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HOW INTERIOR SHOULD HANDLE CONGRESSIONALLY AUTHORIZED FEDERAL C--ETC(U)
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BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

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How Interior Should Handle Congressionally Authorized Federal Coal Lease Exchanges

Lease exchanges increasingly have been considered by both the Congress and the Department of the Interior as a way of redirecting coal or other resource development to more desirable areas on public lands.

This report, a followup of an earlier GAO report to Interior, illustrates how Interior handled its evaluation of a proposed exchange of coal lands, specifically authorized by the Congress, involving the Utah Power and Light Company. The present administration recently rejected the exchange; however, Interior's previous 2-year effort in evaluating the proposal provides many important lessons and identifies some key issues that must be resolved in handling any future exchanges, including the need to

- first validate the basis and appropriateness for any exchange,
- ensure the availability of sufficient data to determine "equal value,"
- consider potential competitive leasing interest in the exchange lands, and
- develop better procedures generally to manage the exchange.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

This report examines the experience of the Department of the Interior in handling a proposed exchange of Federal coal lands involving the Utah Power and Light Company--an exchange authorized by the Congress in October 1978. It provides useful insights into the complexities associated with making such exchanges and offers lessons on how to avoid problems in future exchanges. The report should be of particular help to the Congress in considering future exchange actions, including the granting of general exchange authority to the Department of the Interior.

Copies of this report are being sent to the Secretary of the Interior; the Director, Office of Management and Budget; and the House and Senate committees having oversight responsibilities for the matters discussed in the report.

Milton J. Jordan
Acting Comptroller General
of the United States

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D I G E S T

The Congress has authorized several Federal coal lease exchanges in the past 2-1/2 years--as a way of shifting coal development to more desirable areas of public lands. More can be expected in the future. One of the first was made in 1978, involving the Utah Power and Light Company.

Prior to authorizing this exchange, the Congress considered granting Interior general authority to make lease exchanges. However, the House Committee on Interior and Insular Affairs felt that granting such authority would require more study and thus the Congress limited the authorization to specific proposed exchanges.

During an earlier review of Interior's coal leasing program, GAO determined that it needed to look more closely at the proposed Utah Power and Light Company exchange, and therefore initiated a specific study of that case.

GAO's assessment indicated that the exchange should not take place and that certain key issues must be resolved in handling future exchanges. In an interim letter to the Secretary of the Interior on April 2, 1981, GAO cautioned against making the exchange. On May 6, GAO transmitted a draft of this report to Interior which stated that

- the proposed Utah Power and Light Company coal lease exchange should not be made and
- significant improvements were needed in Interior's handling of any future exchange proposals.

While the draft report was at Interior for comment, the Secretary announced that he would not consummate the proposed lease exchange. Commenting on the draft report, Interior said that management techniques and exchange procedures for valuing lands for exchange purposes would be

examined with the view to improving the situation. GAO commends these steps and believes the lessons learned, as discussed in this report, will aid the Secretary in improving the Department's coal lease exchange procedures.

PROPOSED UTAH POWER AND
LIGHT COMPANY EXCHANGE

GAO found an unanswered question as to whether Utah Power and Light Company had a valid right to be issued leases, thus whether an exchange was even appropriate. The prior administration entered into an exchange agreement with the company and began its evaluation on the basis that this question did not need to be addressed because the Congress authorized the exchange. However, the Congress clearly expressed its intent that before granting a noncompetitive lease, the Secretary would first satisfy himself that requirements of the Mineral Leasing Act of 1920 were met. In fact, this did not happen. Undetermined, for example, was whether the company had demonstrated the discovery of coal in commercial quantities--a prerequisite for issuance of leases. (See p. 8.)

Secondly, there was a lack of data to make a realistic estimate of the coal reserves on the preference right lands, thus making it impossible to make a valid "equal value" determination, as required by legislation authorizing the exchange. Reserve estimates made by the U.S. Geological Survey and Utah Power and Light Company differed by as much as 300 million tons. This data deficiency plus the absence of a valid basis for making transportation and marketing assumptions complicated any economic evaluation and failed to assure reasonable protection of the national interest. (See p. 10.)

Finally, consummation of the proposed exchange would have resulted in leasing noncompetitively a prospectively highly competitive tract--North Horn Mountain. This tract is of known competitive interest to a number of companies and, in fact, comprises one of the larger areas of unmined coal on the Wasatch Plateau and would be the largest tract in Utah to be

leased in a competitive sale since the leasing moratorium was lifted. Offering the tract in a competitive sale would provide Utah Power and Light Company an opportunity to obtain it, while at the same time not denying other interested parties the same opportunity. In this way, market forces would be allowed to operate more freely. (See p. 14.)

During the time it was reviewing GAO's draft report, Interior (1) decided to reject the proposed exchange, and so notified Utah Power and Light Company on June 12, 1981, (2) said the company's right to leases would be determined by December 31, 1981; and (3) indicated that the three exchange tracts--including North Horn Mountain--would be offered for competitive lease.

BETTER MANAGEMENT NEEDED FOR
AN EFFECTIVE EXCHANGE PROGRAM

While the present Department has taken appropriate actions called for by GAO's draft report, its earlier handling of the proposed exchange pointed up a number of serious management weaknesses that need attention before it takes on any future exchange proposals. Weaknesses noted include the following:

- The Department tended to overlook technical problems and disregard normal operating procedures on the premise that the Congress authorized the exchange and, therefore, it had to be consummated. (See p. 17.)
- Interior officials did not involve Geological Survey technical people in planning the technical requirements for making an "equal value" determination and, as a result, did not recognize the significance of data limitations on the approach taken. Also, responsible management people were consistently bypassed or omitted from important decisions. (See p. 19.)
- Because coal data were inadequate and transportation and marketing assumptions were of questionable validity, the method used for determining "equal value"--the discounted cash flow method--normally a sound analytical technique, was inappropriate in this case. (See p. 20.)

- The Survey's present coal reserve evaluation standards are not adequate for evaluating complex coal deposits such as those existing on the subject lands. (See p. 23.)
- The Survey unnecessarily spent \$800,000 and may spend about \$640,000 more this year for drilling the exchange lands--which could, and should in this situation, have been done by Utah Power and Light Company. (See p. 24.)

RECOMMENDATIONS

In order to correct weaknesses in dealing with any future exchange proposals, the Secretary of the Interior should (1) clarify procedures for using the expertise of in-house technical people in preparing specifications for technical evaluations, (2) clearly delineate and then follow established lines of responsibility for implementing exchange actions, and (3) ensure that sound managerial and technical principles are adhered to in dealing with proposed exchanges. To help make this happen, the Secretary should direct the Geological Survey which has technical responsibility for evaluating proposed exchanges, to:

- Set standards for the minimum level of data that is needed to evaluate a proposed exchange and not allow the exchange where that level of data is not available.
- Establish definitive criteria for determining when the discounted cash flow economic evaluation method is appropriate for use in exchange evaluations.
- Revise Survey's Bulletin 1450-B or establish separate criteria to clarify guidance on how reserve estimates are to be made for lease sale purposes, particularly in instances where coal deposits reside in complex geologic formations.
- Develop explicit procedures under which land exchange applicants could, and should, drill possible exchange tracts--thereby saving Federal expenditures or freeing the Survey's limited resources to satisfy other higher priority drilling requirements.

AGENCY COMMENTS

Interior's June 12, 1981, response to GAO's draft report indicated basic agreement with the findings, conclusions, and recommendations and, as discussed above, announced a number of specific actions--including rejection of the proposed exchange and the planned inclusion of the three exchange tracts in future competitive lease sales.

Concerning GAO's recommendations to improve management of any future exchanges, Interior said it is currently examining management techniques and exchange procedures to reduce administrative costs by relying more heavily on market transactions, using bidding rights whenever possible, and continually reviewing and updating its discounted cash flow methodology to keep current within the state-of-the art. In addition, it said Survey's Bulletin 1450-B is being revised and that until that is accomplished, separate guidelines are being developed to be used in calculating demonstrated reserves for purposes of determining the right to noncompetitive leases.

Other Interior comments and GAO's evaluation are discussed, beginning on page 30.

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ABBREVIATIONS

BLM	Bureau of Land Management
Btu	British thermal unit
DCF	Discounted cash flow
GAO	General Accounting Office
PRLA	Preference Right Lease Application
USGS	United States Geological Survey

GLOSSARY

British thermal unit (Btu)	The standard unit for measuring quantity of heat energy. The amount of heat required to raise the temperature of one pound of water 1 degree Fahrenheit under stated conditions of pressure and temperature.
Coal bed correlation	The determination of the spatial position (e.g., the lateral extent of coal beds A, B, C, etc.) of one geologic feature (e.g., coal intersections at drill hole x) in relation to others (e.g., coal intersections at drill holes y, z, etc.).
Commercial quantities	A determination that the coal deposit discovered under a prospecting permit is of such character and quantity that a prudent person would be justified in further expenditure of his labor and means with a reasonable prospect of success in developing a valuable mine.
Demonstrated reserve estimate	A collective term for the sum of coal in both measured and indicated reserves.
Discounted cash flow	A procedure that considers costs and revenues that could be expected over the projected life of a mine. It discounts these dollars--future costs and revenues--by reflecting changes in the value of money over project life to make these future dollars comparable with today's dollars. The result is an estimate of the cash value of the property (revenues minus costs) at the present time.
Identified resource estimate	A tonnage estimate of a specific body of coal whose location, rank, quality, and quantity are known from geologic evidence supported by engineering measurements.

Indicated reserve estimate	A tonnage estimate of coal for which estimates of rank, quality, and quantity have been computed partly from sample analyses and measurements and partly from reasonable geologic projections.
In-place reserve estimate	See "reserve estimate."
In-place resource estimate	See "resource estimate."
Logical mining unit	An area of land in which the coal resources can be developed in an efficient, economical, and orderly manner as a unit with due regard to conservation of coal reserves and other resources. It may consist of one or more Federal leaseholds, and may include intervening or adjacent lands in which the United States does not own the coal resources. But all the lands in a logical mining unit must be under the effective control of a single operator, be able to be developed and operated as a single operation, and be contiguous.
Measured reserve estimate	A tonnage estimate of coal for which estimates of the rank, quality, and quantity have been computed, within a margin of error less than 20 percent, from sample analyses and measurements from closely spaced and geologically well-known sample sites.
Offered lands	The lands to be exchanged in return for leases elsewhere. The offered lands are also referred to as the PRLA lands.
Preference right lease application	An application for a noncompetitive Federal coal lease filed in compliance with 43 CFR 3430. The application can only pertain to lands under prospecting permit before enactment of the Federal Coal Leasing Amendments Act of 1976.
Recoverable reserve estimate	A tonnage estimate of coal representing that part of the reserve (in-place reserve) that can be mined using current technology and economics.

Reserve estimate

A tonnage estimate of coal representing that part of the identified resource which is of minable depth and thickness.

Resource estimate

A tonnage estimate of coal representing a concentration of coal in such form that economic extraction is currently, or may become, feasible.

Selected lands

The lands to be leased in exchange for relinquishment of the PRLAs. The selected lands are also referred to as the exchange lands.

CHAPTER 1

INTRODUCTION

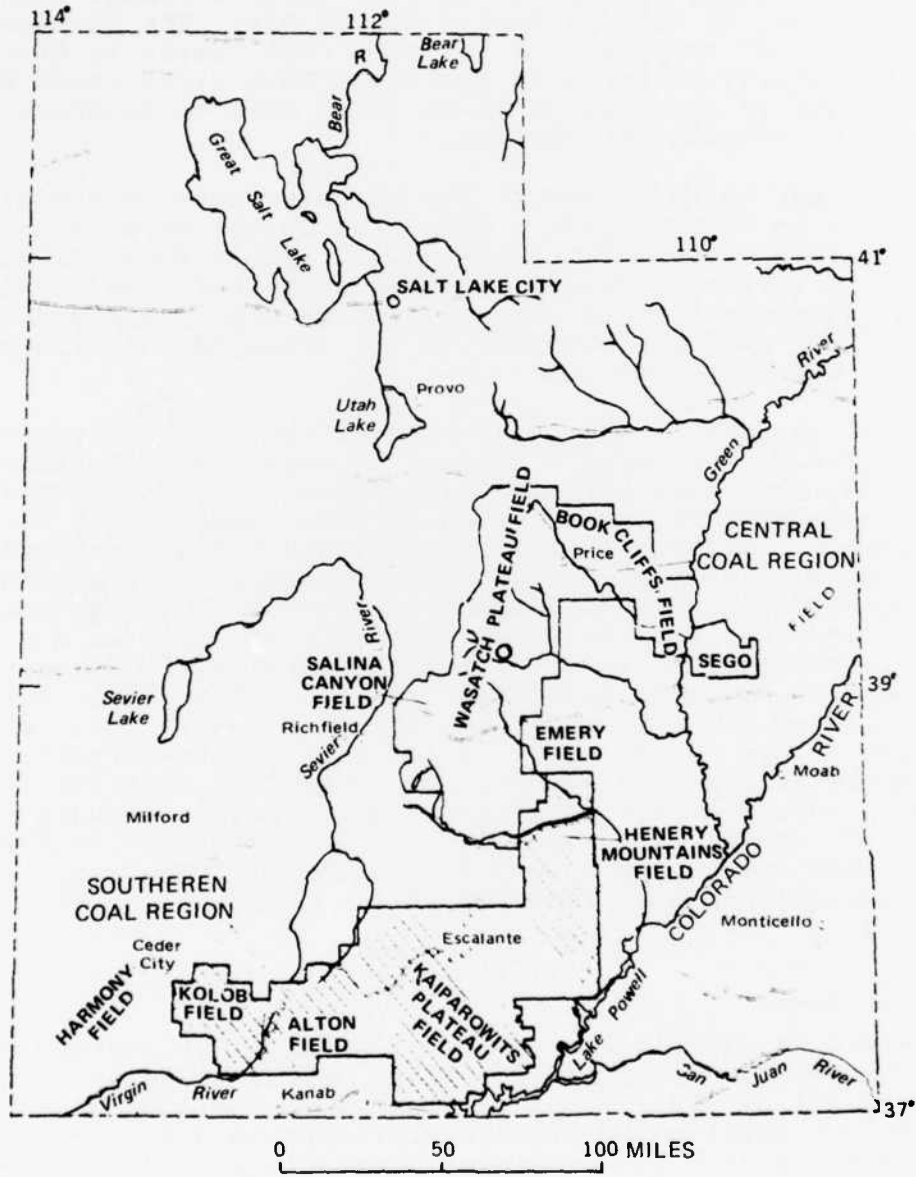
This report analyzes the Department of the Interior's evaluation and handling of a proposed coal lease exchange authorized by the Congress in 1978 by Public Law 95-554. The law authorizes the Secretary of the Interior to issue coal leases to Utah Power and Light Company in exchange for preference right lease applications (PLRAs) ^{1/} for coal on lands in an area of southern Utah known as the Kaiparowits Plateau.

The lands to be leased if the exchange were consummated--referred to as the selected lands--include all or a part of 24,506 acres on three tracts in central Utah's Wasatch Plateau. Eight PRLAs involving 18,325 acres of land--referred to as the offered lands--were to be relinquished by Utah Power and Light Company. The general locations of the selected and offered lands are shown on the map on page 2.

Prior to authorizing the exchange, the Congress considered granting Interior general authority to make lease exchanges. This would have given Interior discretion to make exchanges where development of leased lands or PRLA lands is not feasible or advisable. Without such authority, individual exchange proposals, with certain exceptions, must be separately considered by the Congress. While the Senate Committee on Energy and Natural Resources and the House Committee on Interior and Insular Affairs were inclined to have the Secretary of the Interior given general exchange authority, the House Committee, in particular, believed that granting such authority would require more extensive study. Thus, the Congress limited the authorization to three specific proposed exchanges. We believe this report will provide feedback to the committees on a specific exchange they authorized, contribute generally to the committees' review of the exchange issue, and also provide the full Congress with a better understanding of the complexities associated with making exchanges.

^{1/}A preference right lease application is an application for a noncompetitive Federal coal lease which, under the Mineral Leasing Act of 1920, could be granted if the applicant did sufficient drilling or other exploration to demonstrate the existence of coal in commercial quantities. Since the applications for the PRLAs held by Utah Power and Light Company were filed, the Federal Coal Leasing Amendments Act of 1976 was passed to require that all future coal leases be awarded based on competitive lease sales.

SOUTHERN AND CENTRAL UTAH PRINCIPAL COAL FIELDS



- General area of exchange lands on the Wasatch Plateau
- General area of PRLA lands on the Kaiparowits Plateau

Source: U.S. Geological Survey

ENVIRONMENTAL CONCERNS ON
THE KAIPAROWITS PLATEAU

In 1972, the Utah Geological and Mineralogical Survey estimated that the Kaiparowits Plateau coal field contained over 15 billion tons of coal. This coal is essentially an untapped resource. Including Utah Power and Light Company's holdings, there are 15 PRLAs covering 50,308 acres and 71 undeveloped leases totaling 131,128 acres on the plateau. Currently, no coal is being produced from the field, and the small amounts of past production have been confined to limited local markets.

Development interest has been slow to develop largely because of environmental concerns. This is illustrated by efforts in the early 1970s by three companies to obtain approval to construct a 3,000-megawatt, coal-fired electric generating plant on the plateau. The final environmental impact statement for the project was issued in March 1976. However, the companies finally dropped the project for environmental reasons because of opposition, high development costs, and uncertainties about a market.

In authorizing the exchange, the Congress recognized that the PRLA lands are in an area which is environmentally sensitive. Interior officials also told us that environmental concerns were basic factors in their support of the legislation. In August 1980, however, a new dimension to understanding the environmental consequences of mining was added by way of a report done under contract for the Bureau of Land Management (BLM), which indicated that a substantial level of coal production on the plateau would be possible without violating environmental protection standards.

BLM's FAILURE TO ISSUE
LEASES OR REJECT THE PRLAS

Since 1972, when the PRLAs authorized for exchange were filed, Utah Power and Light Company has attempted to obtain preference right leases. In 1971, Interior imposed a leasing moratorium. This slowed the processing of PRLAs where prospecting permits had already been issued. Furthermore, in 1976 Interior changed its regulations pertaining to the requirements for demonstrating commercial quantities. 1/ Consequently, Utah Power and Light Company had to make its showing to support a commercial quantities determination on two different occasions. The determinations were affirmatively upheld by the U.S. Geological Survey (USGS)--which has responsibility within Interior for making resource and economic evaluations in support of any lease decisions--in 1974 and again in 1977. However, BLM--which has responsibility

1/See the glossary for definition of commercial quantities.

for coordinating pre-lease activities and for awarding leases-- never confirmed the USGS decision.

A court order was issued in a lawsuit, NRDC vs Hughes, in 1977 and modified in 1978 1/ which prevented any further leasing, with limited exceptions, until defects in the programmatic environmental impact statement for Interior's leasing program were corrected. This order, for the most part, prevented leasing until 1979, when Interior implemented a new leasing program.

In 1976, the company filed a lawsuit demanding the processing of the PRLAs and issuance of leases. Utah Power and Light Company dropped its lawsuit in 1979 after the Congress authorized the exchange. However, the company and Interior agreed that if the exchange were not consummated, the lawsuit might be pursued.

THE BASIC REQUIREMENTS FOR MAKING AN EXCHANGE

The law authorizing the exchange requires that the PRLAs and the leases to be issued in the exchange be of "equal value." It also states that the secretary is not required or obligated to take any action or to make any commitment to a lease applicant with respect to issuance, administration, or development of any lease.

In July 1979 Interior, the United States Forest Service, and The Utah Power and Light Company made an agreement 2/ specifying how the proposed exchange would be evaluated. This agreement superseded a March 1979 agreement between Interior and the company that (1) did not include the Forest Service as a signatory, (2) specified that Utah Power and Light Company would drill the exchange lands to obtain basic coal resource data needed to evaluate the proposed exchange, and (3) omitted details of how the exchange would be evaluated.

The agreement required that Utah Power and Light Company submit all available information to enable USGS to determine the amount of demonstrated reserves 3/ in the area covered by the PRLAs. The reserve estimates would be in accordance with USGS Bulletin 1450-B, "Coal Resource Classification System of the U.S."

1/National Resources Defense Council, Inc. v. Hughes, 437 F. Supp. 981 (D.D.C. 1977), Modified, 454 F. Supp. 148 (1978).

2/See appendix I for the July 1979 exchange agreement.

3/The term "demonstrated reserves," as well as other resource terms, is defined in the glossary.

Bureau of Mines and U.S. Geological Survey." The agreement stipulated that USGS would drill the exchange lands on the Wasatch Plateau.

The agreement also required that the estimate of value of both the exchange lands and the PRLA lands would be made using the USGS Coal Resource Economic Evaluation Model. The agreement established marketing and transportation assumptions for use in estimating the value. It also stipulated that the value estimate would not be binding and would be subject to major modification or revision prior to a final value decision.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of our review was to evaluate key issues relevant to consummating the proposed exchange and establishing a broad exchange policy. We undertook the review for the following reasons:

- In a recent report, 1/ we identified an unnecessary expenditure of funds for coal drilling, and we wanted to further evaluate this issue.
- The Secretary of the Interior had to decide whether to approve and consummate the proposed exchange and, because of the critical issues involved, we saw an opportunity for a constructive evaluation before a decision is made.
- The Congress authorized this exchange, and a report would provide feedback on Interior's evaluation of the proposed exchange, identify any major problems with such an exchange, and offer information for use in reassessing the desirability of giving Interior general exchange authority.

We reviewed the pertinent sections of the following laws, as well as Interior's implementing regulations: Public Law 95-554 (October 1978), the Federal Coal Leasing Amendments Act of 1976 (amending 30 U.S.C. 181, et seq.), the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201, et seq.), the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701, et seq.), and other laws that have been enacted granting specific exchange authority.

1/U.S. General Accounting Office, "A Shortfall in Leasing Coal from Federal Lands: What Effect on National Energy Goals?" EMD-80-87, Aug. 22, 1980.

We also made on-the-ground and aerial inspections of the PRLA lands and the exchange lands, accompanied by BLM and USGS officials.

We focused our review on the following areas:

- The validity of the PRLAs.
- The adequacy of coal data for estimating reserves.
- The reasonableness of the economic evaluation.
- The prospect for competitive bidding on the exchange lands.
- The appropriateness of USGS drilling on the exchange lands.

To evaluate the PRLA validity issue, we reviewed the PRLA case file maintained by BLM, congressional reports on the proposed exchange legislation, BLM exchange regulations, and recent court cases involving PRLAs. We also interviewed BLM officials and attorneys in Interior's Solicitor's Office.

To assess the adequacy of the coal data for the PRLAs, we reviewed the data and its interpretation submitted by Utah Power and Light Company. We compared this with the reserve estimate prepared by USGS and determined the reasons for any differences. Differences were discussed with the USGS geologist responsible for making the estimate and with management officials in the Conservation Division of USGS. We also discussed reserve estimating standards with officials in the Geologic Division of USGS. A geologist and a mining engineer on our staff assisted in the technical aspects of this review.

We reviewed the reasonableness of the economic evaluation by assessing the adequacy of the coal data and the market and transportation assumptions which were contained in the exchange agreement and incorporated into the evaluation. We interviewed USGS officials who conducted the evaluation and reviewed studies of fair market value estimating techniques prepared by Interior, the Department of Justice, and ICF Incorporated--whose study was done for Interior.

To ascertain the prospect for competitive bidding on the exchange lands, we reviewed expressions of leasing interest from coal companies in the proposed 1981 Utah coal lease sale and interviewed officials in the USGS, BLM, and Forest Service about coal company interest in leasing the exchange lands.

We also reviewed documents regarding USGS drilling on the exchange lands and discussed the reasons for this effort with officials of the USGS, BLM, Forest Service, Utah Power and Light Company, and Interior headquarters.

We conducted our review at the following agencies and locations:

Department of the Interior:

Office of the Assistant Secretary for Energy and Minerals, Washington, D.C.

Office of the Assistant Secretary for Land and Water Resources, Washington, D.C.

Office of the Special Assistant to the Secretary, Denver, Colorado

Office of the Solicitor, Washington, D.C.

Bureau of Land Management:

Office of the Assistant to the Director for Coal Management, Washington, D.C.

Utah State Office, Salt Lake City, Utah

Geological Survey:

Conservation Division Headquarters, Reston, Virginia

Conservation Division Central Region Office, Denver, Colorado

Office of the District Geologist, Salt Lake City, Utah

Office of the District Mining Supervisor, Salt Lake City, Utah

Branch of Coal Resources, Geologic Division, Reston, Virginia, and Denver, Colorado

Forest Service

Regional Forest Service Office, Ogden, Utah

Manti-LaSal National Forest Headquarters, Price, Utah

CHAPTER 2

THE PROPOSED UTAH POWER AND LIGHT

COMPANY COAL LEASE EXCHANGE

In a draft of this report transmitted on May 6, 1981, to the Secretary of the Interior for comment, we stated that the proposed Utah Power and Light Company coal lease exchange should not be consummated for the following reasons:

- Interior had not determined that Utah Power and Light Company has a right to be issued preference right leases.
- Interior's resource and economic evaluation of the PRLA lands was inappropriate and unreliable because of inadequate data.
- Interior was inappropriately considering exchanging prime coal lands that have known competitive interest.

After receiving our draft report, Interior decided to (1) reject the exchange, and so notified Utah Power and Light Company on June 12, 1981; (2) determine the validity of the PRLAs; and (3) include the selected lands in central Utah in upcoming competitive lease sales--all actions which we had urged and commend. This chapter briefly discusses some of the major pitfalls experienced by Interior in evaluating the particular exchange proposal which could surface again with other exchange proposals. In addition, the analysis should assist the Congress in better understanding the complexities involved in evaluating exchange proposals and in any further consideration it may want to give to granting Interior general exchange authority.

INTERIOR HAD NOT DETERMINED WHETHER UTAH POWER AND LIGHT COMPANY HAS A RIGHT TO BE ISSUED PREFERENCE RIGHT LEASES

Most basically, while Interior was evaluating the proposed exchange, there was an unanswered question as to whether Utah Power and Light Company had a valid right to be issued a preference right lease, thus whether an exchange was even appropriate. The prior administration entered into an exchange agreement with the company and began its evaluation on the basis that this question did not need to be addressed because the Congress authorized the exchange. However, we believe the Congress clearly intended that before accepting the PRLAs, they would have to meet the requirements of the Mineral Leasing Act of 1920. Two of the eight prospecting permits for which Utah Power and Light Company submitted PRLAs were of questionable validity because the company did not have an approved prospecting permit at the time it did exploratory drilling. In addition, neither USGS nor BLM ever confirmed

whether the company had demonstrated the discovery of coal in commercial quantities in accordance with current regulations for all eight PRLAs--a prerequisite for issuance of preference right leases.

Regarding the validity of the two permits, in January 1979, the BLM Salt Lake City office requested guidance from BLM headquarters regarding their validity, stating: "This is one of the first issues that must be resolved in connection with any proposed exchange under Public Law 95-554." BLM needed guidance because Utah Power and Light Company conducted drilling after the initial prospecting permit period ended but before BLM approved an extension. BLM headquarters requested the Solicitor's office to review the issue.

Before the final exchange agreement was signed in July 1979, Interior had decided not to determine the PRLAs' validity. In May 1979, BLM instructed its Salt Lake City office that the PRLAs were to be considered valid for purposes of the exchange and that there was no need to resolve the validity of the PRLAs in order to process the exchange. Officials told us that at the time, it was believed that the 1978 law authorized the exchange regardless of the the PRLAs' validity. In its June 12, 1981, response to our draft report, Interior stated that it had now determined that the PRLAs are valid.

Regarding the commercial quantities determination (a prerequisite for issuance of preference right leases), in 1974 and again in 1977, USGS made a determination that the company had made a discovery of workable coal in commercial quantities. It recommended to BLM that preference right leases be issued, but the recommendations were never acted on.

Since USGS's last recommendation in 1977, regulations have been modified to explicitly include in the commercial quantities definition costs of exercising environmental protection measures and related costs. The 1977 determination did not consider all environmental protection costs according to USGS field officials. Consequently, the previous recommendations are not in accordance with existing regulations.

Although the law authorizing the exchange does not specifically state that Interior must determine whether the PRLAs and the prospecting permits upon which they were based are valid, the Congress clearly intended that such determination be made. In a report on the proposed legislation, 1/ the Committee on Interior and Insular Affairs said:

1/U.S. House of Representatives, Committee on Interior and Insular Affairs, Report No. 95-1635, pertaining to H.R. 13553, Sept. 27, 1978.

"The committee assumes that the Secretary will ascertain that the rights to leases he receives in exchange for a lease or leases to other lands will be valid rights which would entitle the holder thereof to a lease or leases on the lands described in the preference right lease applications listed in section 1 of the amendment."

Furthermore, a report by the Committee on Energy and Natural Resources 1/ stated:

"Before the Secretary may accept a preference right lease application in exchange for a Federal coal lease, he must satisfy himself that the application and permit upon which it was based met all the requirements of the Mineral Leasing Act of 1920."

Interior, in commenting on our draft report, advised us that a commercial quantities determination will be made on the PRLAs by December 31, 1981.

INTERIOR'S RESOURCE AND ECONOMIC
EVALUATION OF THE PRLA LANDS WAS
UNRELIABLE AND INAPPROPRIATE
BECAUSE OF INADEQUATE DATA

In addition to the question of whether Utah Power and Light Company had a right to preference right leases, there was also a lack of data to make a realistic estimate of the coal reserves on the PRLA lands. This data deficiency, plus the restrictive nature of the transportation and marketing assumptions, caused the exchange evaluation to be inadequate and unreliable. This situation prevents the making of a valid "equal value" determination, as required by legislation authorizing the exchange.

Inadequate coal data

The coal data for the PRLA lands are not adequate for making a reliable estimate of economic value. Not enough data are available to determine the location, extent, and quantity of coal that is minable and its worth per ton.

All drilling on the PRLA lands was performed between 1970 and 1972 in accordance with the prospecting permit terms. Most of the drilling was done by Utah Power and Light Company. The drilling density is somewhat less than one drill hole per square mile. A study in a similar area in the Kaiparowits Coal Field south of the PRLA lands indicates that one drill hole per half-mile--which could mean as much as three times as many drill holes--

1/U.S. Senate, Committee on Energy and Natural Resources, Report No. 95-1169, pertaining to S.3189, Aug. 25, 1978.

would be needed to develop a mining plan. Even though drilling requirements are site specific and depend on the requirements of individual companies, both USGS and Utah Power and Light Company agreed that substantially more drilling would be necessary to develop a mining plan.

The USGS geologist who estimated the reserves for the exchange evaluation stated in June 1980 that "***additional data are needed before individual beds can be correlated and thereby identified for mining purposes." He estimated that as many as 71 additional drill holes might be needed to correlate the beds. Estimates by another USGS geologist and also a mining engineer who reviewed the PRLA data suggest that possibly 100 holes and perhaps as many as 140 holes would be needed. The USGS mining engineer who evaluated the PRLAs said in June 1980 that "***it was apparent that individual coal bed correlations may not be reliable. This would affect the validity of the mine plan. However, further refinement was not possible without considerably more drilling."

In August 1979, Utah Power and Light Company submitted a report to Interior, for the purpose of an exchange evaluation, presenting its analysis of the coal deposit on the PRLA lands. The company estimated that for the northern two-thirds of the PRLA lands, the coal bed correlations--which it made--have a reliability factor of about 90 percent or more and for the southern third, a reliability factor of about 70 percent. However, it did not indicate how these reliability factors were developed. In addition, the company stated that

"Present geologic data permit a gross evaluation of the coal seams relations so that general mining plans can be developed for the Garfield Deposit (PRLA lands). A more comprehensive understanding of the variations in seam thicknesses, locations of rock splits, intervals and sediments between seams, and local uncertainties in seam correlations must be developed prior to the preparation of detailed mine plans." (Emphasis added.)

Based on a review of the drill hole data and the coal bed correlations submitted by the company, our geologist and mining engineer concluded that the available coal data are not sufficient to reasonably correlate the coal beds.

The reserve estimates made on the basis of this data were twice judged adequate by USGS for the qualitative test of determining whether coal has been discovered in commercial quantities--the prerequisite for issuance of a preference right lease. This was possible, even though the estimates differ by as much as 300 million tons, because USGS considers enough coal to be available to support a commercial mine.

However, neither USGS nor Utah Power and Light Company considers the data adequate for making final determinations of minable coal beds. As many as 13 coal beds may be minable, although they do not all occur at the same location. In many cases, the thickness of the coal beds rapidly increases and decreases over short distances, and there are numerous situations where the coal beds split. This makes it more difficult to estimate coal reserves than where coal beds are uniform in thickness and continuous in extent.

According to USGS, it is not disputed that coal in the magnitude of hundreds of millions of tons could possibly be mined, but we believe the precision of the estimate is not acceptable for making an economic evaluation and determining how much coal to lease in exchange for the PRLA lands. Where a coal data problem exists in any exchange evaluation, Interior needs to know how much minable coal is contained in the selected and offered lands because it will have to determine how much coal to lease to make the exchange. Where the coal data for these lands are inadequate, Interior cannot determine the exact tonnage that should be leased.

Nonexistent transportation facilities

No viable transportation facilities exist to move coal out of the Kaiparowits Coal Field. About 250 miles of rail may be needed to access the PRLA lands. Preliminary studies have been done (one by a major railroad), but detailed design and engineering studies have not been done; no right-of-way acquisition has taken place; and, of course, no construction has been undertaken.

Assumptions about the cost of transportation and its allocation among coal producers, particularly when the future of transportation facilities--which are nonexistent--is uncertain, increases the subjectivity of an economic analysis. As we stated in a previous report ^{1/} "Uncertainty may cause the calculation of a fair market value that is either too high or too low, depending on the assumptions about transportation and the party who would pay for the initial investment."

Inconsistent marketing assumptions

There is currently no market for the coal in the lands for which Utah Power and Light Company holds PRLAs, and it is uncertain whether a market will develop in the near term or distant future. The assumed market for coal production on the PRLA lands--for purposes of the exchange evaluation--is the proposed Intermountain Power Project in Utah. This is stipulated in the

^{1/}U.S. General Accounting Office, "Issues Facing the Future of Federal Coal Leasing," EMD-79-47, June 25, 1979.

exchange agreement (July 1979). However, the environmental statement (October 1979) for the project states that "Coal would come from Central Utah coal fields, such as the Wasatch Plateau and the Emery coal fields." The PRLA lands are located in southern Utah.

The estimated annual production rate for the proposed mines that consist primarily of the PRLA lands is 12 million tons. The environmental statement for the Intermountain Power Project forecasts total annual coal requirements of about 8 million tons, so even if Utah Power and Light Company supplied 100 percent of the project's coal requirements, it would probably need other markets to produce at the 12-million ton capacity assumed in the exchange evaluation, thus possibly resulting in different transportation cost and selling price estimates.

In addition, the exchange agreement assumed an annual coal requirement for Utah Power and Light Company that is far below the projected annual production rate of the PRLA lands. A BLM field official confirmed this and told us that Utah Power and Light Company bought a 25-percent participation in the Intermountain Power project and would provide at least 25 percent of the coal for the project--about 2 million tons per year. However, the project has not yet acquired its coal source.

For purposes of the exchange evaluation, the total annual coal requirement needed by Utah Power and Light Company is 3.5 million tons for two powerplants--this was mutually agreed to by the company and Interior. Of this amount, the market for the PRLA lands would be about 2 million tons per year for the planned Intermountain Power Project. The agreement's terms would result in an annual production requirement of no more than 3.5 million tons for making the "equal value" determination.

A USGS field official recognized these inconsistencies but told us he attempted to, but could not, obtain more explicit marketing information from Utah Power and Light Company. Consequently, USGS assumed all the coal would be consumed in the market area stipulated in the agreement.

Markets other than the Intermountain Power Project can be expected to develop. After considering the coal requirements for the Intermountain Power Project and the Department of Energy's preliminary production goals, the Regional Coal Team for the 1981 Uinta-Southwestern Utah coal lease sale forecasted an annual supply deficit in 1990 for Utah of 5.5 million tons. This indicates that the market for Utah coal is expected to continue to grow and new markets other than the Intermountain Power Project will develop. Furthermore, the Department of Energy's January 1981 survey of coal mining capacity indicates that coal production under contract in Utah will triple between 1980 and 1990.

INTERIOR WAS INAPPROPRIATELY CONSIDERING
EXCHANGING PRIME COAL LANDS THAT HAVE
KNOWN COMPETITIVE INTEREST

Consummation of the proposed exchange would have resulted in noncompetitively leasing a prospectively highly competitive tract--North Horn Mountain. Offering the tract in a competitive sale would provide Utah Power and Light Company an opportunity to obtain it, while at the same time not denying other interested parties the same opportunity. In commenting on our draft report, Interior stated that all proposed exchange tracts, including North Horn Mountain, would be included in upcoming competitive lease sales.

In our 1979 report, 1/ we stated that

"***if the proposed exchange tract is of interest to more than one competitive lease bidder--e.g., if it is of sufficient size to be mined independently of other coal properties or in conjunction with other coal properties held by two or more potential bidders--it might be desirable to offer the tract for long-term competitive leasing to permit all interested parties to bid, thus promoting competition."

The legislative history of the 1978 law authorizing the exchange does not specifically address the issue of favoring an exchange where a competitive interest may exist. It did not discuss leasing the North Horn Mountain tract but does discuss leasing two other tracts--Cottonwood and Meetinghouse Canyon--that are adjacent to coal properties owned and being mined by Utah Power and Light Company. The House report 2/ states:

"The committee has been advised that there are unleased Federal coal lands surrounding leases presently held by Utah Power and Light Co. which are now providing coal to two nearby powerplants. Leases to these lands could be issued by the Secretary of the Interior to exchange for the preference rights held by the company."
(Emphasis added.)

We have not identified any interest in these two tracts other than by Utah Power and Light Company. (This is not to say that such interest may not be shown at a competitive lease sale.) However, in October 1979, three companies, including Utah Power

1/U.S. General Accounting Office, "Issues Facing the Future of Federal Coal Leasing," EMD-79-47, June 25, 1979.

2/U.S. House of Representatives, Committee on Interior and Insular Affairs, Report No. 95-1635, pertaining to H.R.13553 Sept. 27, 1978.

and Light Company, submitted expressions of interest in leasing the other tract, North Horn Mountain. Also, officials of the USGS office in Salt Lake City advised that at least five other companies may be interested in this tract. It is not surrounded by any coal leases or other coal properties held by Utah Power and Light Company. The company does own a small area of land adjacent to the tract. However, the tract is not adjacent to any producing coal mine.

Before the exchange agreement was signed, it was uncertain how extensive competitive interest would be for the exchange lands. The expressions of interest for the first competitive lease sale were not received until the late summer and fall of 1979. However, there was sufficient information available to indicate that at least one of the tracts--North Horn Mountain--would spark considerable interest. This is indicated by the tract's large size, location, and type of coal. In fact, this tract comprises one of the larger areas of unmined coal on the Wasatch Plateau. After the exchange agreement was signed, drilling by USGS in the summer and fall of 1979 confirmed that the tract would probably be the largest one to be offered for lease in Utah--either competitively or by exchange--since the moratorium on coal leasing in 1971 and at least until the lease sale planned for 1983. The following table compares this tract with the other tracts that may be leased in 1981 and 1982 in Utah.

Table 1
Comparison of the North Horn Mountain
Coal Lease Tract With Tracts
Identified for Competitive Leasing
in 1981 and 1982 (note a)

<u>Tract</u>	<u>Acres</u>	<u>Reserves</u>	
		<u>In-place</u>	<u>Recoverable</u>
		----- (thousand tons) -----	
North Horn Mountain (note b)	21,043.0	<u>c/246,500</u>	<u>c/98,600</u>
Tucker Canyon	161.4	2,150	870
Slaughterhouse Canyon	440.0	2,190	1,860
Emery South	748.5	11,530	5,360
Rilda Canyon	640.0	19,500	7,800
Miller Creek	1,300.0	26,700	10,680
Meetinghouse Canyon (note b)	1,063.0	31,000	12,400
Cottonwood (note b)	2,400.0	57,800	23,120
Emery North	2,161.0	48,700	30,550
Gordon Creek	3,976.1	82,500	33,000
Emery Central	<u>2,967.7</u>	<u>43,367</u>	<u>39,030</u>
Total	<u>36,900.7</u>	<u>571,937</u>	<u>263,270</u>

a/This is based on the Draft Regional Coal Environmental Impact Statement, Uinta-Southwestern Utah, September 1980.

b/This tract will be leased in a competitive sale if the proposed exchange is not consummated.

c/This estimate could change because of drilling planned for the 1981 drilling season to complete tract delineation.

Consequently, the possibility is strong that companies other than Utah Power and Light Company will bid for the North Horn Mountain tract. Offering the tract in a competitive lease sale will still provide Utah Power and Light Company an opportunity to obtain it, while at the same time providing other interested parties the same opportunity. This will decrease chances for the Government's showing of favoritism to one company over another. We are glad to see Interior's recent decision that the North Horn Mountain tract should be offered for competitive lease.

CHAPTER 3

BETTER MANAGEMENT NEEDED

FOR AN EFFECTIVE EXCHANGE PROGRAM

The Department of the Interior's handling of the proposed Utah Power and Light Company coal lease exchange pointed up a number of serious management weaknesses that need attention--particularly in view of the possible increase in future lease exchange proposals and the possibility that the Congress may want to reconsider giving Interior general lease exchange authority. These weaknesses include the following:

- Technical problems and normal operating procedures were overlooked.
- USGS technical and management people were not properly used.
- The discounted cash flow method was inappropriate for determining "equal value."
- Coal reserve evaluation standards are inadequate for evaluating the complex coal deposits on the PRLA lands.
- Unnecessary expenditures were made for Government drilling.

TECHNICAL PROBLEMS AND NORMAL OPERATING PROCEDURES WERE OVERLOOKED

Interior tended to overlook technical problems and disregard normal operating procedures on the premise that the Congress authorized the exchange and, therefore, it had to be consummated.

The lower ranks of USGS perceived that Interior wanted this exchange and that, regardless of the coal data deficiencies and the PRLA validity question, the exchange would take place. This understanding is also indicated in the investigation report on the exchange prepared by the Conservation Division of USGS. (See App. II.)

In addition, during the evaluation of the exchange, Interior officials did not follow USGS policy concerning the release of confidential data to private companies. This resulted in USGS giving Utah Power and Light Company information usually not disclosed to companies, even though USGS had already told the company that the information pertaining to specifics of the evaluation procedure, discount rates, the discounted cash flow (DCF) model,

and its related techniques would remain proprietary and were not subject to discussion. This may have potential economic and competitive impacts, should the North Horn Mountain tract be leased competitively--as is now planned.

Furthermore, the USGS field geologists who expressed professional opinions about the inadequacy of the coal data for making demonstrated reserve estimates and assessing the economic value of the PRLA lands stated that

"From the first BLM/GS meeting (Nov. 13, 1978) regarding proposed Utah Power and Light Company PRLA exchange the issue that the information regarding the application was deficient was raised, glossed over, and more or less ignored."

Before Interior and Utah Power and Light Company made the exchange agreement--which required specific determinations on the amount and value of the coal in the PRLA lands--USGS officials knew that data for the PRLA lands were not adequate for a comprehensive evaluation of the coal deposit. As far back as 1973, USGS field officials had noted that the limited drill hole density was insufficient to correlate coal beds.

A USGS geologic report, prepared in December 1979 to estimate the reserves for purposes of the exchange evaluation, stated that the coal data were inadequate to make individual bed correlations and concluded that any coal tonnage figure should be classified as a resource rather than a reserve as defined in USGS Bulletin 1450-B. Subsequently, USGS informed Interior that only resource estimates could be made, not demonstrated reserves as required in the exchange agreement. In a May 23, 1980, letter to the Assistant Secretary for Energy and Minerals, the USGS Associate Director said

"***the Conservation Division has determined that the information supplied by Utah Power and Light Company on their offered lands is not sufficient to make a reserve determination as provided for in the Exchange Agreement and required in the Code of Federal Regulations."

* * * * *

"***the offered lands have not been drilled sufficiently to permit correlation of individual coal beds within a degree of confidence sufficient to develop structure and isopachous maps of all beds to be mined in accordance with 43 CFR 3430-2.1(a)."

The letter presented two alternatives to resolve the problem: either to stop the evaluation, and inform Utah Power and Light Company that more coal data would be needed or to proceed with the evaluation, recognizing that only a resource estimate could be used in the evaluation.

Before a decision was made, a group of USGS geologists not involved in the exchange evaluation reviewed part of the data and concluded that some amount of demonstrated reserves could be determined for the coal bed data points which were supplied by the company. This says in effect that where a core hole penetrated a coal bed, it is certain that this coal extends out from the core hole at least some distance, proving some reserves, but how far the coal extends and the amount of reserves is unknown. These officials, however, made no attempt to determine whether adequate data existed to make a detailed economic analysis nor did they estimate demonstrated reserves or evaluate the reliability of the coal bed correlations.

Following this review USGS decided to "finalize" its reserve estimate and complete the economic evaluation anyway. A decision was made that Utah Power and Light Company's coal bed correlations should be accepted except where the USGS geologists could demonstrate the correlations were inappropriate. Our geologist and mining engineer noted instances where the correlations did not appear reasonable. The numerous data gaps over wide areas and the character of the coal beds raised questions in many instances over whether a bed intersected at one drill hole is the same bed intersected at the next drill hole.

USGS TECHNICAL AND MANAGEMENT
PEOPLE WERE NOT PROPERLY USED

In developing the exchange agreement with Utah Power and Light Company, Interior did not use USGS field experts in establishing the technical evaluation requirements of the agreement, thus Interior did not recognize data limitations which only became evident after the Department was committed to using exchange procedures that would require such data. In addition, clear lines of responsibility and authority were not established and thus, appropriate USGS management officials, at various levels, were not involved as they should have been throughout the course of the evaluation. Consequently, problems were not surfaced and resolved in a timely manner.

The agreement was developed by Interior officials who lacked experience in making coal reserve, mining, and economic evaluations. Technical experts in USGS field offices are the most familiar with the areas under consideration, with the problems encountered in doing the resource and economic evaluation work, and with the technical requirements of such work. However, they were not meaningfully involved in determining how the technical evaluation would be accomplished. Only after the agreement was developed were they advised as to its requirements and requested to comment.

Because of the failure to adequately deal with data problems in planning the exchange, the evaluation--once it was set in motion--was continually hampered by deficient data and questionable evaluation assumptions.

In addition, no focal point was established for managing the exchange evaluation. Instead, Interior and USGS headquarters officials often communicated directly with USGS field staff personnel evaluating the exchange and vice versa, bypassing various management levels. Field officials said that the chain of command was circumvented many times. In other cases, staff officials at Interior and USGS headquarters ignored problems and did not advise management, even though it was well known that this proposed exchange had secretarial interest.

Furthermore, USGS field officials, including the Central Region Area Geologist who was responsible for the technical evaluation, were not advised in a timely manner of matters that affected them. Many times they were asked to respond on short notice--such as being told to attend a meeting within the week in another city and sometimes not knowing the agenda--to resolve technical issues. Where the agenda was known, such short lead-times allowed them little time to thoughtfully and thoroughly evaluate issues prior to engaging in discussions with officials from BLM and the Forest Service and recommending actions.

In November 1980, USGS informed BLM that there was no economic justification on which to base an exchange and recommended that the proposed exchange not be consummated. The USGS determination was relayed to Utah Power and Light Company by the Secretary of the Interior's Special Assistant in Denver, after he had advised the Assistant Secretary for Energy and Minerals--who is responsible for USGS activities.

BLM neither approved nor disapproved the USGS recommendation. In December 1980, the Assistant Secretary for Land and Water Resources--who is responsible for BLM activities--informed the company that additional review was necessary and that a decision on exchange consummation would be left to President Reagan's administration. He determined a need for additional review even though BLM and USGS officials had already reviewed the economic evaluation.

THE DISCOUNTED CASH FLOW METHOD
WAS INAPPROPRIATE FOR DETERMINING
"EQUAL VALUE"

In February 1979, before the exchange agreement was signed, Interior's Assistant Solicitor for Onshore Minerals told the Assistant Secretaries for Energy and Minerals and Land and Water Resources that "Since the current procedures [discounted cash flow] are well established, and their validity is recognized by the Department, the Department could very properly use them in the exchange situation ***." Interior officials subsequently

decided to use the discounted cash flow method in making the statutorily required determination of "equal value."

The discounted cash flow method considers cost and revenues that could be expected over the projected life of a mine. It discounts these dollars--future costs and revenues--by estimating changes in the value of money over project life to make these future dollars comparable with today's dollars. The result is an estimate of the cash value of the property (revenues minus costs) at the present time.

The discounted cash flow method is a sound analytical approach and a widely taught and used method for evaluating capital expenditures and investment alternatives. However, it is not universally applicable to every case where an economic evaluation is desired.

For example, because of the effects of risk and uncertainty, including escalation and inflation impacts on costs and revenues, it is difficult to guarantee reliable estimates of value. Furthermore, data availability and reliability problems may limit the quantification of critical variables and parameters such as prices, costs, legal constraints affecting timing on revenues, investments, etc., that are essential to the analysis. Underlying assumptions may not always be clearly stated or may be too subjective for independent verification in situations involving uncertainty and data limitations. In addition, important variables which influence the outcome of the selected investment alternative--managerial efficiency, administrative delays, environmental values, opportunity costs, credit availability, etc.--may not be measurable in dollar terms and, therefore, not considered in the quantitative analysis of alternatives. Consequently, the choice of when and how to use it should only be made with a thorough understanding of its advantages and limitations.

In evaluating the proposed exchange, the method was used even though considerable uncertainty existed about several factors requiring assumptions. For example, as previously discussed, the density of drilling on the PRLA lands was not adequate for determining what coal could be mined. However, one of the assumptions made in performing the analysis was that the geologic and mining reports prepared by USGS accurately reflected the tract geologic conditions (reserve estimates, beds to be mined, etc.) and the actual manner in which the coal would be mined. Consequently, the USGS assumption that judgments and estimates about the geologic conditions and mining methods were reasonably accurate--when coal data were inadequate to make defensible assumptions--jeopardized the reasonableness of the economic value and made the entire process highly speculative and unreliable.

1/ICF Inc., "Observations on Fair Market Value for Federal Coal Leases," December 1979. Submitted to the Fair Market Value Task Force, Department of the Interior.

In addition, according to a report on fair market value by ICF Incorporated, 1/ "The sensitivity of the DCF (discounted cash flow) approach to inputs such as prices, costs, discount rates, and the timing and level of production all make it difficult to develop accurate fair market value estimates." In addition, a report by USGS, BLM, and Interior's Office of Policy Analysis 1/ indicates that a tract's value as estimated by the discounted cash flow model is very sensitive to selling price. In many cases, the price cannot be estimated with a high degree of certainty. The report states that satisfactory price-prediction models do not exist and are unlikely to be developable, and because of this, different economic estimates could result in substantially different tract values with only slight changes in input.

USGS field officials who make economic evaluations maintain that limitations regarding the sensitivity of certain input variables (specifically prices, costs, and discount rates) are not of major concern in the case of land exchanges because both offered and selected lands are treated in the same manner. They told us that changes in certain assumptions or data may change the value of the tract; however, the relative difference in value should not and, in the case of the proposed Utah Power and Light Company exchange evaluation, did not change significantly.

We disagree. Information and the circumstances surrounding each tract are not equal. Differences in geographical location, geological characteristics, coal quality, mining conditions, markets, transportation systems, etc., can result in significant differences in valuing the offered and selected lands. Consequently, the use of input variables such as prices, costs, and discount rates should be developed separately for each tract: coal prices may vary because of different markets and coal uses; costs may vary because of different mining techniques and labor requirements; and discount rates may vary because of differences in development risk.

This similar treatment of input variables may fail to account for differences between tracts and be inappropriate--as was the case with the proposed Utah Power and Light Company exchange. For example, an assumption built in to the discounted cash flow procedure was that the selling price of coal was the estimated value an operator would receive on new output given existing market conditions in the area of interest. In this case, coal markets could have been expected to be radically different between the offered and selected lands.

In addition, no market existed for coal from the PRLA lands,

1/Department of the Interior, "Final Report and Recommendation for the Secretary on Fair Market Value and Minimum Acceptable Bids for Federal Coal Leases," December 1979.

only an assumption about a single future market which was questionable because it may be supplied by central Utah coal. The assumption as to the single market was stretched further because it was forecasted to consume all the coal mined on the PRLA lands, even though more coal may be mined than it could use. Alternative markets were completely ignored. The lack of market information and major inconsistencies in the assumptions discredit the economic evaluation and demonstrate that any evaluation would likely be only a guess as to market and selling price.

In this exchange evaluation there were numerous unknowns for which values had to be estimated in using the discounted cash flow method. The validity of the end result was conditional upon the value designated for each of the unknowns. Consequently, the method did not provide a reliable estimate of the economic value of the venture, but only a qualified indication of whether the venture would be economically successful.

When so many uncertainties and unknowns exist, the economic evaluation can be manipulated to derive any desired value. An October 1980 USGS report (see appendix II) on the proposed exchange indicates that when the preliminary economic evaluation was done, assumptions were adjusted until the results showed that the exchange could take place. The report states that "Since the desirability of completing the exchange had been determined before the facts of the situation were known, it would appear that the economic model was being used to obtain an answer that was already known."

The report also questioned the feasibility of using discounted cash flow procedures for estimating the economic value of exchange lands and recommended a review of the procedures (the Coal Resource Economic Evaluation Model) to determine their appropriateness for calculating a fair market value for exchange purposes. We understand USGS is looking at the effect of using discounted cash flow procedures in exchange evaluations, but no conclusions or recommendations have yet been made.

COAL RESERVE EVALUATION STANDARDS
ARE INADEQUATE FOR EVALUATING
COMPLEX COAL DEPOSITS

At the time of the exchange evaluation, USGS had no policy regarding how reserve estimates should be made where correlation of coal beds is a problem, as was the situation for the PRLA lands. USGS Bulletin 1450-B is vague and does not explicitly require correlation of coal beds.

The forward to USGS Bulletin 1450-B states

"In order to use mineral resource terms with precision and common understanding and to compare resource data effectively, a joint U.S. Bureau of Mines and U.S. Geological Survey work group developed a standardized, definitive, broadly"

"applicable classification system to derive uniform, coordinated resource estimates."

However, the bulletin is subject to different interpretations--one being that because it states that the standards apply to individual coal beds, correlation is necessary to reasonably project the extent of a coal bed.

On the other hand, a USGS geologist who reviewed the coal data submitted by Utah Power and Light Company suggested that Bulletin 1450-B was prepared in order to facilitate the assessment of U.S. coal resources on a regional and statewide level. The objective, according to him, was to provide a set of standard criteria to consistently compile resource data that would be comparable. Under this interpretation, the bulletin is not applicable for determining characteristics of specific coal deposits to identify minable beds, compute reserve estimates, and forecast the economics of mining these deposits.

The USGS Conservation Division report on its handling of the exchange evaluation stated that USGS Bulletin 1450-B provided little guidance on determining "demonstrated reserves." The report recommended that the Division immediately initiate steps to revise Bulletin 1450-B and/or prepare an internal guide that specified criteria to be used for determining demonstrated reserves. The report also stated that a policy decision and guidelines are needed on whether a coal bed correlation is required for conducting economic evaluations for lease sales, PRLAs, and exchanges. However, guidelines for exchanges have not yet been prepared, although Interior indicated in its June 12, 1981, response to our draft report that they are being developed.

An incorrect correlation of the coal beds could result in an overstatement--or an understatement--of reserves and the withdrawal of substantial deposits of unleased coal from the competitive leasing process. Where technical data deficiencies exist, policy guidance and appropriate evaluation standards are needed to ensure resolution of data deficiency issues.

UNNECESSARY EXPENDITURES WERE MADE FOR GOVERNMENT DRILLING

Over a 2-year period, USGS unnecessarily spent over \$800,000 drilling the exchange lands in the Wasatch Plateau, which are part of the Manti-LaSal National Forest. ^{1/} In addition, USGS is committed to spending about another \$650,000 this year to complete the drilling project. Consequently, about \$1.5 million will have been spent drilling these lands. This expenditure was unnecessary because the drilling could have been done by Utah

^{1/}See app. III for a table of drilling costs pertaining to the exchange.

Power and Light Company, and scarce USGS resources could have been more effectively utilized for other drilling requirements.

Following Congress' authorization of the exchange, the exchange lands were identified and Utah Power and Light Company stated it could do the drilling in 1 year. BLM's February 1979 analysis of alternative methods for completing the exchange recognized that if Utah Power and Light Company did the drilling it could "***result in significant time and money savings to the government***." In early March 1979, Interior headquarters and Utah Power and Light Company agreed that the company would do the drilling. The Forest Service was not a party to this agreement.

After the March exchange agreement was made, the company submitted plans to evaluate about twice as much acreage as Interior originally anticipated--about 42,000 acres of Forest Service land, instead of about 21,000 acres. Subsequently, the Manti-LaSal National Forest headquarters indicated it would not be able to complete the environmental assessment work for the drill sites on the 42,000 acres in time to allow the drilling to be completed by November 1979, the target date specified in the agreement. However, a Manti-LaSal official said that some of the environmental assessment work had already been done or was planned to be completed in response to earlier drilling activities proposed by USGS.

On March 30, 1979, the USGS Director informed the Assistant Secretary for Energy and Minerals and the Assistant Solicitor for Onshore Minerals that USGS had funds to do the drilling. USGS was concerned that the Forest Service environmental assessment process would delay completion of the company's proposed drilling until 1981.

In a May 9, 1979, meeting, the drilling program on the exchange lands was discussed by BLM, the Forest Service, and Utah Power and Light Company. Because of Forest Service concerns, particularly with regard to the magnitude of the program and the proprietary nature of the drilling information, the company presented a modified proposal to drill three tracts and make all information public. According to a Regional Forest Service official, it was at this meeting that the Forest Service dropped its objections to the company doing the drilling. This understanding was reached, however, without USGS's participation--USGS officials did not attend the meeting in which the decision was made.

Neither BLM nor the Forest Service ensured that USGS was informed of the decision and, as a result, USGS proceeded with its own drilling plans. Consequently, on May 23, 1979, Interior headquarters, on the basis of a verbal USGS recommendation, directed USGS to do all the drilling needed for the exchange evaluation.

USGS headquarters officials told us they were unaware of the Forest Service position on the environmental assessments. Furthermore, they were unaware that in May 1979 the company had agreed to make the drill logs public if it were allowed to do the drilling. The officials indicated that if they had known these things, they would have recommended that Interior permit the company to do the drilling.

CHAPTER 4

CONCLUSIONS, RECOMMENDATIONS, AND AGENCY COMMENTS

Interior's handling of the proposed Utah Power and Light Company coal lease exchange revealed serious problems in making coal lease exchanges. Better management is needed to conduct an effective exchange program.

PROPOSED UTAH POWER AND LIGHT COMPANY EXCHANGE

The Congress did not require that the exchange be consummated, but did specify that an exchange of lands, if made, be for "equal value." The Congress also intended that Interior determine Utah Power and Light Company's right to be issued preference right leases. Interior entered into an exchange agreement with the company, however, and began its evaluation on the basis that it did not need to determine whether the company had a valid right to be issued preference right leases for the PRLAs authorized to be exchanged.

Secondly, there was a lack of data to make a realistic estimate of the coal reserves on the PRLA lands, thus making it impossible to make a valid "equal value" determination--as required by the legislation authorizing the exchange. Coal data for the PRLA lands was inadequate to ascertain with reasonable certainty how much coal land should have been leased in exchange for the PRLAs. The estimate of reserves is one of the critical data elements in making this determination. Reasonable estimates of which coal beds can be mined and how much coal can be extracted cannot be made on the basis of the limited coal data. Interior should not exchange lands on the basis of coal tonnage unless a reserve estimate is sufficiently reliable to forecast the value of the deposit. In the evaluation of the proposed exchange, it was not. This data deficiency plus the absence of a valid basis for making transportation and marketing assumptions would complicate any economic evaluation and fail to assure reasonable protection of the national interest.

Finally, Interior's evaluation of the proposed exchange considered noncompetitively leasing a prospectively highly competitive tract--North Horn Mountain. It was and is of known competitive interest to a number of companies and, in fact, comprises one of the larger areas of unmined coal on the Wasatch Plateau and would be the largest tract in Utah to be leased in a competitive sale since the leasing moratorium was lifted. Offering the tract in a competitive sale would provide Utah Power and Light Company an opportunity to obtain it, while at the same time not denying other interested parties the same opportunity. In this way, market forces would be allowed to operate more freely.

Interior's June 12, 1981, response to our draft report announced a number of appropriate actions consistent with our conclusions and proposals, including (1) its decision to reject the proposed exchange (it so notified Utah Power and Light Company of this decision on June 12, 1981), (2) a commitment to determine the company's right to preference right leases by December 31, 1981, and (3) its announced plan to offer the three exchange tracts--including North Horn Mountain--in upcoming competitive lease sales.

BETTER MANAGEMENT NEEDED FOR AN
EFFECTIVE EXCHANGE PROGRAM

While the Department has taken appropriate steps called for in our draft report, its handling of the proposed exchange pointed up a number of serious management weaknesses that need attention before it takes on any future exchange proposals.

First of all, Interior tended to overlook technical problems and disregard normal operating procedures on the premise that the Congress wanted the exchange consummated even if it would not be in the public interest.

In addition, Interior officials did not involve Geological Survey technical people in planning the technical requirements for making an "equal value" determination and, as a result, did not recognize the seriousness data limitations would have on the approach taken. Also, responsible management people were consistently bypassed or omitted from important decisions.

Further, the method used for determining "equal value"--the discounted cash flow method, in many cases a sound analytical technique--was inappropriate in this case because coal data were inadequate and transportation and marketing assumptions were of questionable validity. Consequently, the value determined by this method was not properly supported. Policy guidance and standards are needed to specify when this type of analysis is appropriate and when it is not.

Moreover, the Survey's present coal reserve evaluation standards are not adequate for evaluating complex coal deposits such as exist on the PRLA lands. The standards for resource evaluation in USGS Bulletin 1450-B (1) do not clearly set forth the criteria for evaluating reserves on a minable-size coal tract and estimating the economic value of that tract (2) nor do they provide sufficient guidance for estimating demonstrated reserves. Appropriate standards are needed to preclude controversy on how reserve estimates should be made.

Finally, the Survey spent \$800,000 and may spend about \$640,000 more this year unnecessarily for drilling the exchange lands--which could, and should in this situation, have been done by Utah Power and Light Company. Interior has no policy on

drilling of exchange lands. In the case of the proposed exchange, at one time Interior agreed that the company could do the drilling and then, because of problems, the Forest Service had reversed the decision. At the time of the reversal, however, Interior was unaware that the Forest Service had reached an agreement with the company that would allow the company to do the drilling. Lack of communication and coordination among the parties involved with the exchange occurred because no drilling policy had been established.

Future exchanges may be characterized by similar problems. Procedures that specify who should do the drilling, stipulating a uniform and well-defined approach for conducting drilling operations, would help prevent such unnecessary expenditures. Such procedures would inform all parties involved in the exchange as to drilling policy and ground rules. Consequently, as we stated in our August 1980 report, "A Shortfall in Leasing Coal from Federal Lands: What Effect on National Energy Goals?" explicit procedures are needed which specify that the exchange applicant-- and not USGS--drill the exchange lands.

RECOMMENDATIONS

In order to correct weaknesses in dealing with any future exchange proposals, the Secretary of the Interior should (1) clarify procedures for using the expertise of in-house technical people in preparing specifications for technical evaluations, (2) clearly delineate and then follow established lines of responsibility for implementing exchange actions, and (3) ensure that sound managerial and technical principles are adhered to in dealing with proposed exchanges. To help make this happen, the Secretary should direct the Geological Survey to:

- Set standards for the minimum level of data that are needed to evaluate a proposed exchange and not allow the exchange where that level of data is not available.
- Establish definitive criteria for determining when the discounted cash flow economic evaluation method is appropriate for use in exchange evaluations.
- Revise USGS Bulletin 1450-B or establish separate guidelines to clarify guidance on how reserve estimates are to be made for lease sale purposes, particularly in instances where coal deposits reside in complex geologic formations.
- Develop explicit procedures under which land exchange applicants could, and should, drill possible exchange tracts--thereby saving Federal expenditures and freeing the Survey's limited resources to satisfy other higher priority drilling requirements.

AGENCY COMMENTS

As discussed above, the Department of the Interior's June 12, 1981, response to our draft report (see app. IV) indicated basic agreement with the findings, conclusions, and proposals included in our draft. In addition, the response cited a number of specific actions--either planned or already initiated--which are consistent with what we had proposed. Most significantly, these include decisions to reject the proposed exchange and to include the exchange tracts in upcoming competitive lease sales--discussed in chapter 2. Accordingly, chapter 2, has been substantially modified to recognize these actions.

Concerning our recommendations to improve management of any future exchanges--the subject of chapter 3--Interior said it is currently examining management techniques and exchange procedures to reduce administrative costs by relying more heavily on market transactions, using bidding rights whenever possible, and continually reviewing and updating its discounted cash flow methodology to keep current within the state-of-the-art. In addition, it said Survey's Bulletin 1450-B is being revised and that until that is accomplished, separate guidelines are being developed to be used in calculating demonstrated reserves for purposes of processing preference right lease applications. We commend these steps.

Several other comments in Interior's June 12 letter warrant discussion. Interior emphasized several times in its response that its economic evaluation (completed in October 1980) showed the PRLA lands have no net present value and that even with "minor changes in one or more input variables to the discounted cash flow analysis" overall results of its evaluation were not substantially altered. The implication apparently is that the deficiencies pointed out by us concerning the lack of data and inappropriateness of the discounted cash flow analysis are not all that significant because "minor" changes in the assumption would still lead to a negative net present value. If this is, in fact, the implication, it is not valid. First of all, considering the lack of data, major changes in the assumptions are not inconceivable. Moreover, a preliminary evaluation by USGS itself in June 1980 showed the lands had a positive value based on an earlier set of assumptions--including assumptions about selling price and transportation costs. Thus, by manipulating the assumptions, the overall results of the evaluation could be substantially altered.

In addition, Interior indicated that even though coal bed correlations were difficult for purposes of exchange enough was known about the coal for doing an economic evaluation. We disagree. Had the final economic evaluation resulted in a positive net present value--which, as discussed above, depending on the assumptions, very easily could have happened, and which USGS' preliminary evaluation in fact did--Interior would had to have

determined how many tons of coal on the selected lands in central Utah to lease in exchange for coal on the PRLA lands. This would have been subject to considerable error as indicated by the estimates already made. For example, some estimates already differed by 300 million tons, even assuming the correlations made were accurate (which we doubt). Thus, we fail to see how Interior could ensure an exchange based on "equal value"--if it were to be made--under these circumstances.

Interior also stated that the amount of coal from the PRLA lands dedicated to the Intermountain Power Project--which we said was unrealistic--was irrelevant in doing the economic evaluation because the growth in demand for Utah coal over the next 10 years may possibly absorb any excess production from the PRLA lands not committed to the Project. However, the point is that the exchange agreement between Utah Power and Light Company and Interior and the resultant evaluation did not include this assumption. And, if it had--consistent with the discounted cash flow methodology--it would have been necessary to explicitly consider the alternative markets including an estimate of selling price for each market and the associated production and transportation costs for the coal produced for each market. This was not done. Furthermore, if it had been, it is possible that the PRLA lands may have had a positive net present value.

In our draft report we proposed, as an alternative to the exchange, that Interior award the company a certificate of bidding rights to apply against its bid in a future competitive lease sale. Because USGS--thru the discounted cash flow analysis--determined the PRLA lands had no value, we suggested that Interior consider basing the bidding rights on the fair market value as represented by the company's cash investment plus interest. The investment would be calculated on the basis of the company's exploration activities. Interior said it believed such action would require legislation, but that its regulations give it the authority to determine fair market value. The regulations state the determination of value will be "to the satisfaction of the lessee or lease applicant and the Secretary." Interior even discussed this approach with the company. Interior has since advised the company that if the PRLAs are determined to be valid, the company could request a certificate of bidding rights based on fair market value.

Finally, regarding the unnecessary expenditures of drilling funds, Interior now indicates that while it would have been preferable for Utah Power and Light Company to undertake the drilling program, drilling by USGS might have been necessary anyway for the tracts to be leased competitively had there been no exchange proposal. We disagree. The point is that in this instance Utah Power and Light Company did offer to do the drilling and to make the information public without assurance that the exchange would take place. Thus, Interior lost an opportunity to save Federal funds or otherwise utilize its limited resources on other drilling priorities.

Various other changes have been made in the final report to recognize Interior's comments.

AGREEMENT

This Agreement is between the United States Department of the Interior, United States Forest Service and Utah Power & Light Company.

The parties agree that evaluation and a full examination of the need for and the possible merits and benefits which might flow from issuance of coal leases elsewhere on federal lands in Utah (lease exchange area) in exchange for Utah Power & Light Company's coal lease application numbers U-1362, U-1363, U-1375, U-5233, U-5234, U-5235, U-5236 and U-5237 (PRLA's) as contemplated by Public Law 95-554, 92 Stat. 2072, are advantageous and in the public interest.

1(a). The parties agree to proceed with reasonable diligence so that by December 31, 1981, the Department will in accordance with this Agreement, be able to issue a lease or group of leases in the lease exchange area to Utah Power & Light Company in exchange for relinquishment of the PRLA's or a portion of those PRLA's of equal value to the lease or group of leases issued by the Department.

(b) The Department will not issue a lease or leases under this Agreement unless the Department and Utah Power & Light Company agree that an exchange should take place.

(c) The lease exchange area (sometimes referred to as Phase 1) consists of 25,342.48 acres from the Wasatch Plateau region identified as "Cottonwood" (2,400 acres), "Meetinghouse Canyon" (690.2 acres) and "North Horn Mountain" (22,252.28 acres). A detailed land description is attached as Exhibit 1.

2. Utah Power & Light Company represents that it is necessary for it to acquire coal from which production can be obtained by 1985 to meet its planned needs at the Hunter Power Plant Unit No. 4 in Emery County and at the Intermountain Power Project in Millard County. Utah Power's maximum annual fuel requirements for these power plants will be about 3.5 million tons per year. The parties recognize that Utah Power in pursuing this exchange for the above purpose will forego the opportunity for an early judicial determination concerning its PRLA's.

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3(a). Utah Power & Light Company agrees to submit to the Department by August 15, 1979, all available geological data, including drill logs, isopachous maps, an analysis of the chemical properties of the coal, the sulphur content and all other available relevant information needed to determine the amount of demonstrated reserves in the area covered by the PRLA's in accordance with USGS Bulletin 1450-B.

(b) Utah Power & Light Company shall submit to the Department by September 1, 1979, a proposed mining plan for the PRLA's based upon the information provided in paragraph 3(a). The mining plan shall comply with all applicable federal, state and local laws and shall contain at least the following information:

- (i) a description of the type and method of coal mining operation that is proposed, the engineering techniques proposed and the equipment proposed to be used;
- (ii) the anticipated time required to complete each phase of the mining operation;
- (iii) cross-section maps or plans of land depicting all known coal seams and the strike and dip of the coal to be mined, the location and extent of known workings of any underground mines, the known hydrology of the coal bearing strata, the location of spoil, waste, and refuse areas and of water treatment facilities;
- (iv) the location of all portals, mine openings and coal transportation systems; and
- (v) detailed estimate of the cost of all phases and aspects of mining and removing the coal, and reclamation.

Utah Power & Light Company shall also submit by September 1, 1979, a copy of all transportation cost studies made by or prepared for Utah Power & Light Company relating to the PRLA area.

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4(a). The Department, through the U.S. Geological Survey (USGS), shall complete all drilling and logging necessary to establish the amount of the reserves in the lease exchange area by November 15, 1979. This drilling will require approximately 23 holes to be drilled at or near the sites specified in attachment 2 to the Contract Schedule and Technical Specifications Utah Power & Light Exchange attached to the Agreement as Exhibit 2. The Department, acting through the USGS, shall direct that the drilling and logging of these holes, using best efforts, conform to the following technical specifications:

(i) all drill holes are to be bottomed at least 100 feet below the basal coal seam;

(ii) drilling activities are to be conducted 24 hours per day on a continuous basis for the completion of each drill hole except when operations on a continuous basis are prevented or interrupted by unforeseen or uncontrollable conditions. Each hole shall be geophysically probed promptly upon completion of its drilling;

(iii) drill holes are to be filled with fluid to the highest level that fluid will stand in the drill hole prior to geophysically probing; and

(iv) drill holes are to be geophysically probed in the following manner:

(1) natural gamma, s.p., gamma gamma (density), resistivity (wet and dry) and caliper logs are to be run on all holes.

(2) holes are to be logged at a speed of no greater than 5 feet per minute in the coal interval.

(3) logs are to be recorded at a scale of 1" = 5'.

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(b) The U.S. Forest Service agrees to complete all environmental assessments needed for the drilling and logging to be finished by November 15, 1979. This date will be adjusted accordingly if the assessments lead to the requirement of one or more environmental impact statements.

(c) The Department, acting through the USGS, shall, in accordance with the usual open file practices, make the information obtained as a result of the drilling in the exchange area available to the public and provide a copy to the U.S. Forest Service and Utah Power & Light Company and any other person who requests a copy. Any person who complies with subparagraph (c)(1) and (2) of this section may have an observer present on site throughout the drilling program.

(1) Any person who wishes to observe all or portions of the drilling and logging may do so by filing and obtaining the approval by the USGS of an observation plan. Each plan shall acknowledge that the observing party shall be responsible for transportation to and from the drilling site, and shall expressly include a waiver of any right to hold the United States, its employees or agents liable in any way for damages as the result of injuries or accidents that may occur during the observation of the drilling and logging program.

(2) No observer shall have any right to direct the Geological Survey or its agents on the conduct of any phase of the drilling program and an observer may not interfere with any phase of the drilling and logging program.

(d) Utah Power & Light Company shall submit to the Department by March 1, 1980, reports on the lease exchange area in the same form, scope and substance as those required for the PRLA's in Paragraph 3(b) of this Agreement.

5(a). The Department, acting through the USGS, shall make an estimate by May 1, 1980, based on the information available as a result of

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Paragraphs 3 and 4 of this Agreement and other relevant information, whether the coal in the Phase 1 of the lease exchange area is of greater, lesser or equal value to the coal in the PRLA area.

(b) This estimate shall use the Department of the Interior's "coal resource economic evaluation model" and shall take into consideration for each area:

(i) the amount of recoverable reserves calculated in accordance with USGS Bulletin 1450-B;

(ii) the rank and the sulphur, BTU, moisture and ash content of the coal;

(iii) the likely cost of mining the coal and the likely market price for the coal FOB the mine, assuming use by Utah Power & Light Company of coal from the lease exchange area at its Emery/Carbon County and Juab/Millard County sites and coal from the area of the PRLA's at Juab/Millard County sites; and

(iv) any other necessary information and assumptions.

(c) In estimating these costs and prices, the Department, acting through the USGS, shall assume: that all lease terms, including those affecting rent, royalty, diligent development and all federal, state and local taxes will be the same for both mines; that all necessary transportation to the areas involved will be available for both the coal in the PRLA area and the coal in the lease exchange area; that construction costs of mainline rail transportation will not be directly allocated to either property, although construction costs of rail spur lines will be directly allocated, that applicable transportation rates will reflect construction costs of mainline railroad transportation from each area to the assumed markets, total coal tonnages located in each region and prices which will be paid by all producers from the region; and that these transportation rates will be used to establish FOB mine prices.

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(d) The assumed market for the coal involved in these estimates is Emery/Carbon County and Juab/Millard County for coal from the lease exchange area and Juab/Millard County for coal from the PRLA area.

(e) This estimate shall not be binding and is expressly subject to major modification or revision prior to a final decision whether the coal in the lease exchange area is of equal value to the coal in the PRLA area.

(f) The Department shall promptly inform the U.S. Forest Service and Utah Power & Light Company of the estimate made in Paragraph 5 of this Agreement.

6(a). If the estimate of the value of the coal in the lease exchange area exceeds or equals the value of the coal in the PRLA area, the Department shall have no further obligation to identify, drill or study any additional lands in the lease exchange area to satisfy this Agreement, unless such estimate is modified pursuant to Paragraph 5(e) above, provided that:

(i) if the estimate of the value of the coal in the lease exchange area exceeds the estimate of value of the coal in the PRLA area by more than 25 percent, after consultation with Utah Power & Light Company, the Department may delete lands from the lease exchange area;

(ii) if, according to the estimates, the value of the coal in lease exchange area is less than 50 percent of the value of the coal in the PRLA area, the Department shall immediately notify the U.S. Forest Service and Utah Power & Light Company that it will identify additional lands necessary to constitute a lease exchange area containing at least 50 percent of the value of the coal in the PRLA area. In such event, the Department, after consultation

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with the U.S. Forest Service, shall select additional lands from the area available for leasing which is contiguous to the lease exchange area or contiguous to existing Utah Power & Light Company leases, within 30 days after the Department identifies the additional lands. The Department and the U.S. Forest Service shall adopt a schedule that provides for completion of any drilling in the added lands by November 15, 1980; and the Department shall adopt a schedule for completion of other necessary studies and reports, including revisions of mining plans prepared by Utah Power & Light Company by February 1, 1981;

(iii) if from the estimate it is determined that the value of the coal in the lease exchange area is equal to 50 percent of the value of the coal in the PRLA area, the Department will have no further obligation to adjust the lease exchange area.

7(a). The Department shall hold a scoping meeting on the environmental impact statement on the proposed exchange by June 1, 1980.

(b) The Department shall begin preparation of an environmental impact statement on the proposed exchange by June 1, 1980, and prepare and publish a final environmental impact statement by June 1, 1981.

(c) The U.S. Forest Service shall participate fully in the environmental impact statement process and shall take, by September 15, 1981, whatever steps are necessary to evaluate whether the exchange would be consistent with the land use plans for the affected portions of the national forest system.

8. The Department shall notify Utah Power & Light Company by December 31, 1981, whether and under what conditions it will issue leases for all or part of the lands in the lease exchange area in exchange for relinquishment of all or part of the PRLA's. Prior to notifying Utah Power & Light Company, the Department shall consult with the U.S. Forest Service and the Governor of the State of Utah.

9. If the Department and Utah Power & Light Company complete the exchange described in paragraphs 1-8 of this Agreement and if the value of the remaining recoverable reserves in the area of the PRLA's equals or exceeds the value of the coal in the lease exchange area, the parties shall proceed with reasonable diligence to complete a similar process to consider whether to exchange one-half of those remaining reserves in the area of the PRLA's for additional, available lands containing reserves of equal value contiguous to the Phase I lease exchange area or contiguous to existing Utah Power & Light Company leases or elsewhere in Utah. The remaining one-half of those reserves in the area of the PRLA's shall not be considered for exchange and shall be processed in accordance with applicable laws and regulations. If, following the exchange under Phase I, the value of the remaining recoverable reserves in the area of the PRLA's is less than the value of the coal in the lease exchange area, all of those remaining applications shall be processed in accordance with applicable laws and regulations.

10. This additional exchange shall be considered after December 31, 1981, in accordance with a schedule mutually agreeable to the parties.

11. If the Department and Utah Power & Light Company agree that progress toward consummating an exchange is no longer possible or desirable or if the Department has failed to comply with any of the completion dates set forth in this Agreement and its failure is not caused directly or indirectly by Utah Power & Light Company's failure to meet any of the completion dates set forth in this Agreement, Utah Power & Light Company may, after giving the Department 21 days written notice, institute an action seeking a writ of mandamus in the District Court for the District of Utah for the immediate issuance of leases for lands covered by the PRLA's. The Department agrees that upon institution of such action, it will join with Utah Power & Light Company in a joint motion to have the matter heard by the court on an expedited hearing schedule, and that

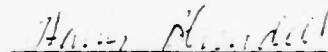
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should any appeal be filed from the decision of the District Court, the parties will join in a similar motion for an expedited briefing and hearing of any appeal. Utah Power & Light Company will not institute an action for mandamus for the issuance of the PRLA's prior to the time set forth in this paragraph.


12. The Department further agrees that if Utah Power & Light Company files the action discussed in Paragraph 11 above, it will not assert that the matter is not ripe for judicial determination.

13. The Regional Forester, Intermountain Region, United States Forest Service, is responsible for implementation of this Agreement on behalf of the United States Forest Service.


14. This Agreement will take effect immediately upon execution by the President of Utah Power & Light Company, by the Secretary of the Department of Interior and by the Chief, United States Forest Service and will supersede the previous agreement which was signed by the Secretary on March 1, 1979, and by the President on March 5, 1979, after dismissal, without prejudice, of Utah Power & Light Co. v. Andrus, Civil No. C-76-136, March 5, 1979.


 Harry Blundell, President
 Utah Power & Light Company

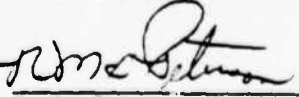
Dated: 7/30/79 Attest:


 Verl R. Topham
 Assistant Secretary
 Utah Power & Light Company

Dated: 7-9-79


 Cecil D. Andrus, Secretary
 United States Department of
 the Interior

Dated: 7/11/79


 R. Max Peterson, Chief
 United States Forest Service



United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VA 22092

In Reply Refer To:
ECS-Mail Stop 620

OCT 1 1980

Memorandum

To: Chief, Conservation Division
From: Utah Power and Light Evaluation Team
Subject: Report and recommendations on UP&L Land Exchange Study

The following represents the evaluation team's findings of the Division's efforts to carry out its responsibilities for evaluating the proposed UP&L property exchanges.

1. Comment

The Conservation Division lacks sufficient guidelines to conduct an evaluation for land exchanges. USGS's Bulletin 1450-B was used. It, however, provides little guidance on determining the term "demonstrated reserves." Guidance is needed so staff may properly conduct an economic evaluation.

Recommended Action

The Conservation Division should immediately initiate steps to revise the USGS's Bulletin 1450-B and/or prepare an internal guide that specifies criteria to be used for determining demonstrated reserves.

2. Comment

There is no formal mechanism to monitor the progress of land exchanges or lease sales. Informal communications between headquarters and field staff takes place, for the most part, by telephone. There is no assurance, however, that the management is apprised, in sufficient time, of slippages in work schedules or potential problem areas.

Recommended Action

The DDC/Onshore should establish work plans for monitoring long-range projects, such as lease sales and land exchanges. The work plans should include the major steps necessary to successfully complete the project. They should show milestones for each major step. Deadlines



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should be established by Reston staff in coordination with the Regional Manager, taking into account project completion dates set forth in legislation, by other bureaus, or Departmental decree.

3. Comment

There appeared to be many instances during the Division's evaluation of the exchange where proper communication channels were ignored or accidentally bypassed. Representatives of the Secretary's office would speak directly with field geologists or engineers conducting the evaluation. Field people would speak directly with Reston staff personnel without advising their immediate supervisor. Written communications were directed to the wrong people. In some cases, people working close to each other seemed to feel it necessary to write each other memoranda rather than talk to each other. These occurrences produced an environment where everyone thought they were properly informed. The result, however, was that people were not informed and could not make the appropriate decision.

Recommended Action

Sometimes informal communications are desirable and necessary. However, it is essential that formal communications channels are followed so that management can be properly informed. Guidelines should be prepared that stress the importance of proper channels of communications. Also, each onshore regional manager in conjunction with the Deputy Division Chief should publish a memorandum to all regional personnel outlining his policy with respect to the proper lines of communications. A point that should be stressed is the necessity to eliminate superiors being "surprised" by events about which they haven't been informed.

4. Comment

The Reston personnel involved in the UPL exchange lacked enough field experience to appreciate the problems that field personnel were having bringing the land exchange evaluation to a conclusion. It is also probable that the field people did not have an appreciation of policy questions asked by the Secretary's office and what the implications of these questions were. Without an appreciation of each other's problems, both levels were operating at distinct disadvantages.

Recommended Action

The DDC/Onshore together with the ADC/Management Support and the Onshore Regional Managers should devise a system of temporary exchanges of personnel between Reston and appropriate field offices with the

expressed purpose of providing some in-depth experience with respect to actual projects. These assignments should not be less than 1 year or more than 2. The DDC/Onshore should coordinate this effort with the ADC/MS to minimize the financial disadvantage that may be associated with personnel exchanges.

5. Comment

Early in the investigation, it was apparent that many individuals processing the exchange were opposed to it. Their opposition was based on their professional knowledge of the relative merits of developing the offered and selected lands. Several Department officials were aware of this attitude through discussions with both Reston and field personnel. Given this atmosphere, any errors in the evaluation that would tend to negate any exchange might be viewed as intentional. While the team did find some errors in the technical work (reserves) that biased the evaluation in favor of the selected lands, it is felt that the errors resulted from poor communications or judgments made in haste rather than intentional. Conversely, judgments were made that tended to enhance the value of the offered lands. For instance, allocating well costs differently than specified in the UP&L agreement. While the allocation scheme finally chosen was legitimate, oversight would tend to show that the modification changed the agreement unilaterally and reduced the offered lands value.

Recommended Action

Because of the significant financial implications attendant with such of CD's work, both Onshore and Offshore, the Division Chief should reaffirm to employees through the newsletter the importance of assuring that our work is accomplished with professional competence in an atmosphere of objectivity.

6. Comment

As mentioned above, the evaluation team found several errors in the technical work performed in the exchange. UP&L also noted errors in their critique of the evaluation.

Recommended Action

Manpower shortages and short deadlines are constraints that tend to preclude technical accuracy reviews. However, the DDC/Onshore should establish a policy that Regional Managers conduct peer reviews of technical work on a priority basis. High priority should be given to

land transactions involving large financial considerations, such as exchanges, lease sales, or items that could have a substantial impact on a leasee.

7. Comment

The first agreement committing the Department to effect an exchange was signed by a representative of the company and the Secretary without any foreknowledge or discussion with CD personnel. About the same time, a letter was sent to the company committing the Department to procedures that were considered objectionable to CD. Subsequently, it was considered desirable to negotiate another agreement that contained procedures for consummating the exchange. UP&L prepared the first draft and submitted it to the responsible Department official. CD was placed in a posture of trying to negotiate changes in the agreement with short review times available for field personnel.

Recommended Action

It would be desirable in future exchanges for the Department to present exchange proponents with standard agreements of which CD approves. The DDC/Onshore should assure that field input is received on the technical aspects of the agreement, and any objections which he views as important should be brought to the attention of the Director and of A/S—E&M in writing.

8. Comment

Upon learning that there were some questions as to the amount of demonstrated reserves on the "offered lands," the Geologic Division was asked to review the determinations made by Conservation Division geologists. This review was done on the basis of 1450-B which the evaluation team feels did not adequately cover the questions being raised.

Recommended Action

Peer reviews of Conservation Division's resource evaluation work should be based on a Division guideline such as the one recommended under comment number 2.

9. Comment

As previously noted, the interpretation of "demonstrated reserves" as defined in Bulletin 1450-B was a major problem in processing the UP&L exchange. One view holds that arcs of a 3/4-mile radius should be turned around each drill hole containing coal, and the cumulative

areas bounded by these arcs are areas containing demonstrated reserves. Correlation of individual coal beds is not required. Another view maintains that a statistically averaging system for calculating reserves is not sufficiently precise for purposes of evaluating an exchange, PRLA, or sale tract. A determination of FMV is dependent on the ability to apply a specific and detailed mining plan to a given area. If the coal beds cannot be correlated, a specific mine plan cannot be prepared, costs cannot be determined, and the profitability of the mining venture cannot be established.

Recommended Action

Regardless of a final Geological Survey position on the definition of demonstrated reserves, the DDC/Onshore should make a policy decision and issue guidelines on whether a coal bed correlation is required for conducting economic evaluations for lease sales, PRLA's, and exchanges. This policy decision should require the revalidation of any PRLA's involved in land exchange proposals prior to any evaluation work. The results of this revalidation should be provided to those officials responsible for directing future work on any exchange proposal.

10. Comment

The Economic Evaluation Unit in Denver utilized the Department's Coal Resource Economic Evaluation Model (CREV) to determine the values for offered and selected lands. This model was developed early in the Division's Coal Resources Evaluation Program to determine the minimum acceptable bonus of tracts to be offered in competitive lease sales.

Recommended Action

The evaluation team believes that the DDC/Onshore should direct a review of the Coal Resource Economic Evaluation Model to determine its appropriateness for calculating a fair market value for exchange purposes. Special attention should be given to the economic parameters and assumptions that are utilized in the model. Some recent Secretarial decisions for determining fair market value tend to result in conservative tract values.

11. Comment

After the initial determinations were made as to the amount of demonstrated reserves of both the offered and selected lands, the other parameters for the economic model were determined and the model was run. The first run showed that the exchange could not occur. The parameters were adjusted to consider the cost of a railroad spur if the offered lands were to be mined. The price per ton on the offered and selected lands was also adjusted. A rerun of the model with the adjusted parameters showed that the exchange could take place. The adjustments provided an answer that would allow the exchange. Since

the desirability of completing the exchange had been determined before the facts of the situation were known, it would appear that the economic model was being used to obtain an answer that was already known. The considerations that made an answer possible prior to the running of the model should be used after objective results are obtained from the computer.

Recommended Action

The DDC/Offshore should issue a policy statement concerning the objectivity of an economic evaluation and further indicate that any changes in the variables affecting the results from positive to negative or negative to positive must be approved by the Deputy Division Chief. "Externalities" should only be considered in the context of the parameters contained in the model.

12. Comment

After the results of running the DCF Model were confirmed, a meeting was held with officials of UP&L. At this meeting, many of the model's details were discussed to the point that UP&L knows how CD arrives at an economic value. If this information becomes common knowledge, future coal lease sales evaluations could be compromised.

Recommended Action

The DDC/Onshore should, in the future, prohibit such detailed briefing sessions. Results of future land exchange evaluations should only be provided in writing in such a way as to insure the integrity of the DCF Model. Further, the DDC should explore changing the model to insure the integrity of coal lease sales evaluations.

14. Comment

Department officials asked CD to develop a preliminary evaluation of the exchange lands about 1 year prior to the date specified in the exchange agreement. The preliminary evaluation was to determine the acres of lands that would be in the exchange. Also, exchanges impact on the acres available for general lease sales. The specific terms of the exchange agreement were uncertain as they were still being negotiated with UP&L at the Department level. A major unknown at that time in the exchange assessment was how transportation costs would be allocated to the offered lands. Also, the coal resource data on the selected lands was incomplete and the GS drilling program was under way to gather additional information. Minimal resource data were available for the offered lands. Further, no mining plans were available to indicate the methods or equipment that would be used to produce coal from multiple seams in the offered lands.

Recommended Action

The DDC/Onshore should resist providing answers to evaluation questions until basic information is computed.

15. Comment

During the course of the UP&L exchange, five different Acting Regional Managers were in charge of the Central Region. Because of the nature of "Acting" assignments, some of the people assigned were not inclined to become very involved in processes that were occurring during their tenure. Since the Manager was changing so often, the field people were not confident of any continuity of decisionmaking, and therefore, did not communicate with the Acting Managers as they might have if the position had been filled by a single person.

Recommended Action

In the future, when key management positions are vacated and it is necessary to use personnel in an "Acting" capacity, a single individual should be used. This would establish the continuity necessary to continued management of important projects such as the UP&L exchange.

16. Comment

There is indication that the staff work associated with the UP&L exchange was not good. Channels of communication were either not kept intact or were never established. There appeared to be no appreciation of the problems or their implications. If the staff had carried out their responsibilities, the Division Chief would not have been surprised by the events of June 1980. If the staff functions effectively, superiors are informed and are able to make appropriate decisions and provide essential information when called upon. The Conservation Division was not effectively carrying out its requirements in the evaluation of proposed property exchanges.

Recommended Action

The Evaluation Team feels that the recent reorganization will help to solve many problems identified. A continued emphasis on staff meetings and the newly initiated ACTS report should help. Being alert to developing situations is sometimes a skill to be learned. Hopefully, the UP&L exchange has taught the Division a number of lessons.

R. Gale Wilson
R. Gale Wilson
Wright C. Sheldon
Wright C. Sheldon
James E. Fassett
James E. Fassett

COSTS INCURRED IN DRILLING
THE EXCHANGE LANDS

<u>Drill hole number</u>	<u>Cost</u>
1. MC-35-TC	\$31,477.98
2. MC-36-TC (note a)	9,093.00
3. MC-43-MP	23,023.66
4. MC-45-MP	27,252.47
5. MC-46-MP	28,926.87
6. MC-47-MP	42,135.52
7. MC-48-MP	13,213.38
8. MC-49-MP	20,043.11
9. MC-50-MP	13,588.96
10. MC-51-TC	15,272.96
11. MC-53-TC	51,027.17
12. MC-54-TC (note a)	12,056.77
13. MC-55-TC	15,586.75
14. MC-56-TC	14,412.00
15. MC-57-TC	46,575.39
16. MC-58-TC	15,396.90
17. MC-59-TC	22,131.53
18. MC-60-TC	69,094.20
19. MC-63-TC	16,279.67
20. MC-64-TC	<u>16,857.44</u>
Total 1979 drilling (note b)	<u>503,445.73</u>
21. MC-36-TC	45,064.00
22. MC-54-TC	99,920.24
23. MC-67-TC	159,192.52
Cost not allocated to 21 thru 23	<u>14,817.03</u>
Total 1980 drilling (note c)	<u>318,993.79</u>
Total drilling cost incurred	<u>\$822,439.52</u>

a/These holes were not successfully completed and had to be redrilled in 1980.

b/All 1979 drilling was done under contract to Utah Geological and Mineral Survey who subcontracted to four different drilling companies. Different rigs and techniques were used, and in general, different costs per foot were applicable. Also, in drilling some holes, drilling problems were encountered which necessitated redrilling the hole. (MC-36, MC-54 and MC-57.

c/Same qualification applies as in note b/. Drilling was done under contract with two drilling companies. Two holes, MC-54 and MC-67, had to be redrilled.



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

JUN 12 1981

Mr. J. Dexter Peach
Director, U.S. General
Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

The Department of the Interior has completed its review of the United States General Accounting Office (GAO) draft report, "A Case Study on How Not to Handle Federal Coal Lease Exchanges." While much of the discussion in this draft report has been mooted by the Secretary of the Interior's recent decision to reject the Utah Power and Light Company (UP&L) exchange authorized by the U.S. Congress in Public Law 95-554, several issues raised in the GAO critique merit response.

In general, we share your conclusions regarding the manner in which the UP&L exchange was managed by this Department. We are currently reviewing our procedures for valuing lands for exchange purposes with a view toward reducing administrative costs and becoming more responsive to resolving problems in approving exchanges that clearly are in the public interest.

Your report highlights the difficulties encountered when equal value exchanges are authorized or directed, but the intent in providing for the exchange is to prevent development in environmentally pristine or undeveloped areas. For this type of exchange, we know of no easy way to satisfy the equal value requirement under the Federal Land Policy and Management Act (FLPMA) other than placing a value on preventing development. In retrospect, this economic reality very probably doomed the UP&L exchange from the outset.

In preparing its final report, the GAO should revise the draft version to recognize the Secretary's decision to reject the exchange, as transmitted to UP&L in the enclosed letter. Criticism by the GAO of inclusion of the North Horn Mountain tract as part of the selected lands is no longer relevant since we have decided to offer this tract in a competitive lease sale scheduled for February 1982. UP&L's entitlement to a lease based on the validity of the company's preference right lease applications (PRLAs) on the Kaiparowits Plateau in southern Utah will be decided by December 31, 1981. We also suggest that pejorative implications in the draft report that the Department will approve the exchange, with disregard for the facts, be removed or clarified. These implications were inappropriate even prior to the Secretary's decision not to approve the exchange. Specific comments on the draft report follow:

1. Chapter 2, general: The entire contents of chapter 2, which argues against consummation of the UP&L exchange, should be stricken from the GAO report. Failing that, our specific comments obtain.
2. Page 9: The Solicitor's Office in the Department has determined that the two PRLAs are valid based on similar facts in a ruling by the U.S. District Court in Wyoming (enclosure). These two PRLAs will, therefore, be treated as properly filed and will be processed along with the other six UP&L PRLAs on the Kaiparowits Plateau.
3. Pages 10 to 13: The discussion under the heading "Inadequate coal data" correctly observes that UP&L's drilling information on the offered lands (Kaiparowits PRLAs) failed to conform to the Department's standards for an approvable mine plan. Coal bed correlations were indeed difficult, and additional drilling was proposed to improve the reliability of the reserve estimates. Short of a major new exploration effort, however, it was felt that for purposes of exchange, enough was known about the coal on the offered lands to develop a conceptual mine plan that could be used as the basis for an economic evaluation. Only reserves in the "demonstrated" category were considered using the definition in U.S. Geological Survey Bulletin 1450-B. For areas within the conceptual mine plan where demonstrated reserves could not be proven, but coal could reasonably be expected to exist in minable thicknesses, the Geological Survey (GS) gave no credit for tonnage, but did assume continuity of the seams. The results of the evaluation show beyond a reasonable doubt that the deposits on the offered lands have no net present value for exchange. The GAO correctly notes, however, that the commercial quantities test to be performed on the PRLAs later this year could result in the granting of preference right leases to UP&L.
4. Pages 12 and 13: The GAO's criticism of the assumptions used in the evaluation of the offered lands concerning transportation and marketing of the coal fails to take into account the fact that UP&L and the Department bargained over and mutually agreed to these terms in the joint agreement of July 1979. At that time, the Union Pacific had filed a right-of-way request to extend railroad lines into the Kaiparowits Plateau. In signing the agreement, UP&L agreed to the scenario of shipping the Kaiparowits coal to the Intermountain Power Plant (IPP) in central Utah, although other reasonable scenarios could also have been used. As for the amount of coal from the offered lands dedicated to IPP, this point is irrelevant considering the tremendous growth in demand for Utah coal projected over the next 10 years, as the GAO itself acknowledges on page 23 of the draft report.
5. Pages 14 to 16: The discussion concerning the North Horn Mountain tract is unnecessary in light of the decision to reject the exchange and offer this tract for competitive lease in 1982.

[See GAO note, p. 53.]

6. Pages 20 to 23: In determining that the offered lands have no net present value for exchange purposes, the GS performed the necessary analysis to ensure that minor changes in one or more input variables to the discounted cash flow analysis did not substantially alter the overall results of the evaluation. Within acceptable confidence limits, the offered lands have no net present value.
7. Pages 24 to 26: While it certainly would have been preferable for UP&L to undertake the drilling program on the selected lands, the GAO should also realize that drilling by the Department could have been necessary for the tracts to be leased competitively had there been no exchange proposal.
8. Pages 27 to 29: For the points summarized in Chapter 4 - Conclusions and Recommendations, our earlier comments apply. In addition, the Department is currently examining management techniques and exchange procedures to reduce administrative costs by relying more heavily on market transactions, using bidding rights whenever possible, and continually reviewing and updating its discounted cash flow methodology to keep current within the state-of-the-art.
9. Pages 23-24: A revision of USGS Bulletin 1450-B is underway. In the interim, separate guidelines are being developed to be used in calculating demonstrated reserves for purposes of processing preference right lease applications.
10. (Deleted): The GAO's proposal to award UP&L a certificate of bidding rights equal to the company's actual cash investment--plus interest--in the PRLAs cannot be accomplished under existing law. The statutory authority to do so is limited to rights on the Northern Cheyenne Indian Reservation. Under 43 CFR 3435 of the Federal coal management regulations, the Secretary of the Interior is, however, authorized to accept the relinquishment of any coal lease (or PRLA that has passed the commercial quantities test) in exchange for the issuance of bidding rights equal to the estimated fair market value of the lease or lease applications to be relinquished. As explained in the letter to UP&L setting forth the Secretary's decision on the exchange, UP&L may apply for bidding rights if, and when, its PRLAs have been demonstrated to contain commercial quantities of coal.

Conclusion

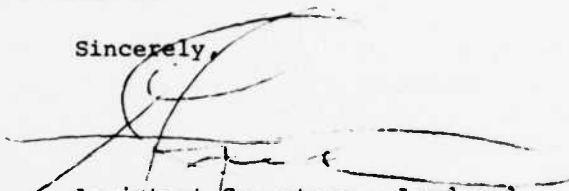
The UP&L exchange has proven to be a difficult and controversial issue for the Department over the past 2 years. While we cannot take issue with the GAO's contention that the exchange was poorly managed under the previous Administration, we feel the Secretary's recent decision to reject the exchange, based on the facts, answers most of the fundamental questions raised in the draft GAO report. The final GAO report on the

4

UP&L exchange should acknowledge this decision by eliminating much--if not all--of the discussion in Chapter 2 and substantially revising Chapters 3 and 4.

Thank you for the opportunity to comment.

Sincerely,



Assistant Secretary - Land and
Water Resources

Enclosures

GAO note: Page numbers have been changed to reflect their position in this final report.



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

JUN 12 1981

Mr. Harry Blundell
President, Utah Power and
Light Company
1407 West North Temple Street
P.O. Box 899
Salt Lake City, Utah 84110

Dear Mr. Blundell:

This letter transmits my decision on the proposed exchange of Utah Power and Light Company's (UP&L) preference right lease applications (PRLA's) on the Kaiparowits Plateau in southern Utah for Federal coal leases elsewhere in Utah, as authorized by the United States Congress in Public Law 95-554. The Department of the Interior and your company have worked on this exchange for more than 2 years now. This issue is ripe for decision, and any further delay can only undermine your very real needs to bring into production coal for UP&L's power plants in the 1980's.

I regret to inform you of my decision to reject the exchange. Based on the July 1979 agreement among the Department of the Interior, UP&L, and the United States Forest Service, there is no justification for an exchange. The Department, through the U.S. Geological Survey, has conducted detailed coal resource economic evaluations of the Kaiparowits PRLA's (offered lands) and the central Utah tracts (selected lands) using the procedures specified in that agreement. These evaluations showed that under the agreement, the offered lands have no commercial value for exchange purposes.

Regardless of my decision that there is no basis for an exchange, I do recognize UP&L's needs for coal from the selected lands. To help meet those needs, I have also made the following decisions.

First, two of the tracts delineated from the selected lands--Cottonwood and Meetinghouse Canyon--will be offered for competitive sale at the initial Federal lease sale for the Uinta-Southwestern Utah region, to be held in Salt Lake City in late July 1981. I encourage you to participate in the auction for these tracts. North Horn Mountain, the third tract in the selected lands, will be competitively offered in February of 1982.

Secondly, I have directed the appropriate Departmental agencies to review and act expeditiously upon the Kaiparowits PRLA's to perform the necessary commercial quantities determination that would, if favorable, result in issuance of preference right leases. The economic evaluations performed under the exchange agreement have no bearing on the commercial

quantities test that will be applied in the coming months. The Department will be prepared to make the decision on lease issuance before the December 31, 1981, expiration date of the 1979 agreement between the Department and UP&L.

Thirdly, if the PRLA's pass the commercial quantities test and preference right leases are awarded to UP&L, I have the authority under 43 CFR 3435 to issue, in exchange, coal lease bidding rights equal to the estimated fair market value, if any, of these leases. UP&L could apply for, and utilize, bidding rights to offset bonus or deferred bonus payments on any Federal lease tract, including Cottonwood or Meetinghouse Canyon. Alternatively, UP&L may wish to develop the newly issued preference right leases as a source of coal to meet UP&L's boiler fuel requirements.

I acknowledge the right of UP&L, under the 1979 agreement, to institute an action seeking a writ of mandamus in the District Court for the District of Utah for the issuance of leases for lands covered by the PRLA's, and the Department's legal obligation to join with UP&L to have the matter heard on an expedited hearing schedule. I hope you share my opinion that pursuit by UP&L of this course of action is unnecessary in light of the Department's commitment to complete processing of the PRLA's before the end of this year and within the term of the 1979 agreement.

Sincerely,



Under SECRETARY



APPENDIX IV

United States Department of the Interior

APPENDIX IV

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

JUN 22 1981

Memorandum

To: Assistant Secretary, Land and Water Resources

From: ^{Under} Secretary

Subject: Decision on the Uinta-Southwestern Utah Coal Lease Sale

After careful consideration of the recommendations of the Assistant Secretaries, the Bureau Directors, the Governors and the Regional Coal Team, I have made my decision on the proposed coal lease sale in the Uinta-Southwestern Utah Coal Region. Ten tracts are to be offered in two sales, with one of these tracts being offered for small business competition.

The North Horn Mountain, Tucker Canyon, Rilda Canyon, Gordon Creek, Miller Creek, Cottonwood and Meetinghouse Canyon tracts - all recommended by the Regional Coal Team - appear to have sufficient interest to be successfully offered. In keeping with our policy to allow market forces to determine the level of resource development, the Emery North, Emery Central and Emery South tracts should also be offered. If a company is willing to commit its financial resources to the more expensive reclamation that Emery Central and Emery North may require after mining, it should be allowed the opportunity to develop the coal resources. I do not believe that the low resource recovery rate and the associated environmental problems justify offering the Slaughterhouse Canyon tract at this time.

The Tucker Canyon tract is to be offered in the July 1981 sale for small business competition. The Gordon Creek, Miller Creek, Cottonwood and Meetinghouse Canyon tracts are to be offered at the same time for open competition. A second sale in February 1982 is to include the Emery North, Emery Central and Emery South tracts at a minimum. In addition, the Rilda Canyon and North Horn Mountain tracts are to be included in that sale if required studies (hydrology and drilling) can be timely completed and Forest Service gives its consent to lease. If more time is required to complete these actions, then these two tracts are to be offered as soon as possible after February 1982.

These tracts contain reserves that, when mined, will add an average of 6.3 million tons of coal to annual coal production in the Uinta-Southwestern Utah Region. Coal output from these new Federal leases will contribute materially to meeting our Nation's energy needs and lessening dependence on imported oil.

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general, different costs per foot were applicable. Also, in drilling some holes, drilling problems were encountered which necessitated redrilling the hole. (MC-36, MC-54 and MC-57.

c/Same qualification applies as in note b/. Drilling was done under contract with two drilling companies. Two holes, MC-54 and MC-67, had to be redrilled.