in CAPP coal. See: *American Electric Power: American Electric Power Seeks Bids for Coal*, Trading Markets.com, March 23, 2010.
[8] Arch Coal, Inc, *Investor Presentation*, March 10, 2010, Slide 2.
[9] The Powder River Basin "consists of the Montana counties of Big Horn, Custer, Powder River, Rosebud and Treasure and the Wyoming counties of Campbell, Converse, Crook, Johnson, Natrona, Niebarra, Sheridan and Weston." http: www.eia.gov/tools/glossary/index.cfm?id=c. The BLM website makes distinctions between federally leased coal and all coal leased in its related mines. When discussing overall production figures for this affidavit I use the Energy Information Administration's Wyoming Powder River Basin and Western Montana figures as a proxy for the Powder River Basin and federally leased coal. Other coal is mined in Montana that is not covered in these aggregates. .
[10] Energy Information Administration, *Coal Production in the United States: An Historical Overview*, Table 1. Historical Coal Production by Type of Mining and by Coal Rank, Selected Years, October 2006, p. 3. (EIA-Historical).
[11] EIA-3Q2010, Table 2: Coal Production by State, January 2011.
[12] Energy Information Administration, *2010 Annual Energy Outlook*, Coal Supply Prices, Coal Production by Region, Northern Plains (Reference Case 2035). Note: The Annual Energy Outlook long-term outlook

16. The Illinois Basin produced 15% to 24% of the nation's coal from the 1970's through early 1990's.[13] Since then production levels and the Illinois Basin's annual tonnage as a percentage of the whole have declined. In 2010, ILB mines produced 9.6% of the nation's coal, an increase.[14] Coal producers anticipate the region will grow significantly in the coming decades.[15]

17. Northern Appalachian mines are expected to increase production at modest levels in the coming years. The region has produced a steady rate of 11% to 12% of total national production. According to the Energy Information Administration by 2035 the region will produce in the 12% to13% range.[16]

18. The largest coal producers in the nation, Arch Coal and Peabody Energy, generally support the forward looking estimates of the EIA. Typically, coal producer long-term estimates are not publically available. However, projections through 2015 that are a matter of public record suggests intensive mining in the PRB. Collectively, Arch and Peabody have substantial holdings in every major coal producing region of the country (including the Uinta Basin). Arch Coal estimates PRB annual production levels in the 600 million ton range by 2015.[17] (The PRB's production in 2010 was 485 million tons). Similarly, the EIA estimates PRB production at 570 million by 2015.[18]

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presents the PRB and includes North Dakota. Typically, North Dakota includes approximately 2.0% of annual coal production.

[13] USGS-CAPP-ILB, p. 3.

[14] EIA-3Q2010, Table 2: Coal Production by State, January 2011.

[15] Christina A. Morrow, Vice President Investor Relations, *Jefferies 6th Annual Global Industrial and A&D Conference*, August 10, 2010, Slide 22.

[16] Energy Information Administration, *2010 Annual Energy Outlook*, Coal Supply Prices, Coal Production by Region, Northern Appalachia (Reference Case 2035).

[17] Deck Slone, *Raymond James 3rd Annual Coal Investors Conference*, November 11, 2010, Slide 14. (Slone-Arch).

[18] Energy Information Administration, *2010 Annual Energy Outlook*, Coal Supply Prices, Coal Production by Region, Northern Appalachia (Reference Case 2015). The EIA's updated 2011 AEO has substantially reduced the 2015 Northern Plains estimate to 534 million. Both Peabody and Arch remain more bullish.

19. In addition to the shift in production away from the Central Appalachian region, coal exports and the use of coal in steel making (rather than burning in power plants) are changing the coal market in the United States. Increasing quantities and proportionate shares of annual tonnage from Central Appalachia, Northern Appalachia and the Illinois Basin are currently being sold, and estimated to be sold in the future to export and metallurgical markets.[19] Similar patterns of production and marketing of coal are taking place in the Illinois Basin and Northern Appalachia. Coal producers in these regions are concentrating investment and marketing on sectors other than U.S. domestic electricity generation.[20]

20. Coal producers in Central Appalachia, Northern Appalachia, and Illinois are interested in thermal and metallurgical export markets. The loss of domestic utility customers requires that coal producers find replacement markets if their reserves and share price are to retain value. The loss of domestic markets is taking place at a time when the international demand for coal, particularly metallurgical coal, is rising.[21] United States producers have always exported some coal but have served largely as swing suppliers during periods of strong international demand or supply disruptions. Central and Northern Appalachian coal reserves are of sufficiently high quality to allow for much of the coal to be sold to metallurgical markets for steel production. The lower value coal from the region is also valuable on international markets as a fuel source for

[19] Don Blankenship, Chairman and CEO, Massey Energy, *Steel Demand Globally and in the United States, "Go East Young Man, Go East"*, Coaltrans America Conference, January 28, 2010. See also: Slone-Arch, Slide 20.
[20] Barry Caswell, *Foresight Energy looks to add up to 8 longwalls in Illinois Basin*, SNL Coal, November 4, 2010.
[21] Peabody-Navarre, Slides 7-10.

coal fired power generation. U.S. coal producers are looking to move from swing supplier status to a more integrated role in the international supply and demand chain.

21. The benefits to producers who shift production and marketing to export activity can be seen in 2010 coal price data. The price of a delivered ton of coal to a U.S. domestic utility was $44.69 per ton (all coal, from all regions delivered to all utilities through the third quarter of 2010).[22] The average price of a ton of coal received by a U.S. coal producer on the export market in 2010 (for the first three quarters) was $118.43 per ton.[23] For exported metallurgical coal the average price through the third quarter of 2010 was $140.73 per ton[24] and for thermal exports it was $65.39 per ton.[25]

22. In 2010, 81.5 million tons of coal was exported from the United States, up from 59.1 million tons in 2009. What would appear to be an immaterial level of export activity (81.5 million of 1.1 billion tons, or 8%) had significant impacts on the revenue picture of the major CAPP, Northern Appalachian and Illinois Basin coal producers.[26]

23. These changes to domestic production and export had an impact upon the Powder River Basin and its coal producers. As more coal is exported abroad from other regions greater pressure is placed on PRB resources to fill the void at U.S. power plants. As discussed above, over the last few decades coal production has moved westward and PRB coal burning has moved eastward and south.[27]Coal producers in the region note that domestic U.S. coal fired power plant demand for coal is likely to increase even with the

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[22] United States Energy Information Administration, *Electric Power Monthly,* Table 4.1 Receipts, Average Cost and Quality of Fossil Fuel (all sectors through October, 2010), January 2011.
[23] EIA 3Q2010, Table 8: Average Price of U.S. Coal Exports.
[24] EIA 3Q2010, Table 12: Average Price U.S. Metallurgical Coal Exports
[25] EIA 3Q2010, Table 10: Average Price of U.S. Steam Coal Exports
[26] See for example: International Coal Group, *Howard Weil Energy Conference: Growing Metallurgical Production* (Metallurgical as Part of Total Tons Sold), March 22, 2010, Slide 17.
[27] Timothy Considine, *Powder River Basin: Powering America,* Wyoming Mining Association, December 21, 2009, p.19.

growing level of retirements of coal plants in the country.[28] They cite the addition of new coal fired generation, more intensified use of existing plants, increased environmental regulation and some switching from other types of coal as the basis for continued positive projections for production from the region. According to coal producers, as markets continue to change, this 'backfilling' of demand will occur.

24. PRB coal producers are looking to more than just enhanced demand from domestic electric generation for future sales. Like the other regions of the country, export sales enhance revenues and profits. Coal producers have begun increasing exports from the PRB,[29] announcing new deals,[30] exploring new markets[31] and investing in new rail and shipping capacity.[32]

25. Although export sales from the PRB are currently quite small they can have an important impact on company revenues and corporate bottom lines. For example, Cloud Peak Energy reports 3.3 million tons of coal exported in 2010.[33] This constitutes 3.5% of the company's total production from its owned/leased mining assets.[34] In 2010 Cloud Peak's United States domestic sales of coal accounted for 87.3% of its revenues and "Other" (Asia and Canada) accounted for 12.7%.[35] Stated another way, it appears that 3.3% of Cloud Peak's production was exported and the sales revenue from those transactions accounted for 12.7% of total company revenues.

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[28] Slone-Arch, Slide 12-13.
[29] Cloud Peak Energy, Form 10K, March 2, 2011, p.108.
[30] Arch Coal, Inc., *Arch Coal announces agreement with Canada's Ridley Terminal for Pacific Coast Exports*, January18, 2011.
[31] Navarre-Peabody, Slide 42 specifically addresses Peabody's view of potential for PRB sales in the Asia Pacific markets: South Korea, Japan, Hong Kong, China and India (an estimated market of between 140 and 260 million tons per year). Slides 20, 30, 37 provides information on nature of many of the larger individual markets.
[32] Slone-Arch, Slide 12.
[33] Cloud Peak Energy, *Second Quarter 2011 Investor Presentation* July 25, 2011, p.16.
[34] Cloud Peak Energy, *2010 Form 10K*,(date), p.7. "Cloud Peak -2010 10K."
[35] Cloud Peak-2010 10K, p. 108.

26. Peabody Energy has also defined the financial benefits of the export markets. In a December 2010 release to investment analysts covered in Platts Coal Trader the company provided the following structure of coal sales revenue for China. Peabody estimated it could receive $96.28 per ton for 8800 Btu coal in 2011 in China. The overall transportation costs would be $58.71. This would leave a 'net back' of $26.02. Peabody compared the net back to the U.S. market price of $13.65 per ton.[36]

27. According to Peabody's 2010 Third Quarter earnings report its western coal holdings were generating a per ton margin of $5.14. General cost of production was $11.73 (cost of production combines the company holdings in Colorado and PRB).[37] Using a very simple calculation the 'net back' minus cost of production would yield the company a margin of $14.29 from the China scenario. This is compared to its overall margin for its western operation of $5.14. The difference in margins for the company is considerable. The incentive to export is clear.

28. These production and price trends should form part of the basis for the underlying data inputs in the fair market appraisal process in BLM's Fair Market Leasing Program. BLM procedures for assessing Fair Market Value should generally be governed by an internal departmental Handbook. The Handbook serves as a guide to agency staff who conduct fair market appraisals. The historical basis for the program and policy guidelines is set forth in the Handbook, and more fully described below.

> In February1984, the Commission (Linowes Commission) transmitted its findings and recommendations to the Department of the Interior and the Congress. The Commission recommendations concerning appraisal procedures focused on factors and information that should be considered or obtained by the Government as part of the appraisal process. The Commission recognized that uncertainty is inherent in the appraisal process and recommended that the Department develop methods and procedures that are "unassailable not only in fact but also in

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[36] Peter Gartrell, *Peabody Projections show lucrative Chinese market for PRB coal*, December 6, 2010.
[37] Peabody Energy, *Peabody Energy Announces Results for the Quarter Ended September 30, 2010,* October 19, 2010.

> public perception". The Commission also found that a lack of formal guidance precluded external review of appraisal procedures and suggested the development of guidelines to promote uniformity among field office appraisals and to open the procedures to public inspection.[38]

29. "Fair market value" is defined as "the amount in cash, or terms reasonably equivalent to cash, for which in all probability the property would be sold by a knowledgeable owner willing but not obligated to sell to a knowledgeable purchaser who desired but is not obligated to buy."[39] According to BLM's operational Handbook,[40] the Fair Market Value (FMV) of a coal tract proposed for development by a coal producer can be derived in one of two ways: a comparable sales method or an income method.

30. The comparable sales approach is preferred. The comparable sales approach accepts the value of recent sales in comparable properties as the new market value for a proposed coal tract of similar quality. The strength of this approach is its grounding in real-world, market based transactions. The presumption is that if a prior buyer and seller agreed to a price on a similar property within a reasonably similar timeframe, than the government's acceptance of that price on a coal tract of similar size and coal quality is a reasonable measure of fair market value.

31. Coal tracts may vary, so BLM's stated method allows for adjustments based on location, stripping ratios, coal quality, seam thickness and other factors. Larger market drivers such as regulatory rules and coal price changes may also cause adjustments to comparable properties. The adjustments are made, plus or minus, and a discount factor is applied according to BLM judgments. All of the adjustments are

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[38] Department of Interior, Bureau Land Management, *H-3070-1 Economic Evaluation of Coal Properties,* Release 3-285, April 7, 1984 ("BLM-Handbook") , p. I-1.

[39] BLM-Handbook, I-3

[40] BLM-Handbook . The following is a summary of several pages of detailed methodological guidance provided to agency staff. This is for illustration purposes and does not intend to be exhaustive in capturing the complexity of the coal tract appraisal process on any given tract.

applied in a manner that allows for a presentation of the price on a discounted per ton value basis. The discounted per ton value of coal is a "snapshot" of the future price of coal over the 20 year period expressed in today's dollars. The per ton calculation is then multiplied by the total tonnage derived from the Mine Plan. Each property is then assigned a comparable sales value. The comparable sales are then weighted, compared and reconciled. A single value for the proposed site is decided upon by BLM as the Fair Market Value (FMV).

32. BLM's comparable sales approach can be summarized as follows:

Table 1

Simplified Version of BLM Comparable Sales FMV Method

FMV Property # 1 = Original Sales Price/Per Ton +/- (NPV Adjustments)
FMV Property # 2 = Original Sales Price/Per Ton +/- (NPV Adjustments)
FMV Property # 3 = Original Sales Price/Per Ton +/- (NPV Adjustments)
FMV BLM Coal Tract = Weighted Adjusted Average (Comparable Sale # 1, 2,3)

The FMV derived under the comparable sale approach is expressed as both a per ton value and a total value for the lease.

33. The second approach applies BLM's general methodology to create a financial model for the specific coal tract under consideration. This method is deemed less desirable because it requires more judgment and hence heightens the risk of speculation and bias in the actual appraisal outcome. In short, the estimated annual revenues are subtracted from the estimated annual expenses. A discount rate (approximating rates of return) is factored in and various adjustments are made for inflation, taxes, and uncertainty scenarios. The final amount is divided by the total tonnage from the Mine Plan. The net amount, expressed on a per ton basis, represents the net amount available for the purposes of the lease – an effective rent payment. To obtain

the FMV, BLM multiplies the per ton discounted net margin value of the tract by the total tonnage in the mine plan.

34. A simplified version of BLM's income sales approach is:

Simplified Version of the BLM Income Approach

FMV=(NPVrevenues-NPVexpenses)/total tonnage

35. Under the current program, the fair market value is not disclosed to prospective bidders. A sale date is established and applicants are asked to submit bids that they believe meet or exceed BLM's fair market value. If there are multiple bids on a given tract, the bidder with the highest offer wins, provided the offer also meets or exceeds BLM's undisclosed fair market value. The winning bidder must then make arrangements to pay for the lease. This amount is called the Bonus payment. It is split 50/50 with the state government where the coal is mined as are the royalty revenues paid on actual tonnage produced and sold.

36. Whatever method is used, BLM's Handbook attempts to capture market changes either through adjustments to comparable sales or through the dynamics of accurate data collection and forecasting in the income approach.[41] In theory, if there are strong markets, the coal sold will provide revenue that significantly exceeds mining costs. A stronger market and higher coal price should be captured in a higher fair market value calculation and ultimately a higher bonus payment. The FMV should be set higher, all other things being equal, to reflect this stronger market. If the BLM process is robust the FMV process should capture a rising price environment. Similarly, conditions intrinsic to the coal tract that might increase or decrease the costs of production should adjust the

[41]BLM Handbook, p. II-3. The Data Requirements section of the Handbook stresses a meticulous concern for documentation consistent with the standards set by the Commission and articulated in the introduction.

value in the FMV appraisal process. The combination and weighing of the factors ultimately sets the final valuation.

37. These valuations are distorted downward. The price of PRB coal to coal producers has been kept low. The 1982 example shows this fact and the downward pressure on PRB prices clearly. The price of coal assumptions used in subsequent BLM valuations reflects this distortion. The bias is effectively carried forward both in the actual marketplace and in the BLM fair market value calculations. BLM refuses to publicly release information it has promised publicly on its lease valuations. The net outcome of its lease activity has been the consistent production of low priced coal based on below fair market lease values.

38. The bonus payment to the federal government to secure the lease is supposed to be established as a function of the FMV. The United States government foregoes revenue, effectively subsidizing coal producers leasing costs if the BLM appraisal is set too low. The coal producer is then provided with market leverage which can be used in several strategic ways. One way, is the use of lower value coal by coal producers to provide low cost coal on the market to utilities. The net effect, in the case of the PRB, has been to see the national market share from the region increase from 5% in the 1970's to its current share of 45.7%. PRB coal producers combine the historically low production costs with the below market coal valuations in the region for substantial market leverage. For coal producers, what is lost in immediate price gains is made up in quantity and long-term customers. When comparative selections are made with other power alternatives like nuclear, hydroelectric, solar, wind and natural gas, a long-term, stable, low cost fuel has been a critical advantage to coal-fired power generation for utilities and regulators.

39. The estimations provided by Peabody Energy assume that coal sold in current markets for export supports a significantly higher premium, or net margin, above the normal estimated cost of mining than coal sold in domestic utility markets. It is likely that a coal tract will produce coal for both domestic and export purposes.[42] If export revenues are factored in, total revenue from the coal tract will rise and should increase the fair market value of the lease, that is the bonus payment.

40. There have been no analytical presentations made public by any of the PRB coal producers that quantify how increased pressure from domestic generation will cause prices and profits to rise. However one can see from this brief explanation of BLM's fair market value appraisal method how the leasing process works and what the implications of rising coal prices should be for the Fair Market Value appraisal, the bid process and bonus payment. For example, Peabody Energy has projected an upper limit for its 8800 PRB coal pricing through 2014 of $36.00 per ton.[43] While no analytical rationale accompanied the estimates, such a pricing scenario would enhance the already ample "premium" that Peabody has demonstrated in its China scenario.

41. BLM's Handbook states that a Market Study of coal prices should be used to accompany the revenue assumptions used to support the fair market appraisal.[44] The

[42] Under current conditions export demands from the Powder River Basin are not yet strong enough for a single mine to be devoted entirely to a foreign consumer. Cloud Peak's Signal Creek mine, for example, provided 3.3 million tons of coal in 2010 for export purposes, yet its total output was 19.3 million tons. The 16 million tons was sold for U.S. domestic electricity generation. Over time entire mine operations are likely to be devoted to exports but that is not the case in the PRB currently. As the undervaluation of the mines become more and more evident to global investors the PRB will become the target for international trading and investment houses.

[43] Christina Morrow, Vice President, Investor Relations, Peabody Energy, *Jefferies 6th Annual Global Industrial an R & D Conference*, August 10, 2010, p. 23.

[44] "The production schedule developed from the mine plan should be combined with estimated or known coal price information, from the market study, to determine expected revenues associated with the mine operation. Projected coal prices and salable production should be estimated based on thorough and documented market research and this should be reconciled with mine plan production.", BLM Handbook, p. III-16.

Handbook does not provide specific guidance to agency operational staff regarding the conduct of the market assessment or the type and quality of data used to form the basis of the coal price analysis on any individual tract. However, the Handbook does provide broad discretion to agency officials regarding the type and quality of information they use to help inform judgments related to the values supplied in the discounted cash flow analysis. Coal price presentations to investors (presumably supported by more formal company forecasting) could serve as valid indicators of impending upward price movements.

42. The critically important and equally complex relationship between the market price of coal and FMV was a topic of concern to the GAO in its lengthy 1979 study of issues facing the future of the program.

> The estimation of coal price variations affects the estimation of fair market value and the determination of the minimum acceptable bid. For example, if fair market value is based on an expected rise in coal prices through the life of the mine but bidders expect a smaller rise, the lease sale bids may be less than the minimum acceptable bid. Consequently, the Government might have to hold more lease sales then would otherwise be necessary to meet Energy production goals, provided some adjustments were made so that successful sales would be possible. On the other hand if the Government underestimates future coal prices compared to bidder's estimates, fair market value estimates may be too low resulting in successful lease sales that may not provide a fair return to the Government.[45]

43. What can occur, indeed what I contend has occurred and is continuing, is that the fair market value established by BLM is based on coal prices that are far below what producers would receive on the market. In the broader economic arena where coal is bought and sold, the FMV lease process does not capture the full value of the coal.[46]

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[45] United States General Accounting Office, *Issues Facing the Future of Coal Leasing*, EMD-79-47, June 25, 1979. "GAO-Coal Future"

[46] If, in fact a rigorous fair value process was employed by BLM then the market price of coal would equal the all-inclusive cost of production as described in its Handbook plus the cost of transportation.

Instead the low price allows for the distribution of a downstream economic benefit[47] to utilities in the form of cheap fuel and lowered electricity costs. The coal price is ultimately a material outcome of BLM's monopoly leadership and not an objective, accurate reflection of a reasonably determined market value.

44. The current markets are dynamic. Robust analytical operations will be required if BLM is to maintain solid data and an accurate ongoing assessment of market realities. The FMV appraisal method could allow for a more objective reading of market conditions and price, but it does not. The roots of the failure to adhere to the FMV standard stretch back to the 1980's when it was a scandal. Today, that same failure is standard operating procedure. Promises of reform have been not been kept. The public has no evidence that BLM has actually improved its processes or now adheres to a fair market standard. At present, one critical program practice by BLM is to keep the fair market appraisal, coal tract valuations and supporting documents confidential. Despite this limitation, information that is in the public domain points to significant red-flag warnings of lax performance on its fair market valuations. Those red-flag warnings strongly suggest that BLM continues to lease coal for amounts below its fair market value.

45. The leasing program has not historically lived up to its mandate to lease coal at fair market value. In April 1982 under Secretary James Watt at the Department of the

[47] One treatment of this topic describes this downstream economic benefit as a form of "rent". This treatment divides the market price of coal broadly into cost of production factors – those expenses directly related to the mining process, and, rent. Rent being all those costs covered in the market price of coal extraneous to the mining process but deemed economically necessary for its consumption. This treatment includes in rent transportation, taxes and royalties and the benefits derived by utilities. For this application see: Scott Atkinson and Joe Kervliet, *Measuring the Multilateral Allocations of Rents: Wyoming Low Sulfur Coal*, RAND Journal of Economics, Volume 17, No.3, Autumn, 1986, pp. 416-430. Atkinson finds that the largest allocation of value in this rent distribution is the utility evidencing the sizable value not captured in the price of coal. Atkinson's paper is not concerned with fair market lease valuations. It treats as objective economic fact that which I treat as a series of policy choices.

Interior, of the newly elected Reagan administration, the agency offered 11 tracts with 1.6 billion tons of coal for lease. The bid process used at the time was new and reflected changes to address prior program problems. Despite the modified program, the decision to proceed with new coal tracts proved controversial. BLM published a minimally acceptable price in the bid solicitation documents. An applicant had to offer a bid of at least this amount for the bid to be considered responsive. The public bid solicitation stated that the agency would rely on a post-sale acceptance criteria to determine the final award of the lease.

46. Prior to the release of the bid solicitation a series of decisions were made at the Department of Interior that would have a significant and lasting impact on coal leasing, production and markets in the United States for decades.

47. The Reagan Administration came to the program after a decades-long debate and several layers of litigation regarding the coal lease program. The debate over the leasing law centered largely on how best to regulate coal producers who secured lease rights and then held those rights for speculative reasons but did not mine the coal. To many this proved that there was a surplus of coal under lease and little need for the Department to put new tracts on the market.[48]

48. The Department of Interior decided to move forward with the 1982 group of leases citing among other objectives the need to improve access to the nation's coal reserves. They stated this was a national security threat brought about by world energy

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[48]United States Commission on Fair Market Value Policy for Federal Coal Leasing.*Report of the Commission: fair market value policy for federal coal leasing.* (Commission on Fair Market Value Policy for Federal Coal Leasing, 1984), p.374, (Linowes Commission). The Commission took the position that there was no need for the 1982 coal leases (see p. 133).

shortages.[49] The Department was also responding to coal industry requests to increase coal reserves to meet individual company needs.[50] The Department's internal process required that a fair market appraisal be conducted for each coal tract. The appraisal provided the Department with an estimate of the market value for the coal. What happened between the time agency officials received the fair market appraisal and published the bid solicitation became the source of significant controversy and had a lasting impact on national energy markets.

49. In essence, Department of Interior officials determined that the fair market appraisal was "too high". The prices derived in the fair market value appraisal were reduced by 50%. The agency then published these values in the bid solicitation as the minimally acceptable bid. Subsequent bids came in at, or slightly above the reduced levels. The leases were awarded based on the lower values and the coal was mined based on these terms and conditions. The United States General Accounting Office (GAO),[51] an independent investigation by Congress and a Congressional Commission[52] all concluded that the Department did not receive fair market value for the tracts.[53]

[49]Linowes Commission, p. 375.
[50]LinowesCommission , p. 96.
[51] United States General Accounting Office, *Analysis of the Powder River Basin Federal Coal Lease Sale: Economic Valuation Improvements and Legislative Changes Needed*, (GAO/RCED-83-119), May 11, 1983.
[52]Linowes Commission
[53] Three other related investigations by the Department of Interior's Office of Inspector General evaluated the behavior of agency personnel resulting in a referral to the Department of Justice. The subsequent Department of Justice investigation report did not recommend criminal indictment but did cite potential violations of government ethics rules. These reports did not opine on the question of the fair market value. The Linowes Commission provided a detailed summary of the Department of Interior's internal workings at the time.

According to the GAO, BLM had accepted $67 million for coal tracts actually worth $167 million.[54]

50. The Linowes Commission explains the precise nature of the change in the fair market appraisal made by agency staff:

> "At the March 19, 1982, meeting, concerns that the MMS pre-sale appraisals "were too high and had priced the coal leases out of the market" were discussed. The decision to implement the change to entry level bidding was "more or less announced by the three policy chiefs there…the two deputies [Russell and Pendley] and Assistant Secretary Miller," according to one participant. The Chief of the Economic Evaluation Branch, MMS, was "instructed to establish entry levels for use in the Powder River regional coal lease sale."
>
> "The basis for the entry levels was to be the 50 percent guideline previously developed by the Economic Evaluation Branch. The tracts already assigned the $25 per acre minimum because of zero or negative appraisals would have an entry level bid of that amount. The other tracts were ranked in descending order of value in cents per ton and four categories were identified. In one group, three tracts with appraisals ranging from 13.4 cents per ton to 19.5 cents per ton were assigned entry levels of 8 cents per ton. In a second group, two tracts appraised at 5.5 and 9.7 centers per ton were assigned entry levels of 5 cents per ton. In the third group, two tracts with appraisals of 6 to 2.5 cents per ton were assigned 2.5 cents per ton. The fourth group consisted of eight $25 per acre tracts. The cents-per-ton values were converted into dollars per acre and rounded."[55]

51. The Linowes Commission analyzed the received bids with the benefit of the investigative work of the other oversight entities. Its conclusion was that the published prices by the Department acted as the effective "market" price for the lease, despite the existence of the higher fair market appraisals in the their possession..

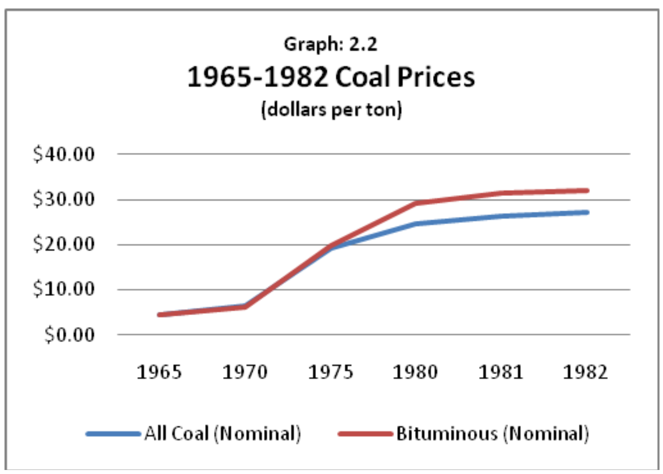
> "The consequences of this change are evident from the results of the April coal lease sale. The bids received suggest the limited extent to which bidders anticipated a fair market value standard higher than the entry level bids published in the sale notice. As table 2 shows entry level bids on one-bid tracts were at or only slightly above the entry level values. The sealed bids entered before oral bidding on the three tracts drawing two bids were also at, or slightly above, the entry level. This bidding pattern is rational for bidders who know that their sealed bids will be accepted if they meet no competition or who do not consider having a bid rejected to be a serious loss. Although it is possible that bidders did not think it costly to have a bid rejected, the Commission concluded that the closeness of the submitted bids to the entry level bids was probably a reflection of their reading that the sales procedures provided de facto acceptance of bids at the entry level. Regardless of whether the resulting bids were fair market

[54] The GAO and Linowes Commission provide the most extensive analysis of the bids and the variables that influence any estimate of lost value to the federal government at the time of the leases. GAO-RCED-83-119.
[55] Linowes, p. 388-389.

value, the Commission believes that this action resulted in the public perception that lease prices had been cut."[56]

52. At the time the Department offered many reasons for changing procedure and the presentation of bid solicitations. Contemporaneous reviews by the GAO were sharply critical and found those reasons lacked foundation.[57]

53. The GAO did not agree that the fair market appraisal dismissed by BLM was too high.[58] The price of coal had been rising for over a decade. From 1970 through 1982 the total price of coal rose from $6.34 per ton to $27.35 per ton. Bituminous coal (which at the time included PRB coal) rose from $6.30 per ton to $32.15 per ton in 1982.[59]



[56]Linowes Commission, p. 389.
[57] GAO/RCED 83-119.
[58] The Energy Information Administration 1983 Annual Energy Outlook forward looking analysis projected rising PRB coal prices and rising PRB production through 1995. Those increases were to take place during a period when the prices of other fuel sources were rising more rapidly. Energy Information Administration, *Annual Energy Outlook 1983 with Projections to 1995*, May 1984, DOE-EIA-0383 (82), p. 109.
[59] Energy Information Administration, 2010 Annual Energy Outlook, Table 7.9 Coal Prices: Selected Years, 1949-2010.

54. Ten years later, DOI raised the issue and continued to defend its decision to flood the market with low cost coal. This time it offered the jobs and low cost electricity defense, tacitly acknowledging lost revenue from below market sales

> With reference to the sentence “FCLAA requires receipt of fair market value, not maximization of Federal revenues,' we note that the Department was criticized by the Congress and others for not getting more money for coal tracts located in the Powder River Basin in Wyoming in two 1982 sales. The GAO estimated that the Department had undervalued the coal by about $100 million. An investigative staff of the U.S. Congress charged that the sale had been held in a soft coal market, thereby losing revenues. The Department's defense was that it was not seeking to maximize revenues but instead was considering consumers who required electricity and jobs which was not acceptable to the Congress.[60]

55. Even if BLM leased coal below fair market value, coal producers have an incentive to sell for the highest price and benefit through the acquisition of short term excess profits. It is tempting to think that this market self-correction will remedy any immediate damage done to the federal government. The higher prices to utilities would have resulted in higher federal royalty payments. This is not the case. In 1983, U.S. coal mines produced 782 million tons of coal, of which 151 million tons (19%) were subbituminous coal, principally from the PRB. A decade earlier subbituminous coal accounted for 34 million tons, or 5.6% of production. By 1993, subbituminous coal mine production increased to 223 million ton or 23% of nationwide production.

56. From 1970-1982 coal prices rose precipitously. After the 1982 coal tract decision prices began to drop. By 1993, prices had dropped across the board. The nominal price for subbituminous coal had dropped to $9.33 per ton, from its highwater mark of $13.03 per ton in 1983.[61]

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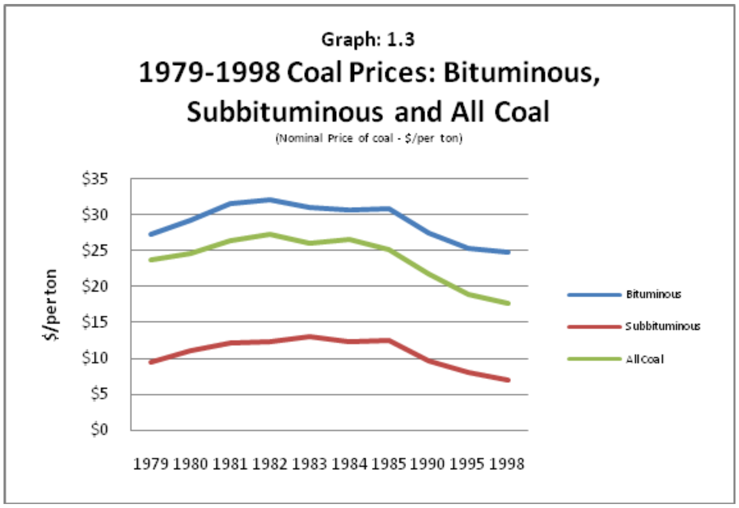
[60] United States General Accounting Office, *Mineral Resources: Federal Coal-Leasing Program Needs Strengthening*, GAO/RCED-94-10, September 1994, p. 87 (RCED/GAO 94-10).
[61] EIA-Historical, Table 3: Historical Coal Prices by Type of Mine, Selected Years, p. 15.



57. A GAO audit performed in 1994 addressed whether or not an individual lessee was inappropriately granted extraordinary benefits.[62] In the course of the audit the GAO surveyed how the Department was estimating the need for coal and the state of coal prices of generally. The GAO concluded

> We found general agreement among BLM officials that the decline in coal prices can be attributed to the increasing amounts of less-expensive coal produced from Powder River Basin mines. In economic terms, the decline in coal prices is primarily the result in a "shift", or increase in the supply of coal, rather than a change in demand. This increase in supply is a consequence of coal supplies bringing more coal to the market at each price level. This is possible because of changes in technology (such as the "long-wall miner" – a machine used in underground mining operations) and larger surface operating in the West (thus, taking advantage of economies of scale in coal mining). As a result, supply has increased, and the price of coal has dropped – even though demand may not have changed and the quantity of coal has increased.[63]

58. The lease sale of 1982 provides several critical lessons about coal lease policy. First, the United States government's possession of a large coal asset in the PRB constitutes a relative monopoly of supply. This monopoly, recognized in the policy documents of the program, means that federal actions taken with regard to the disposition

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[62] United States General Accounting Office, *Mineral Resources: Federal Coal-Leasing Program Needs Strengthening*, GAO/RCED-94-10, September 1994. The central audit finding was that the Department granted Kerr-Mckee rights to a lease extension in violation of law and regulation. The decision cost the government millions. The Department of Interior disagreed with the GAO's interpretation.

[63] GAO (94-10), p. 53. In response to the audit Interior officials wrote a 12 page line by line response. They did not object to this paragraph. Instead they offered an overall defense of low priced coal. See Appendix VII of the audit page 87.

of PRB will shape the markets into which it is discharged.[64] For example, Department of Interior 1979 Task Force on Fair Market Value states that: "The government is the price leader for western coal properties due to its vast ownership of unleased, low-cost coal. All lease prices will tend to go to the level the Department chooses." Second, in the 1982 lease sale the United States government did not receive the fair market value for 1.6 billion tons of coal leased by BLM. Three oversight entities concluded the FMV standard was violated. The Department disputes this assessment, but gave mitigating factors that it believed were exculpatory. Third, the coal leased for below market sale was released, along with coal leased prior to 1982, into the United States markets. Long-term nationwide coal prices declined between 1982 and 1998. Depressed coal prices were directly attributed by BLM to the release of low cost coal into the nation's coal supply. The market price of coal was affected by the policy choice of BLM, typical of the impact of monopoly power and price leadership. Fourth, the FMV appraisal was flawed. Each stakeholder in the process saw the flaws somewhat differently and none were satisfied. Overall history tells us the process is inherently problematic and requires constant diligence. Fifth, the bid process was tainted by scandal and ethical lapses. Sixth, the problems created by the publication of a minimum bid price and problematic bid process could have been mitigated by robust competition at the time of sale. The sale of each coal tract drew only limited interest from coal producers. This eliminated the last pretense that the combination of internal checks used by BLM, including the integrity of the fair market appraisal, internal committees, agency counsel review, senior management

[64] Department of Interior, Final Report and Recommendations for the Secretary on *Fair Market Value and Minimum Acceptable Bids for Federal Coal Leases,* December, 1978. , P-I-2.

participation, post appraisal review and actual competition would provide adequate protection that the public would receive the FMV for the coal tracts under consideration.

59. Reforms were instituted after the scandals of the 1980's. The 1982 price cut and decision effectively set the market price of coal below what the market would bear. This action, according to BLM and market data, shaped the markets and lowered the price of coal through 1998. Subsequent to that, to this day, the price of PRB coal remains undervalued. The region's rise in market share from 5% to 45% from 1970 to the present demonstrates its ability to compete against all coals and other energy alternatives on the market. Even as prices of PRB coal tend to rise and fall,[65] they remain below what could be achieved from a rigorous application of a fair market value standard. Within the Fair Market Value modeling the market price of coal is represented as the current price paid.[66] The current price paid for PRB coal was distorted in 1982, factored into the price of coal to utilities as an incentive to buy more PRB coal and then replicated in subsequent FMV appraisals as a valid price for coal. The 1982 distortion has become a permanent part of BLM's Fair Market Value calculations in each subsequent appraisal.

60. The leasing program today is not the same as it was in 1982, even though the outcomes have been the same. The markets are also different. Nevertheless, the lessons of the past are still relevant. The program has evolved from one in which industry guided

[65] The price of PRB coal went from $9.33 per ton (nominal dollars) to $9.95 per ton (nominal dollars) between 1993 and 2006. The average annual price was $7.89 per ton during the period. Coal production rose from 233 million tons per year in 1993 to 487 million per year in 2006. Low priced coal for over a decade sustained both coal producer profits and significant downstream economic benefits to utilities.

[66] Although BLM does not publish its FMV valuations the State of Montana does. The basis for the coal price on the Otter Creek lease was the current spot coal price published in SNL Financials, an industry trade publication. The coal price is then subjected to adjustments. See: Norwest Corporation, *Montana Otter Creek State Coal Valuation*, Submitted to Montana Department of Natural Resources and Conservation, January 30, 2009. See page E-1 which states the coal valuation is consistent with the BLM Handbook. And p. 3-10 that cites the SNL spot coal price.

preference in selection of mining sites to one in which there is effectively no formal oversight.

61. In the wake of the leasing program scandal in the 1980's various oversight reports and books detailed substantial program weaknesses with the leasing program. The studies revisited the various planned and actual purposes of the program: the maintenance of a supply of fuel to provide low cost electricity for the nation; energy security in the wake of foreign threats to national fuel supplies; support for regional economies; relative improvements to clean air act compliance. Oversight studies also found problems with the leasing program, structural dilemmas requiring constant attention by program administrators, coal and utility industry dynamics and the complexity of coal mining in the nation's regional reserves. Other problems relate to program administration within the federal bureaucracy, the nature of statutory program construction, interest group interplay, budget requirements, agency culture and competition for priorities.

62. What emerged from this period was a clear preference on the part of federal decision makers for a program that relied upon fair market appraisals.[67] The appraisal process would give the Department a tool to continually gather market information and maintain cost accountability for the disposition of the federal asset in the leasing process. Fair market value could be preserved, in theory, either by robust competition for the sites or by the soundness of the appraisal serving as a market proxy.

63. The new program design made tradeoffs between confidentiality for BLM and third party coal producers and the public's right to know. BLM concerns stem from

[67] BLM-Handbook, p. I-4, Prior to the 1970's the Department did not conduct such diligence on coal valuations. The scandal heightened the issue for the Department at the time.

the inherently complicated nature of the appraisal process and the wide latitude that must be granted to staff in the data collection and judgment areas. Market changes are also constant and unpredictable. Agency personnel are required to interact regularly with coal industry representatives. All of these factors, necessary for the conduct of ordinary operations threaten to introduce bias or worse into the decision making process.

64. The Linowes Commission and the GAO made recommendations on how BLM and DOI should address ongoing disclosure and oversight issues. The program's stance on balancing conflicts between the U.S. government's legitimate business interests and routine program oversight is expressed in the agency operating manual. The manual, an element of the program reforms, was written in the wake of the scandal. As mentioned above, it stressed the need for external review and public inspection.

65. Quite the opposite has occurred. Since 1982 coal production for the region has increased dramatically. Departmental budget documents show BLM's coal leasing program produced revenue in excess of $1 billion in 2010, up from $377 million in 2000. All of these factors suggest the continuation of a robust program of oversight. The significant oversight failures are:

- From 1987 through 1990 the Department of Interior, Bureau of Land Management eliminated the Powder River Basin as a certified coal zone. The zones placed systematic planning and accountability requirements on BLM and the industry. According to a 1994 GAO audit this was due to a "declining interest in leasing coal." Within four months after the decertification BLM received four applications for 800 million tons of coal. Interior Department officials, at the time, stated that the applications reflected "pent-up" demand for coal mining in the PRB.[68]

- From 1972 to 1994 the GAO conducted 25 audits of the Department of Interior's Coal Leasing program. The topics focused on critical, high-level program issues related to bidding, tract selection, fair market value, royalty payments, national energy needs, coal price trends and markets and a host of other broad program impact issues.[69] Since 1994 the GAO [70] has posted NO audits of a broad programmatic nature related to BLM's coal leasing program on its website[71].
- As part of the investigation into the fair market leasing scandal in the 1980's the DOI Office of the Inspector General conducted three published investigations related to the ethical behavior of agency staff. From 2000 to 2010 there have been no published audits or reports listed on the website of the Department of Interior's Office of the Inspector General on the Bureau of Land Management's Coal Leasing Program or the Minerals Management Resource unit management of its functions related to federal coal leases.

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[68] RCED/GAO 94-10, p. 20.
[69] See *Appendix I: Lack of Oversight: BLM Coal Leasing Program 1994 to Present* and *Appendix II: GAO Archived Coal Lease Research.* The list contains 29 documents prepared by the GAO, only 25 are reports. The remaining published documents are testimony based upon existing GAO audits or studies.
[70] Effective July 7, 2004 the United States General Accounting Office changed its legal name to the Government Accountability Office, www.gov.gao/about/namechange/.html
[71] The Government Accountability has been active however at the Department of Interior and BLM on other related areas. In 2006 it published: *Interior's Land Appraisal Services: Actions Needed to Improve Compliance with Appraisal Standards, Increase Efficiency and Broaden Oversight*, GAO-06-1050, September 2006. This audit reported on agencywide problems with appraisals and a major reform program undertaken by the agency to improve the quality of appraisals, The audit found continued need for improvement. DOI's reforms and this audit exclude the coal leasing program. A robust series of audits on the oil and gas lease program conducted by BLM has been covered by BLM. See for example, GAO, *Oil and Gas Revenues Management and Revenue Collection in Need of Comprehensive Reassessment*, GAO-09-506T, March 17, 2009. Gas and Oil lease administration have been the focus of GAO reports, not coal.

- Leading up to the institution of program reforms in 1982, and in the wake of the controversial lease effort the Department of Interior, [72] Congress,[73] a Congressional Commission (Linowes Commission), the Office of Technology Assessment,[74] the Federal Trade Commission and a host of private organizations all produced extensive, detailed studies on the fair market lease program. Since the mid 1980's no major studies have been produced on the program by these institutions or other ones of similar stature. Recent budget justifications by BLM to Congress offer misleading and incomplete information regarding coal markets and program operation.[75]

66. Given the currents of change in the coal market described herein, the FMV program design and the lack of attention to program oversight it is not surprising that the formal documents used by BLM to justify current lease decisions are so fundamentally flawed. It is also no surprise that the data is poorly prepared (no oversight is ever expected) and ignores market factors that would require it to consider higher fair market valuations. A review of recent Records of Decision (ROD) granting leases provides an adequate illustration.[76]

67. BLM's rationale for granting its most recent leases understates the demand pressures on the PRB market. This minimizing repeats BLM's historic practice of low

[72] Bureau of Land Management, Federal Coal Management Program, *Final Report and Recommendations for the Secretary on Fair Market Value and Minimum Acceptable Bids for Federal Coal Leases,* December 1979.
[73] *A report to the Committee on Appropriations, U.S. House of Representatives, on the Coal Leasing Program of the U.S. Department of the Interior*, prepared by the Surveys and Investigations Staff, House Appropriations Committee, (Washington, D.C., 1989).
[74] Office of Technology Assessment, *Management of Fuel and Non-Fuel Minerals on Federal Lands: Current Studies and Issues*, Washington D.C., 1979.
[75] See Appendix I for discussion.
[76] See, for example, Bureau of Land Management, *Record of Decision for the Caballo West Lease by Applicant,* WYW172657, August 8, 2010.

valuation in its fair market methodology. The ROD's ignore powerful market drivers. Despite clear, publicly available market information to the contrary, BLM decisions are made with consistent assumptions of low PRB market price projections, low revenue estimates for coal tracts and continued low valuations of fair market value. For example, BLM does not identify, actively consider or acknowledge the loss of Central Appalachian coal or the rising levels of exports.

68. The ROD's failure to take into account the pressure to export PRB coal constitutes a significant omission. It ignores the stated position of the region's coal producers. The ROD's emphasis is exclusively on the use of coal in "national markets" for domestic electricity. As stated above, however, the goal of the producers in the region is to market increasing amounts of coal at all quality levels into international markets. There will be generalized impacts on PRB mines and specific mine and coal tract changes related to ownership, as well as related changes in capital structure of new owners, financial interests, location, quality, size and price. For example, Cloud Peak Energy holds the lease on the Antelope mine. Cloud Peak exports exclusively from its higher Btu Montana mines.[77] However, both its own planning assumptions and the projections of other PRB producers have demonstrated the market potential for export from the PRB at every energy content level.[78]

69. As mentioned above, Peabody, Arch and Cloud Peak's financial conditions and rising share values are tied to the successful implementation of their export plans. This is an enterprise wide proposition for these companies. Enterprise-wide revenue,

[77] Cloud Peak 2Q 2011.

[78] Slone-Arch, Slide 12 – Arch's concentration on Indonesia's participation in international markets highlights the export potential for lower btu coal. Indonesia currently provides much of the global supply but is engaged in a domestic debate over utilization of its coal supply for domestic uses.

expenses, profit, share value, dividend calculations, reserve strategies and valuations are not wholly dependent on the operational output of one mine as is the assumption of BLM's fair market valuation model.

70. The avoidance of the export issue stands in stark contrast to the ROD's assertion that mining is being undertaken to help the United States maintain its energy independence. A 2008 major study by the United States Geological Survey has raised a red-flag warning about the diminished size of the PRB's economically recoverable coal reserve.[79] The report has direct material bearing on lease activities and is never mentioned by BLM. The PRB is the only publicly-owned, low cost coal reserve of significance in the United States. Intensified mining will drive the costs of coal up for domestic purposes. How does it assist energy independence to sell the nation's only low cost coal reserves to other countries at a time when the nation's only monitor of this natural resource has issued a warning about economically driven future supply constraints?

71. Furthermore, BLM's statement that there would be almost no effect on the supply of coal to the nation's providers of electric generation if Caballo is not approved is extraordinarily narrow. The agency acknowledges it has multiple pending applications for more than billion tons of coal. If, the EIA's projection occurs that coal fired generation will constitute between 48 and 58% of future market share, then, considerable coal resources will be required to meet the need.

72. A simple review of the long term outlook of the EIA, the BLM's own source, shows the extraordinary nature of BLM's position. According to the 2010 AEO outlook

[79]United States Geological Society, *Assessment of Coal Geology, Resources and Reserves in the Gillette Coalfield, Powder River Basin, Wyoming,* Open-File Report: 2008-1202. http://pubs.usgs,gov/of/2008/1202. (USGS-Gillette)

the nation will use 1.284 billion tons of coal in 2035. Of this 696 million tons will come from Wyoming and Montana mines. Also in 2035, domestic coal producers expect to export upwards of 300 million tons. Stating that an addition to the nation's coal supply of 18-22 million tons per year for the next 20 years will have no effect on supply, and to presume the pricing impact would be high but affordable to utilities (with no analysis or reference to alternative markets) is illogical and incorrect.

73. This extraordinary misread of PRB coal markets understates the demand and ultimately price pressures on the region. The essence of the FMV calculation is realized when the BLM method, skillfully applied, captures the value created between the cost of production and the price of coal on the market. It is in that nexus where the FMV lies and where the bonus payment's appropriate level is established. Fundamentally erroneous conceptions of the market, particularly those that tend to understate the price potential of mined coal only serve to reinforce the trend of BLM to rely upon unreasonable and unfair methods to set the market value of coal.

74. Presently, there are other indicators that BLM's leasing program systematically leases coal at prices below fair market value. The broad proliferation of PRB sales from 5% of the market in the 1970's to 45% of the market today makes it clear that the price advantage given to coal producers provided market leverage for PRB coal to be sold cheaply to utilities. In 1982, the initial below market lease prices provided both a quantitative bias in the FMV toward low bonus and lease prices and served as the "market price of coal" for the Department going forward. The steady supply and low price availability for decades allowed for deep market penetration and long-term investment by both utilities and coal companies. The BLM's statement to the GAO

demonstrate that the goal of the fair market valuation and sale were secondary to the broader investment objectives of low cost electricity and the benefits derived from it.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge, information and belief.

Dated: 12/15/11

Tom Sanzillo

Tom Sanzillo

APPENDIX I:

LACK OF OVERSIGHT: BLM COAL LEASING PROGRAM 1994 to PRESENT

A. The decertification of the coal zone in the Powder River Basin.

In 1979, one component of the new leasing regulations was a planning process that would address the issue of need. The planning process focused, in part, on the establishment of federal regions where coal producing activities were taking place. Within the regions, a series of planning and coordination activities would govern tract selection and provide Departmental staff with regularly updated information on a broad set of questions needed to manage the nation's federally owned coal assets. The purpose of the coal region was summarized in a General Accounting Office audit.

> After completing a comprehensive land use plan for a federal coal region, BLM was required to solicit industry's expressions of interest in leasing specific tracts and review these tracts for compatibility with the comprehensive land use plan. On the basis of environmental, social and economic impacts; advice from governors and affected states; interest from industry; projections of future demand for federal coal, anticipated coal production; and consideration of national energy needs, the regional coal team recommended to the Secretary the amount of coal that should be leased in the federal coal region. After the Secretary established a regional leasing level the regional coal team was to rank and select a group of tracts that approximated this level. This selection was to be based on the economics, environmental impacts, and socioeconomic impacts of coal. BLM was then to prepare a region wide environmental impact statement (EIS) on the recommended combination of tracts as well as on other possible combinations. After consulting with surface-managing agencies, governor and affected Indian tribes, the Secretary could approve the tracts, and BLM could offer them through a competitive sale.[1]

Using planning to set coal levels and assist the Department with its preparation process was codified in regulation near the end of the Carter administration. It was quickly discarded at the beginning of the Reagan administration.[2] The decision to adopt a market based approach when setting coal levels allowed coal producers to decide the level of reserves necessary to create a proper price for coal. At the time, critics were concerned about the potential for too much coal depressing the price the government would receive. They were also concerned with an oversupply and the risk associated with a new round of speculation.

The GAO's last substantive audit on the coal leasing program commented on the process by which the agency delayed implementing the regulations and ultimately decertified the regions.

> From 1987 through 1990, regional coal teams recommended that Interior decertify or disband all six federal coal regions. The Powder River, Uinta- Southwestern Utah and Southern Appalachian

[1] RCED/GAO 94-10, p. 18
[2] See discussion on Nelson (op cit) pps. 235-236.

> regional coal teams noted a declining interest in leasing coal and poor coal conditions as reasons for decertifying"[3]

During the period 1985-1990 coal production in the United States increased from 878 million tons to 1.029 billion. The state with the largest increase in coal production during this period was Wyoming.[4] The GAO noted the coal industry's response to the Department of Interior's (DOI) decertification announcement. "Within 4 months of the Powder River Regions decertification, industry filed four applications for about 800 million tons of recoverable coal to maintain existing mines in the region."[5] The GAO noted that DOI officials cited a "pent-up" demand for coal stemming from the fact that they had not leased a mine since 1984.

From 1990 to 2011, coal leasing in the Powder River Basin (PRB) has proceeded on a relatively steady pace. Revenues from the coal lease program to the federal budget have risen dramatically. In 2010, the region produced 487 million tons of coal.

> Since decertification of the Powder River Federal Coal Region in 1990, 20 Federal coal leases in Campbell and Converse counties, Wyoming, have been issued under the LBA process with competitive sealed-bid sales. These leases include approximately 19,172 acres and 5.793 billion tons of mineable coal. Eighteen of these leases were issued to the following producing mines for the purpose of extending operations at those mines Jacobs (2), Black Thunder (3), North Antelope Rochelle (4), Eagle Butte (2), Antelope (3), Buckskin (1), Cordero/Rojo (2),and the former North Rochelle (10).
>
> The remaining two leases, the West Rocky Butte and the West Roundup, were issued to companies intending to open new mines. The West Rocky Butte lease was issued to Northwestern Resources Company in 1992. That company planned to start a new mine to recover the coal included in the Rocky Butte and West Rocky Butte leases but the new mine was never developed. The Rocky Butte and West Rocky Butte leases are now held by Caballo Coal Company, a subsidiary of PEC, and are included in the Caballo Mine. The West Roundup lease was issued to West Roundup Resources, Inc, a subsidiary of PEC, and has been incorporated into the recently permitted School Creek Mine.
>
> There are 12 pending maintenance lease s applications in the Wyoming portion of the PRB, including the West Coal Creek LBA tract. As applied for, the pending coal lease applications include approximately 35,605 acres and 4.474 billion tons of Federal coal. In addition to the West Coal Creek LBA, the pending coal lease applications and applicants are:
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> Caballo West (Caballo Mine)
> North Hilight Field (Black Thunder Mine)
> South Hilight Field (Black Thunder Mine)
> West Hilight Field
> Belle Ayr North (Belle Ayr Mine)
> Hay Creek II (Buckskin Mine)
> West Jacobs Ranch, (Jacobs Ranch mine)
> Maysdorf II (Cordero Rojo Mine)
> South Porcupine (North Antelope Rochelle Mine)

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[3] RCED/GAO 94-10, p.19
[4] Energy Information Administration, *1994 Coal Industry Annual Report*, Table 1 Coal Production, 1985, 1990-1994.
[5] RCED/GAO 94-10, p. 20.

North Porcupine (North Antelope Rochelle Mine)[6]

Conclusion

The statement by Department of Interior staff that the rationale for decertification reflected a lack of interest in coal leasing is belied by the GAO's finding that applications were received for 800 million tons of coal, from four producers, within four months of the decertification. Coal producers, and apparently BLM regional staff, did not support the planning and accountability process required by the zones. Coal demand and production from the PRB, has soared with a steady but modest stream of additions to BLM's coal lease portfolio.

B. The United States Government Accountability Office has not performed a substantive audit of the program since 1994.

According to the Government Accountability Office (f/k/a the General Accounting Office) its mission and purpose is "to support the Congress in meeting its constitutional responsibilities and to help improve the performance and ensure the accountability of the federal government for the benefit of the American people."

> We provide Congress with timely information that is objective, fact-based, nonpartisan, nonideological, fair, and balanced. The work of the agency done at the request of congressional committees or subcommittees or is mandated by public laws or committee reports. The GAO also undertakes research under the authority of the Comptroller General. The Office provides a complement to congressional oversight by:
>
> - auditing agency operations to determine whether federal funds are being spent efficiently and effectively;
> - investigating allegations of illegal and improper activities;
> - reporting on how well government programs and policies are meeting their objectives;
> - performing policy analyses and outlining options for congressional consideration; and
> - issuing legal decisions and opinions, such as bid protest rulings and reports on agency rules.[7]

From 1972 to 1994, the General Accounting Office issued 29 reports, audits and testimonies on the Department of Interior coal leasing program.[8] Those reports covered fair market value appraisals, the appropriateness of bidding processes, need assessment for leasing, implementation of the logical mining unit provision of the Mining Law, royalty assessment policy and collection, coal pricing, decertification of regions and several other issues of interest to Congress and the general public. Since 1994, there have been no reports produced by the GAO on critical policy topics related to the coal leasing program. As noted above, this is despite the large increase in revenues and coal

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[6] US Department of Interior Bureau of Lnd Management Record of Decision, West Coal Creek Lease Application, WY 172585, Campbell, Wyoming, June 11, 2011, p. 3-4

[7] http://www.gao.gov/about/index.html

[8] For a listing of those reports found on the General Accounting Office website see: Appendix: II GAO Archived Coal Lease Research.

production. Powder River Basin coal supplies electric power plants in 38 states,[9] and remains a source of relatively low cost power for the nation's homes and businesses. Furthermore, the 1994 report concerns a specific coal lease and administrative issues. It contains only a few references to the policy issues that prompted the scandal. Since GAO's 1983 audit of eleven coal leases, there has been no comprehensive review of the fair market coal lease process at BLM.

The Government Accountability Office offers a five year, forward looking strategic plan. The plan does not suggest that the coal leasing program will be the subject of a future audit. The agency is concerned with commodity price volatility in energy markets and general problems of economic efficiency and functioning. It also remains concerned with more traditional auditing areas of waste fraud and abuse.[10]

C. The Department of Interior Office of the Inspector General has not published a report for the public performed an audit or investigative report on the BLM Coal Leasing Program or on the Mineral Management Resource Bureau's coal leasing related functions since 2000.

During the coal leasing scandals in the 1980's, the office of Inspector General was called upon to investigate the Interior's decision to reduce the coal price values, established by the agency appraisal, by 50% for the bid price. The Inspector General[11] uncovered that DOI personnel: 1) leaked the fair market appraisal data to industry officials prior to reducing the appraised values in the bid solicitation; 2) accepted gifts from those same industry officials; 3) were in a position to influence the outcome of the fair market appraisal decision and shape the final bid selection; 4) used their authority to reduce the minimum acceptable bid in the solicitation. In so doing, the General Accounting Office, House Appropriations Committee investigation and Linowes Committee all concluded that the United States government did not receive fair market value. Better stated, they could have received $60 to $100 million more for the lease value. The Inspector General's findings were forwarded to the Justice Department. The Justice Department did not prosecute but remanded the matter back to the Department of Interior for potential ethics actions.

The website of the Department of Interior Office of Inspector General states that it is "responsible for independently and objectively identifying risks and vulnerabilities that directly impact DOI's ability to accomplish its mission. We are required to keep the Secretary and Congress informed of problems and deficiencies relating to the

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[9] Timothy Considine, *Powder River Basin Coal: Powering America,* Final Report to the Wyoming Mining Association, December 2009, p. 19. A more recent study by the United Stated Energy Information Administration, *Rail Coal Transportation Rates to Electric Power Sector,* Estimated U.S. Rail Transportation Rates for Coal, Coal Basin to State (2001-2008), June 22, 2011, puts the number at 31 states.

[10] General Accounting Office, *GAO*: *Serving the Congress and the Nation: 2010-2015,* August 16, 2010, www.gao.gov.htext.910559.html

[11] The Inspector General's investigations of the leaks were the subject of a highly critical audit by the GAO. See United States General Accounting Office, *Deficiencies in the Department of Interior OIG Investigation of the Powder River Basin Coal Lease Sale,* GAO/RCED, 84-167, June 11, 1987.

administration of DOI programs and operations."[12] Since 2000, total annual revenues from the coal leasing program (bonuses, rents and royalties) have increased from $377 million to in excess of $1 billion.[13] The only other program in the agency that contributes more is the leasing of oil and gas reserves.

The Inspector General's website contains the statement: "This database contains publicly released audit reports and reports of investigation from 1995 to the present."[14] A check of each year for the Bureau of Land Management, Minerals Management Services and All Reports reveals that no reports of significance have been performed on the coal leasing program. Nor have any been performed on other units in the agency and their functions. A number of important audits have been performed on the agency's management of abandoned mines.[15] Several audits related to land boundaries,[16] royalties and appraisals address issues faced by bureaus other than coal managers. The Inspector's strategic plan for 2011-2016 makes no specific reference to coal leasing but does cite an interest in energy revenues.[17]

D. There have been no publicly available Congressional oversight studies, independent Commission work or independent work by an institution of stature on the coal leasing program performed since the middle 1980's.

Since the 1980's, there have been no policy studies issued by an arm of Congress regarding the coal lease program's fair market value assessments. Reports to Congress from BLM seem to have been limited to annual budget justifications.

As part of its budget justification, the Department of Interior Bureau of Land Management annually reports to Congress certain performance indicators related to the coal leasing program. In its 2011 Budget Justification, BLM offered the following observation regarding agency activity:

> Major leasing efforts occurred in 2004 and 2005 but relinquishments offset the gains. No significant change is projected for the coal leasing program through 2013. A process is being developed in Wyoming to approve multiple leases at the same time but this effort is being offset by lower market demands and mergers. The new process will be implemented in 2012.[18]

The same budget presentation has the amount of federal acres under lease, it offers a table of the "Number of offshore federal acres under lease for coal development." For 2009, the chart lists 474,334 actual acres under lease. For 2010 and 2011 the planned amount is 470,700. A targeted amount of 470,100 acres is projected for Fiscal year 2012.

On March 22, 2011, the Department of Interior released a statement announcing that sales would take place in coming months on four new coal tracts in the Powder River

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[12] United States Department of the Interior, Office of Inspector General, *Semi Annual Report to Congress,* April 2011, p.v.
[13] United States Department, *Receipts to Treasury,* May 20, 2009.
[14] www.doioig.gov/report/database
[15] Office of the Inspector General, *Abandoned Mines in the Department of Interior,* C-IN-MOA-0004-2007, July 1, 2008.
[16] Office of Inspector General, *Management of Land Boundaries,* C-IN-MOA-0001-2009
[17] Office of Inspector General, *Strategic Plan: 2011-2016,* May, 2011, p. 3.
[18] Bureau of Land Management, *Budget Justification and Performance Information Fiscal Year 2011,* Coal Management Performance Overview, Section IV, p. 135-137. www.doi.gov/budget/2011/data/greenbook/FY2011_BLM_Greenbook.pdf

Basin. The tracts would encompass 7,441 acres of federal land and add 758 million new tons of coal. The statement also announced that four Records of Decision on pending lease applications would be forthcoming for an additional 13,966 acres of federal land. The total coal reserve capacity is listed at 2.3 billion tons.[19]

The Department of Interior 2012 Budget Justification makes no mention of this 21,000 additional acres or how it would be offset by relinquishments. The chart on federal acres under lease has been eliminated from the 2012 budget presentation.[20] Similarly, there is no discussion of how, in a weak market, BLM decided to add 2.3 billion tons of coal, a five year supply, to coal company's reserves. In the 2012 budget justification there is no mention of market conditions.

Conclusion

The period of program formulation from 1971 through the tumultuous first round of leases in the middle 1980's, was characterized by animated oversight. The program and the public benefited by the discourse. Since then the lease program has grown substantially, revenues have climbed, actual coal production has soared and program oversight has disappeared. No one is watching this public asset. The undermining and ultimate decertification of coal zones harmed accountability. The last GAO audit of caliber and quality was issued in 1983. No evidence has been made public that the reforms were implemented or that the changes resulted in improvements to the fair market coal lease process. The very minimal independent oversight taking place, a 1994 GAO audit, and the very limited insight from the recent self-reported BLM budget documents, suggests problems. The lack of any Department of Interior Inspector General activity is reminiscent of the long ago GAO audit that found fault with their handling of the investigation into ethical lapses of agency staff during the fair market value scandal. BLM's violation of its own public information protocol is just a continuation of an agency where no one watches.

This is not surprising.[21] The program's foundation documents demonstrated that there were inherent risks in the private sector model adopted that allowed coal producers to identify tracts. Early on, the fair market value appraisals were identified as a less than adequate proxy for competition. They were also identified as a flawed mechanism for securing an appropriate return to the federal fisc. Competition on leases has been limited. These program challenges coincide with weaknesses in the areas of program management that are related to ethics, statutory interpretation of Congressional lease restrictions and instances where the agency has ignored regulatory direction.

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[19] Department of Interior, *Salazar Announces Coal Lease Sales In Wyoming*, March 22, 2011.

[20] Bureau of Land Management, *Budget Justification and Performance Information Fiscal Year 2012,* Coal Management Performance Overview, Section IV, p. 127-129. www.doi.gov/budget/2012/data/greenbook/FY2012_BLM_Greenbook.pdf

[21] The Department of Interior took strong exception to the findings of the GAO audit on the eleven coal lease sales. See: GAO, *Evaluation of Department of Interior Comments on GAO's Report on the Powder River Basin Coal Sale*, B-208410, January 27, 1084.

Appendix II: GAO Archived Coal Lease research

	Date	Title	Summary/Conclusion
1.	3/39/72	Improvements Needed in Administration of Federal Coal-Leasing Program	Recommended stronger enforcement of environmental and reclamation requirements, flexibility in ability to adjust royalty lease terms more often, disallowing deferment of coal development on granted leases.
2.	4/28/1975	Further Action Needed on Recommendations for Improving the Administration of Federal Coal-Leasing Program	Reiterated recommendations from 1972 report on the improvements needed in Federal coal-leasing program.
3.	10/15/75	Federal Coal Leasing Program Administered by the Department of Interior	Data and analysis on coal reserves, regional production and largest mining companies.
4.	3/26/1976	Issues Related to the Development of Federal Coal Resources	DOI has decided to base its leasing policy on the number and value of bids received instead of on advance planning, timing, or estimates of the quantity of coal to be produced. DOI's current leasing program is superior to its previous system, but mapping, drilling, and land management planning weaknesses can jeopardize the success of the entire operation.
5.	4/1/1976	Role of Federal Coal Resources in Meeting National Energy Goals Needs To Be Determined and the Leasing Process Improved	"DOI has decided to lift the moratorium without having reasonable goals of how much coal to lease or when to lease.Recommended stronger enforcement of environmental and reclamation requirements, flexibility in ability to adjust royalty lease terms more often, disallowing deferment of coal development on granted leases." "In the past, DOI gave little attention to adequately valuing coal lands and leased coal."
6.	7/20/76	Department of Interior's Approval Process for Coal Mining Plan	
7.	10/25/1977	United States Coal Development and the Federal Coal Leasing Amendments Act of 1975 - Statement of Monte Canfield, Jr. Director, Energy and Minerals Division Before the Subcommittee on Energy Production and Supply	The success of a Federal leasing program revolves around three key points --resource and reserve data, maximizing economic recovery, and coordinating the planning for future leasing and production between the Department of Energy (DOE) and Interior.
8.	12/30/77	Status of Competition In the Coal Industry	Report explored the companies in the industry.
9.	6/25/79	Issues Facing the Future of Federal Coal Leasing	GAO report examined questions on new leasing program: how to balance fair market leasing goals with environmental, socioeconomic and economic goals in a less regulated environment.
10.	6/25/1979	Statement of John Sprague, Associate Director, Energy and Minerals Division, before the Subcommittee on Mines and Mining	Testimony. Statement expresses concern regarding Interior's decision to restart competitive leasing before performing analysis of current leases, suggests analyzing ability to meet coal production goals for 1985-1990.
11.	9/20/1979	Statement of John Sprague, Associate Director, Energy and Minerals Division, before the Subcommittee on Mines and Mining	Testimony. Follow up to earlier testimony of 6/25/1979, concerned Interior not taking into account uncertainties when calculating amount of coal production goals.
12.	8/22/1980	A Shortfall in Leasing Coal From Federal Lands: What Effect on National Energy Goals?	Serious problems involve not leasing enough coal, not selecting the best coal areas for lease, and not having needed coal data are indicated in the Department of the Interior's lease sale in the Green River-Hams Fork region of Colorado and Wyoming.
13.	12/12/1980	Mapping Problems May Undermine Plans for New Federal Coal Leasing	GAO reviewed problems associated with the Department of the Interior's coal mapping program as it would effect the future leasing of coal from Federal lands, found thatmaps that are often inaccurate, unreliable, and inappropriate either to define broad planning boundaries or to support the kinds of economic, energy, and environmental trade-off decisions
14.	8/6/1981	How Interior Should Handle Congressionally Authorized Federal Coal Lease Exchanges	GAO called into question Interior's lease exchange for Utah company, didn't meet Congressional requirements for non-competitive lease, didn't prepare proper equal value determination.
15.	8/20/81	Simplifying the Federal Coal Management Program	GAO reviewed Interior's regulation governing its coal lease program and commented on ways to streamline provisions related to maximum economic recovery, diligent development, logical mining units and environmental review requests.

16.	4/28/1982	Cooperative Leasing Offers Increased Competition, Revenues, and Production From Federal Coal Leases in Western Checkerboard Lands	GAO evaluated the Department of the Interior's ongoing experiment with cooperative leasing agreements. Before meaningful comparisons can be made against other leasing alternatives, more experience with the concept is needed.
17.	8/10/1982	Need for Guidance and Controls on Royalty Rate Reductions for Federal Coal Leases	GAO discussed problems encountered by the Department of the Interior in its procedures for granting or denying requests for royalty rate reductions on federal coal leases, found Interior did not sufficiently use its existing accounting and auditing expertise to review reduction applications.
18.	3/7/1983	Coal Exchange Management Continues To Need Attention	GAO examined several aspects of the proposed exchange of coal land ownership in Montana between the Bureau of Land Management (BLM) and a mineral company.
19.	5/11/83	Analysis of the Powder River Basin Federal Coal Lease Sale: Economic Valuation and Legislative Changes Needed	Review of 1982 sale of 11 coal tracts. GAO review found BLM leased tracts for $100 million less than fair market value.
20.	5/23/1983	Analysis of the Powder River Basin Federal Coal Lease Sale	Testimony. Specifically discusses competitive leases for land adjacent to mining operations already in place, adoption of entry level bidding (lower minimum acceptable bids) that lowered final bid value. GAO evaluation showed that most of the Powder River coal leases sold for less than fair market value.
21.	9/6/1983	Fair Market Value Policy of Federal Coal Leasing	Testimony:.Further discussion regarding Powder River/fair market value, discussed recommended valuation improvements. Recommended quantitative tests for FMV regardless of bidding and greater reliance on arm's length and prior sales.
22.	1/27/1984	Evaluation of Department of the Interior Comments on GAO's Report on the Powder River Basin Coal Sale	GAO presented its evaluation of the Department of the Interior's comments on a GAO report which analyzed the Powder River Basin federal coal lease sale. GAO emphasized that there is a need to develop the best possible procedures to ensure receipt of fair market value without improper influence by Interior.
23.	6/11/1984	Deficiencies in the Department of the Interior OIG Investigation of the Powder River Basin Coal Lease Sale	GAO reviewed the conduct of a Department of the Interior, Office of the Inspector General (OIG) investigation into the Powder River Basin coal lease sale. GAO found that the three reports were incomplete and unreliable.
24.	8/2/1984	Legislative Changes Are Needed To Authorize Emergency Federal Coal Leasing	GAO recommended changes to Interior's emergency lease procedures, FMV determination flawed because did not assume higher value to emergency applicant.
25.	2/17/1987	Mineral Resources: Interior Has Improved Its Administration of Coal Exchanges	GAO evaluated the Department of the Interior's procedures for administering the trade or exchange of federal coal lands, GAO recommended administering lease exchanges in a way that ensured competition would still exist.
26.	8/25/1987	Mineral Revenues: Coal Lease Readjustment Problems Remedied but Not All Revenue Is Collected	GAO examined BLM's actions regarding readjusting coal leases and collecting royalties, found BLM did not readjust on time, did not collect $187 million, MMS did not collect royalties because of inadequate financial management.
27.	9/30/87	Mineral Resources: Interior's Actions on Three Coal Leases	GAO reviewed BLM's proposal to suspend a portion of a firms coal leases for non-performance on diligence standards.
28.	8/4/1992	Mineral Resources: Proposed Revision to Coal Regulations	GAO report critical of BLM proposed rule to allow leaseholders to only produce .3 percent of recoverable coal reserves and still maintain lease. BLM did not explain reasons, did not present evidence this was necessary, and would allow leases to be held without production.
29.	9/16/1994	Mineral Resources: Federal Coal-Leasing Program Needs Strengthening	Congress passed legislation to discourage the speculative holding of federal coal leases and to encourage the development of leased coal. Yet GAO found that the Bureau of Land Management (BLM) has taken actions that do not further these goals.