United States General Accounting Office

GAO

Report to Congressional Requesters

February 1990

FEDERAL ELECTRIC POWER

Views on the Sale of Alaska Power Administration Hydropower Assets

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Resources, Community, and
Economic Development Division

B-238296

February 22, 1990

The Honorable Mike Synar
Chairman, Environment, Energy
and Natural Resources Subcommittee
Committee on Government Operations
House of Representatives

The Honorable George Miller
Chairman, Subcommittee on
Water, Power and Offshore
Energy Resources
Committee on Interior and
Insular Affairs
House of Representatives

As requested by your offices in January 1989, we updated our earlier work that examined the federal government's efforts to sell the assets of the Alaska Power Administration (APA). Specifically, we evaluated the prospective sale to determine the extent to which concerns raised in our March 1987 letter to the Secretary of Energy (see app. I) were considered by the Department of Energy (DOE) in arriving at its current sale proposal. Our primary concern at that time was that APA's planned divestiture approach would likely lead to a proposed sale at a price that would not (1) provide for full cost recovery for the government or (2) reflect the full potential value of the assets to a purchaser. We, therefore, believed such a sale would benefit APA ratepayers at the expense of taxpayers.

Results in Brief

APA's current sale proposal does not address our earlier concerns. Sales agreements have been reached between APA and potential purchasers of APA's assets—the Eklutna and the Snettisham hydroelectric power projects. The sales agreements provide for selling prices that approximate APA's previously established minimum acceptable bid of the present value of the principal and interest due the Treasury over the life of the loan. The sales agreements also provide that the federal government (1) ensure that existing rights-of-way for the projects' transmission facilities be transferred to the purchasers and (2) bear any construction cost over-runs related to the nearly completed Crater Lake portion of the Snettisham project.

Sales Agreements Have Been Reached

In our 1987 letter, we expressed our concern that APA's approach to the sale would likely lead to a limited number of offers to purchase the assets and that potential purchasers would likely offer a purchase price representing APA's announced minimum acceptable bid. This has proven to be an accurate assessment of the situation.

APA proceeded with its planned divestiture approach and solicited bids as it had originally proposed at the time of our earlier work. Bids were solicited for Snettisham on April 1, 1987, and for Eklutna on May 20, 1987. In the solicitations, APA limited eligible bidders to (1) electric utilities who are currently purchasing power from APA, (2) local municipalities, (3) the state of Alaska, or (4) a combination of these entities. We were told by the APA Administrator that other parties expressed interest in bidding for the projects but were told they were not eligible bidders. As a result of the limitation on bidders, it is unlikely that bids actually received represent the fair market value of APA assets.

APA received only one bid for each project. It then negotiated with each potential purchaser to arrive at a final sales agreement for each project. These agreements provide for selling prices approximating the minimum acceptable bid criteria specified in APA's request for proposals. These criteria provided that the sale price be not less than the present value[1] of future principal and interest payments that the Treasury would have received under continued federal ownership (present value pricing method). The sales agreements will be finalized with congressional approval.

A brief discussion of the two sales agreements follows. A description of the projects and background information on APA's efforts to sell the federal power marketing administrations is contained in appendix II. Details of each sales agreement are contained in appendix III.

Eklutna Project

The Eklutna project provides about 5 percent of the power for the Anchorage-Matanuska Valley area. Its single power plant, which began operation in 1955, produces 30,000 kilowatts of power.

A sales agreement for the project has been reached between the APA Administrator and three publicly owned utilities that currently buy

[1]Present value is today's value of a sum payable at a later date or of a stream of income receivable at a future date. Because a dollar in hand today can be invested to earn interest, it is worth more than a dollar at some time in the future.

Eklutna's power. These three utilities—the Chugach Electric Association, Inc.; the Mantanuska Electric Association, Inc.; and the Anchorage Municipal Light and Power Company—had submitted a joint offer to purchase the project. The agreed-upon selling price will be the present value of the remaining federal investment and interest payments discounted at a 9-percent rate, plus an additional $1 million. An October 1, 1989, sale transaction date would have resulted in a sale price of about $10,435,000. The Eklutna agreement further provides that APA will be responsible for transferring project transmission line rights-of-way to the purchasers.

Snettisham Project

The Snettisham project serves the Juneau, Alaska, area. It currently provides 70 to 80 percent of Juneau's power from the Long Lake unit of the project. Long Lake began full commercial operation in 1975 and produces 47,160 kilowatts of power. The second portion of the Snettisham project, Crater Lake, is currently under construction. This unit should be fully operational in 1991, adding 31,000 kilowatts of power. It is anticipated that the additional power will supply the projected increasing power needs of the area.

A sales agreement has been reached through the APA Administrator's negotiations with the Alaska Energy Authority, an Alaska state agency. The agreement provides that the selling price will be determined by the present value of the remaining federal investment and interest payments due when the sale is finalized. Unlike the Eklutna agreement, however, the Snettisham agreement contains two alternative methods of computing the discount rate (and ultimately, the price). The agreement specifies that the method providing the higher sales price be used.

The first method sets the price at the present value of remaining principal and interest using a discount rate equal to 2 percent above the state's bond rate (that is, its financing costs). The second formula, which will guarantee some protection for the federal government by setting a "floor" in the pricing method, sets the sales price at 85 percent of the present value of principal and interest payments using the long-term Treasury rate to discount the future payments. Even though the exact purchase price for Snettisham cannot be determined in advance, the APA Administrator believes that the price will fall between 85 percent and 90 percent of the present value of the remaining principal and interest payments discounted at the 30-year Treasury rate.

Finally, according to the Snettisham agreement, the federal government will be responsible for all costs associated with completing construction on the Crater Lake portion of the project that exceed APA's April 1988 estimate of total costs.

APA's Selling Price Minimizes Potential Rate Impact on Ratepayers but Limits Taxpayers' Recovery

In our March 1987 letter, we said that APA's present value method for determining its minimum acceptable bid provided only minimal protection for taxpayers. The currently agreed-upon formula for determining the selling price for APA's projects closely approximate or may, in the case of Snettisham, be less than APA's previously established minimal acceptable bids. While the selling prices will, in the APA Administrator's view, facilitate accomplishing the sale and should have minimal impact on current APA ratepayers, the selling prices, in our view, are unlikely to reflect the fair market value of the projects and will not recover all federal costs associated with the projects.

Market Approach for Valuing Assets Not Used

In March 30 and April 10, 1987, letters, DOE and the Administrator, APA, respectively, responded to our March letter. DOE stated that it was essential that the sale be structured to avoid significant rate increases and that approximating the discounted present value of future payments for the repayment of the federal investment was necessary to avoid large rate increases. The APA Administrator reiterated DOE's view and stated that the alternative pricing methods suggested by our March letter would involve higher returns to the government than available under existing law. In light of these views, the Administrator proceeded with the sale process.

We believe that the federal government should receive fair market value when selling government assets. Receiving fair market value is important both to protect the government's fiscal interests and to promote economic efficiency. We recognize, however, that in particular cases there could be other issues that make a market valuation approach for an asset sale less compelling. A key issue in this case is whether receiving a fair market value for APA assets would lead to significant rate impacts on Alaskan consumers and on the local economies, particularly in the Juneau area.

Since a market valuation of APA assets has not been performed, it is unclear what a sale price representing market value would be and thus how it would impact on Alaskan ratepayers. We would expect, however, that power rates in Juneau would be sensitive to the price for Snettisham because power produced by Snettisham represents the majority of power sold in the Juneau area. On the other hand, we would not expect power rates in Anchorage to be as sensitive to the price for Eklutna because its contribution to the Anchorage area's power supply is rather small. In fact, according to the APA Administrator, a selling price for Eklutna at double or more the currently agreed-upon selling price would not be expected to have a significant impact on power rates.

According to the Administrator, APA, a market valuation of APA assets was not done because such an evaluation, in the Administrator's view, was precluded by Sec. 506 of Public Law 98-360 (Energy and Water Development Appropriation Act, 1985). Under Sec. 506, the administration was prohibited from conducting any studies related or leading to the possibility of changing from a cost-based to a market-based rate for the pricing of hydroelectric power marketed by the power marketing administrations or the Tennessee Valley Authority (TVA).

Sec. 506 prohibits the administration from examining alternative, non-cost based methods for pricing power marketed by the power marketing administrations and TVA. We do not concur with the APA Administrator's view that this provision prohibits examining market values for federal assets that are being considered for sale. Thus, in our view, this provision would not prohibit a market-based valuation of APA hydroelectric power assets even though such an analysis requires an evaluation of power rates that are not cost based.

Although a market valuation of APA assets was not performed, in 1986 a study prepared by APA consultants, Coopers and Lybrand, estimated APA assets using various alternative valuation methods, including replacement costs.[2] Their valuation estimates ranged from $81.8 million (representing the present value of future principle and interest payments) to $319.5 million (replacement cost new less depreciation) and offer, in our view, some perspective on other values, which could be associated with APA assets. Replacement cost normally represents an upper limit of the market value of an asset.

[2]Replacement cost is the cost of replacing the undepreciated portion of an asset with another asset that will provide a similar function but with the most economic current technology.

APA's Sale Price Limits Taxpayers' Cost Recovery

In our 1987 letter, we said that APA's present value pricing method provided only minimal protection for taxpayers. We noted, in particular, that this value (1) assumed no residual value[3] for the assets even though the hydropower projects would have a continued service life for many years following the federally scheduled repayment period and (2) did not consider that actual federal costs would not be completely recovered under current repayment practices by power marketing administrations. Since federal power project interest rates are often below the Treasury's actual borrowing rates, interest paid to the Treasury under current repayment practices generally does not fully recover the Treasury's actual interest costs.

The present value pricing method, as applied by APA in determining project selling prices, does not recognize that Treasury interest costs would not fully be recovered in future years through current repayment practices. To illustrate this in regard to the Long Lake and Crater Lake portions of the Snettisham project, we calculated the present value of future payments that would be owed to the Treasury if project interest rates reflected long-term Treasury borrowing rates at the time the projects were placed in operation. Our calculations showed that, for Snettisham, the present value of the principle and interest if interest were accrued at nonsubsidized rates (equal to long-term Treasury rates when the projects were placed online) would be approximately $73.6 million greater than the present value of the scheduled repayment stream. Our assumptions and methodology are discussed in greater detail in app. IV.

Unresolved Sale Issues May Reduce Net Proceeds

Uncertainty over the cost associated with two issues may reduce the proceeds the federal government will receive from selling APA's assets. First, as discussed previously, APA has the responsibility under the Eklutna sales agreement to ensure the purchaser rights-of-way for Eklutna's transmission lines that cross nongovernment land. Second, some uncertainty exists about the final cost of constructing the Crater Lake unit of Snettisham. According to the Snettisham sales agreement, APA will bear all Crater Lake construction costs that exceed APA's April 1988 project cost estimate. While APA took, in our view, reasonable steps to estimate the final Crater Lake costs, an October 1989 cost estimate shows that Crater Lake will cost about $5.8 million more than was provided for in the April 1988 Snettisham sales agreement.

[3]Residual value is the remaining market value that assets will have at the end of the repayment period.

Rights-Of-Way for Transmission Lines

The Eklutna project contains about 45 miles of transmission lines from the powerhouse to customers in the Anchorage-Matanuska Valley area (see app. V). These lines cross federal and state lands, as well as land owned by private parties and by Eklutna, Inc., a corporation of Alaskan Native Americans. As part of the Eklutna sales agreement, APA has agreed to assume responsibility for ensuring that the purchaser obtains all rights-of-way for these lines at no cost. While APA plans to transfer its rights-of-way across federal land at no cost to the purchasers, it cannot transfer its existing rights-of-way across private and Native American lands to the purchaser. Thus, assuring the purchaser such rights-of-way may involve additional—and as yet unknown—costs.

The APA Administrator believes that reaching agreement with land owners on rights-of-way is manageable and can be accomplished at minimal or no cost. The Administrator told us that the private landowners and Eklutna, Inc. will find it in their best interests to assign the rights-of-way to the purchasers. APA has made no estimate of any costs that might be involved if this does not occur.

We believe obtaining transmission line rights-of-way for the Eklutna purchasers could potentially result in costs being borne by APA in completing the sale. Given that rights-of-way agreements had not been reached as of late September 1989, we believe it's uncertain whether the Administrator will be able to resolve the rights-of-way issue at no further cost to the government. Should the rights-of-way issue be unresolved at the time APA submits the sale agreements for congressional approval, we expect, based on conversations with DOE officials, that APA will include in its sales agreement package a detailed description of this issue including the administration's plans for resolving it.

Costs to Complete Crater Lake

The Snettisham purchase agreement states that all costs associated with preparing the Snettisham assets for conveyance to the Alaska Energy Authority, including any costs that exceed APA's April 1988 construction cost estimate, shall be the responsibility of the federal government. The agreement includes APA's April 1988 estimate of projected final costs.

As of November 1989, construction was still underway at the Crater Lake unit. In October 1989, the APA Administrator was provided with a revised construction estimate. The revised estimate indicated that the cost to construct Crater Lake would be about $5.8 million more than provided for in the sales agreement and thus would not be recovered in the project sales price. As with right-of-way matters, we anticipate that any additional cost stemming from this situation will be identified by APA at the time the sales agreements are provided to the Congress for its approval.

Conclusions

Establishing a selling price for APA assets necessarily involves a tradeoff between ratepayers' and taxpayers' interests. Based on our current review of the proposed sale of APA's hydropower projects, we continue to believe that the sales agreements that have been reached benefit APA ratepayers at the expense of taxpayers and thus do not balance the interests of both groups. Current APA ratepayers are expected to experience a minimal initial rate impact from the proposed sale and, according to APA, will likely experience a decrease in rates below what would have occurred under continued federal ownership after about 10 years. On the other hand, while the agreed-upon selling prices generally provide an amount of revenue to the Treasury equivalent to that which would have been received under continued federal ownership and under APA scheduled repayment of the federal investment with interest, these prices do not include the recovery of all federal costs associated with the projects. In addition, they do not reflect the fair market value of these assets. In a sense, the proposed selling price represents a situation similar to a homeowner selling a house for the present value of the future scheduled mortgage payments while foregoing the value of the owner's equity.

Beyond our concern about how the selling prices have been determined, our recent review also found that some additional costs will be incurred by the federal government in accomplishing the sale. Based on the recent construction cost estimate for Snettisham project's Crater Lake unit, the federal government will not recover about $5.8 million of the unit's cost in the agreed-upon selling price. In addition, some costs to the federal government in transferring the transmission line rights-of-way for the Eklutna project may be incurred.

Matter for Congressional Consideration

If the Congress wishes to pursue the divestiture of APA assets and believes the sale of APA assets should be accomplished through a balancing of ratepayers' and taxpayers' interests, it should reject the administration's proposal and direct DOE to identify sales proposals that better balance ratepayers' and taxpayers' interests.

In completing this review, we held discussions with APA officials and reviewed various documents and reports related to the proposed sale, including the negotiated purchase agreements. We also interviewed representatives of various utilities and governmental entities in the state of Alaska. We performed our field work from March to September 1989 in accordance with generally accepted government auditing standards. Appendix VI provides our objectives, scope, and methodology.

As you requested, we did not obtain official agency comments on a draft of this report. As arranged with your offices, we will make no further distribution of this report until 30 days from the date of this letter, unless you release its contents earlier. At that time, we will send copies to the Secretary of Energy; the Director, Office of Management and Budget; and other interested parties. Copies will also be provided to others upon request.

This work was performed under the direction of Victor S. Rezendes, Director, Energy Issues (202) 275-1441. Other major contributors are listed in appendix VII.

J. Dexter Peach
Assistant Comptroller General

Contents

Abbreviations

APA	Alaska Power Administration
DOE	Department of Energy
GAO	General Accounting Office
PMA	power marketing administration
RCED	Resources, Community, and Economic Development Division
TVA	Tennessee Valley Authority

GAO's March 1987 Letter to the Secretary, Department of Energy

GAO

United States
General Accounting Office
Washington, D.C. 20548

March 23, 1987

The Honorable John S. Herrington,
The Secretary of Energy

Dear Mr. Secretary:

At the request of the Chairman of the Subcommittee on Environment, Energy, and Natural Resources, House Committee on Government Operations, we are reviewing the Department's efforts to sell the Alaska Power Administration's (APA's) assets. Because the proposed sale of APA assets may set important precedents for divesting the other four power marketing administrations (PMAs), a goal of the current Administration, our review is focusing on several factors which may be important to Congressional approval of the proposed sale. These factors include (1) the justification and timing of the sale; (2) information made available to and involvement opportunities for the affected parties, especially the Congress and Alaskan ratepayers; (3) protection of the economic interests of U.S. taxpayers; and (4) APA's assessment of the economic, social, and environmental impacts of the sale on the Alaskan communities served by APA.

On April 1, 1987, the APA Administrator plans to issue a request for proposals (RFP) for purchase of APA's assets. Although we have not completed our review, we would like to share with you some concerns we have about the sale process so that you can consider them before an RFP is issued. These concerns involve matters which, if not clarified, could hinder the APA sale as well as the overall Administration goal of divesting all PMAs.

Our primary concern is that APA's planned divestiture approach appears to give greater emphasis to protecting current APA ratepayers rather than balancing ratepayers' and taxpayers' interests. Specifically, the current plan to initially limit eligible bidders to several entities within Alaska could result in few bids being received and a low sale price. Further, APA's approach for establishing a minimum acceptable bid, in our view, does not appear to consider the full potential value of APA assets to a purchaser, nor does it reflect all costs incurred by the government in constructing APA facilities. In addition, we noted several other matters which we believe merit your consideration before an RFP is issued.

In our work to date, we have held discussions with APA officials and with representatives of various utilities and governmental entities in the State of Alaska. We have also reviewed various APA documents and reports leading up to the revised work plan of January 14, 1987, which reflects APA's current strategy for pursuing the divestiture.

BACKGROUND

APA produces and markets electric power generated by two widely separated hydroelectric facilities in the State of Alaska. Its Eklutna project was completed in 1955 and provides the Anchorage-Palmer area with about 5 percent of its electrical needs. The Snettisham project serves the Juneau area and is presently being expanded. The facilities constructed in the initial phase (Long Lake) began operations in 1973 and provide about 70 percent of Juneau's electrical needs. A second construction phase (Crater Lake) is under way and should be completed in 1988. This will add 59 percent more firm energy to the Snettisham powerplant's annual production, although demand for that added power is unlikely to develop for several years, according to APA.

APA is required by law, as are all PMAs, to recoup through its power rates sufficient revenues to pay all operation and maintenance costs as well as to repay, with interest, the federal investment required to construct its facilities. After considering estimated costs to complete the second phase of Snettisham, APA estimates that as of October 1, 1988, about $162 million in federal investment will remain to be paid to the Treasury on APA's two projects.

The Administration originally proposed the divestiture of APA in its fiscal year 1986 budget. Since that time, several studies have been completed on the proposed sale, including a joint study by the State of Alaska and APA on potential divestiture issues, and two studies by the firm of Coopers & Lybrand on the value of APA assets and on alternative ways to structure the sale. According to APA's revised work plan, APA will issue an RFP on April 1, 1987. After completing a bid selection/negotiation process, APA plans to submit a sale proposal to the Congress by February 1988.

APA's work plan specifies that the primary goal of the divestiture is to close out all federal responsibilities of APA. As key objectives, the work plan states that the sale should (1) achieve a fair return to the U.S. taxpayer and (2) avoid unacceptable impacts on the economy of the region. As a guideline for carrying out the divestiture process, the work plan specifies that the sale will be pursued in an open, competitive manner involving all interested and affected parties. As noted by APA, the divestiture objectives involve a balancing of interests, particularly between Alaskan ratepayers in seeking to avoid power rate increases and the government in trying to obtain a fair price for its assets.

COMPETITION IN BIDDING IS BEING LIMITED

APA's current divestiture work plan states that competition in bidding may be important to help assure that the federal government receives a fair price. Although the concept of a competitive bidding process has been retained as a sale guideline, the work plan concludes that a fair price can be achieved without having a fully competitive bidding process. The work plan calls for limiting the initial bidders to (1) electric utilities now served by the projects, (2) municipalities in the projects' service areas, (3) the State of Alaska, or (4) some combination of these entities. According to the APA Administrator, the decision to limit bidding was made, in part, to help assure Alaskan support for the proposed sale. Comments from Alaskan entities on an earlier APA work plan had opposed divestiture to non-Alaskan interests or to purchasers other than the existing customer utilities, municipalities, and/or the state.

Although there is interest by Alaskan entities in purchasing APA's assets, factors such as the lack of potential bidders with adequate financial resources and experience in hydroelectric operations, as well as weakness in the local economy, could limit the number of bids actually received to a very few. In the administrator's view, there is likely to be one bid for the Snettisham project and one or two bids for the Eklutna project.

We are concerned that the initial limitation on those eligible to bid and the expected results may work against taxpayer interests. In our view, limiting competition to Alaskan entities increases the likelihood that actual bids received may approximate APA's minimum acceptable bid since there would be little incentive for a bidder to offer more. APA plans to broaden the competition only if initial bidders are unsuccessful in meeting APA's acceptable bid criteria. Furthermore, limiting qualified bidders to Alaskan entities would preclude an opportunity to consider potentially beneficial proposals from non-Alaskan entities. For example, Coopers & Lybrand concluded that the APA projects offer some interesting investment opportunities for investor-owned utilities (IOUs); however, they stated that an IOU purchase would increase power rates. While we recognize that support for the sale from Alaskan entities is important, we note that APA's criteria for selecting among proposals received contain many elements designed to assure that Alaskan interests are protected. We therefore question whether it is appropriate under these circumstances to preclude, in the initial RFP, an opportunity for any interested party to submit a purchase proposal which could, potentially, best meet the sale objectives. In addition, the limited bidding approach seems to us to be inconsistent with APA's commitment to provide for an "open, competitive process involving all interested and affected parties."

APA'S MINIMUM ACCEPTABLE BID MAY ONLY MINIMALLY PROTECT TAXPAYERS

APA has proposed that a minimum acceptable bid for APA facilities would be the present value of the future principal and interest payments APA would make to the Treasury if the projects remained under federal ownership (present-value method). This valuation method was one of several used by Coopers & Lybrand to estimate the value of APA's assets. Applying the present-value method, Coopers & Lybrand calculated a value of $89.3 million for APA assets when using a discount rate of 7.6 percent. As shown in the table below, other valuation methods resulted in estimated values up to a high of $319.5 million.

Table 1: Summary of APA Asset Values and Methods Developed By Coopers & Lybrand (In Millions)[a]

Valuation Method	Eklutna	Snettisham	Total
Replacement Cost	$98.0	$221.5	$319.5
Reproduction Cost[b]	97.9	184.7	282.6
Unpaid Debt Balance	14.7	146.9	161.6
Net Book Value	23.1	120.6	143.7
Present Value of Principal and Interest Payments	12.0	77.3	89.3

Notes: [a] Estimates projected for October 1, 1988.
[b] Estimates are net of depreciation. Replacement cost refers to the cost to construct comparable facilities. Reproduction cost refers to the cost to reconstruct APA's facilities exactly as they now exist.

We note that the discount rate is a key component in calculating the value of APA's assets using the present-value method. While the Coopers & Lybrand asset valuation study used a discount rate of 7.6 percent, APA has not disclosed in its work plan the discount rate it will use or how the rate will be determined when computing the actual value of its minimum acceptable bid. Because changes in the rate can produce large differences in the minimum acceptable bid computation, we believe this matter should be clarified prior to issuing a final RFP.

APA's work plan provides for using the present-value method for establishing a minimum acceptable bid because it would (1) enable the purchaser to maintain rates at the same relative level as under federal ownership and (2) keep the Treasury "whole" in the sense that the proceeds would be equivalent to those that would be realized under continued federal ownership.

Establishing APA's minimum acceptable bid based on the present-value method could set an important precedent for other planned PMA sales. Although we take no position on whether this method should be used, we believe that policymakers need to carefully consider the implications of using this method. In our view, setting a minimum acceptable bid for APA based on the present-value method provides only minimal protection for U.S. taxpayers since this method (1) assumes that the hydropower projects would have no residual value at the point in time the federal investment would have been repaid by APA even though both projects are projected to have a continued service life, (2) does not consider the increase in the value of APA assets which would result from the administration's proposed PMA repayment reforms, (3) does not consider the less-than-full recovery of federal costs which results from current PMA repayment practices, and (4) produces the lowest value for APA's assets.

Minimum acceptable bid assumes no residual value in APA assets

APA's present-value approach will assign a value only to the remaining principal and interest payments APA would make to the Treasury, thus assuming the projects have no residual value when the federal investment has been repaid. Applying this valuation method to a project that was completely paid for would produce an asset value of zero regardless of the project's remaining useful life. It is reasonable, in our view, to assume that APA's hydropower projects have residual value to a purchaser so long as the facilities have a remaining useful life beyond the period required to repay the federal investment.

According to Coopers & Lybrand's asset valuation report, the Eklutna and Snettisham (Long Lake) facilities have useful service lives of 87 years and 75 years, respectively. Because these service lives are considerably longer than the periods in which the federal investment is to be repaid (50 years and 60 years, respectively), it appears that the projects could have considerable residual value to a purchaser. APA's work plan does not explain why the remaining service lives of these projects are assumed to have no value.

Increased value from repayment reforms has not been considered

The approach APA will use to establish a minimum acceptable bid does not consider the impact of the administration's PMA repayment reform proposal discussed in its fiscal year 1988 budget. This repayment reform is expected to be presented for congressional consideration later this year and is planned for implementation in 1989. As we understand the proposal, the repayment reform would require PMAs to make equal annual principal payments on the federal investment for each of their projects rather than simply requiring the principal be repaid by the end of the repayment period as is currently the practice. Implementing the proposal would generally have the effect of accelerating retirement of the federal investment.

In our view, the impacts of the repayment reform proposal should be given consideration when establishing the minimum acceptable bid for APA assets because this minimum is to reflect payments the government would have received under continued federal ownership. Applying the repayment reform to the federal investment in APA would increase the present value of that investment. According to calculations made for us by Coopers & Lybrand, the $89.3 million estimate of present value of the remaining federal investment would be increased by $4.3 million if this repayment reform was considered--only the Snettisham project would be affected by this repayment reform. From the taxpayers' perspective, it can be argued that the minimum acceptable bid should reflect consideration for this increased value.

The full federal cost for APA may not be recovered

APA's minimum acceptable bid calculation approach may not reflect the full amount of the federal investment in APA facilities because costs to the government are generally not fully accounted for in determining the federal investment in PMA projects. In the case of APA facilities, for example, Coopers & Lybrand estimated that the Treasury's long-term borrowing rate was 7.6 percent in October 1986. APA's administrator told us, however, that interest charged during the current construction of the Crater Lake phase of the Snettisham project and the interest to be charged on this investment over the 50-year life of this project would be based on the 3 percent interest rate applicable to the original 1962 authorizing legislation for Snettisham.

In a September 1986 report, we examined alternatives for PMA pricing of power produced at federal water projects.[1] Our work showed that while PMAs' methods of determining the cost of federal power were generally consistent with existing laws and policies, the federal investment on many projects may not be fully recovered. More specifically, (1) practices for computing interest expense for PMA projects during construction have resulted in understatement of project costs (the federal investment) and (2) interest costs associated with borrowing from the Treasury have been based on interest rates below the Treasury's borrowing rates. Overall, these practices have the effect of understating the full cost of the government's investment in federal hydropower projects.

As discussed above, we believe our past findings on undervaluation and underrecovery of federal investments in PMAs are applicable to APA. According to the APA Administrator, APA has no plans to determine the full cost of the federal investment in APA's projects or the extent its minimum acceptable bid would fail to recover these costs.

Present-value method results in the lowest value for APA

As shown in Table 1, the present-value approach results in a significantly lower value for APA's assets than do the other valuation methods used by Coopers & Lybrand. For example, the $89.3 million present value of APA's future debt payments to the Treasury is about (1) 38 percent or $54.4 million below the net book value, (2) 45 percent or $72.3 million below the actual amount of the remaining debt, and (3) 72 percent or $230.2 million below the net replacement value.

In congressional hearings last year, concerns were expressed by some members of Congress that PMA sale prices

[1] Pricing Alternatives for Power Marketed by the Department of Energy, GAO/RCED-86-186BR, September 1986.

based on the unpaid debt balances would indicate a "fire sale" approach to PMA divestiture. In light of these expressed concerns and APA's plans to establish a minimum acceptable bid which may be substantially below the unpaid debt balance, we believe additional information is needed to explain how APA's proposed pricing approach will meet the sale objective of protecting the taxpayers' interest.

OTHER MATTERS

In addition to the concerns discussed above, our work disclosed several other matters which suggest that additional information on the APA sale, before an RFP is issued, may enhance the overall divestiture process. These matters are discussed below.

Justification for Sale--APA has not yet fully evaluated several key aspects of the appropriateness of the proposed sale in its basic sale documents and studies. For example, these documents do not include (1) an analysis of the pros and cons of selling or (2) a discussion of the details of why APA is no longer needed to carry out its basic missions. Also, APA has not fully evaluated the likely benefits and costs from the sale and compared these to other alternatives, such as not selling at all or selling based on valuation methods other than the proposed present-value approach. For example, APA has not estimated the likely effect on retail power rates from the proposed or alternative methods for pricing and selling APA's assets.

The APA administrator told us that the purchase proposal to be submitted to the Congress in the future will include the basic rationale for selling APA and an analysis of the costs and benefits of the proposed sale. This proposal, however, will not be prepared until after bidding and evaluation are completed. We believe that the divestiture process may be better served by providing this information for public and congressional debate before an RFP is issued. Not only should these assessments and debate provide meaningful information on the merits of proceeding into the RFP phase of divestiture, but they could also increase the likelihood that an eventual sale proposal would be supportable by Alaskan, congressional, and other interested parties.

Timing of Sale--The timing of the proposed sale may not be consistent with protecting taxpayers' interests or in closing out APA's responsibilities. According to Coopers & Lybrand, the Alaskan economy is in an unsettled state due to the upheaval in the oil industry and reductions in state government spending. Although these problems are not expected to adversely impact the Eklutna sale, both Coopers & Lybrand and the APA Administrator believe they could significantly affect the sale of Snettisham. Coopers & Lybrand stated that the excess capacity of Snettisham, when coupled with the poor economy, may result in potential buyers heavily discounting the value of this project. They said that from the Treasury viewpoint, the value of Snettisham may be increased by delaying the sale. Similarly, the APA Administrator said the current economic uncertainties will tend to lower the offering price from purchasers, and he expressed concern that these conditions may result in not being able to sell Snettisham, particularly in the near-term.

Public Involvement--APA's efforts to involve all interested and affected parties in the sale process may warrant strengthening at the community level. As we understand APA's approach to public involvement, most informational outreach efforts (eg. meetings and the distribution of work plans and other documents for comment) have been focused on potential purchasers and other important interest groups, such as electric power associations and congressional committees. According to the administrator, APA has not distributed to general ratepayers documents designed to acquaint the public with sale issues and how the sale might affect them. Additionally, he said that APA has no specific plans for public meetings/workshops in Juneau and Anchorage to secure comments from local ratepayers on the proposed sale. While the APA Administrator believes that his dealings with the local municipalities, utilities, and other interest groups are sufficient to reach the ratepaying public, additional efforts to inform and involve local ratepayers may enhance the overall divestiture process.

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We are sending copies of this letter today to the Chairman, Subcommittee on Environment, Energy, and Natural Resources, House Government Operations Committee; and to the chairmen of the various congressional committees which have oversight responsibility for PMA activities. We will be available to discuss these matters in more detail at your convenience.

Sincerely yours,

Keith O. Fultz

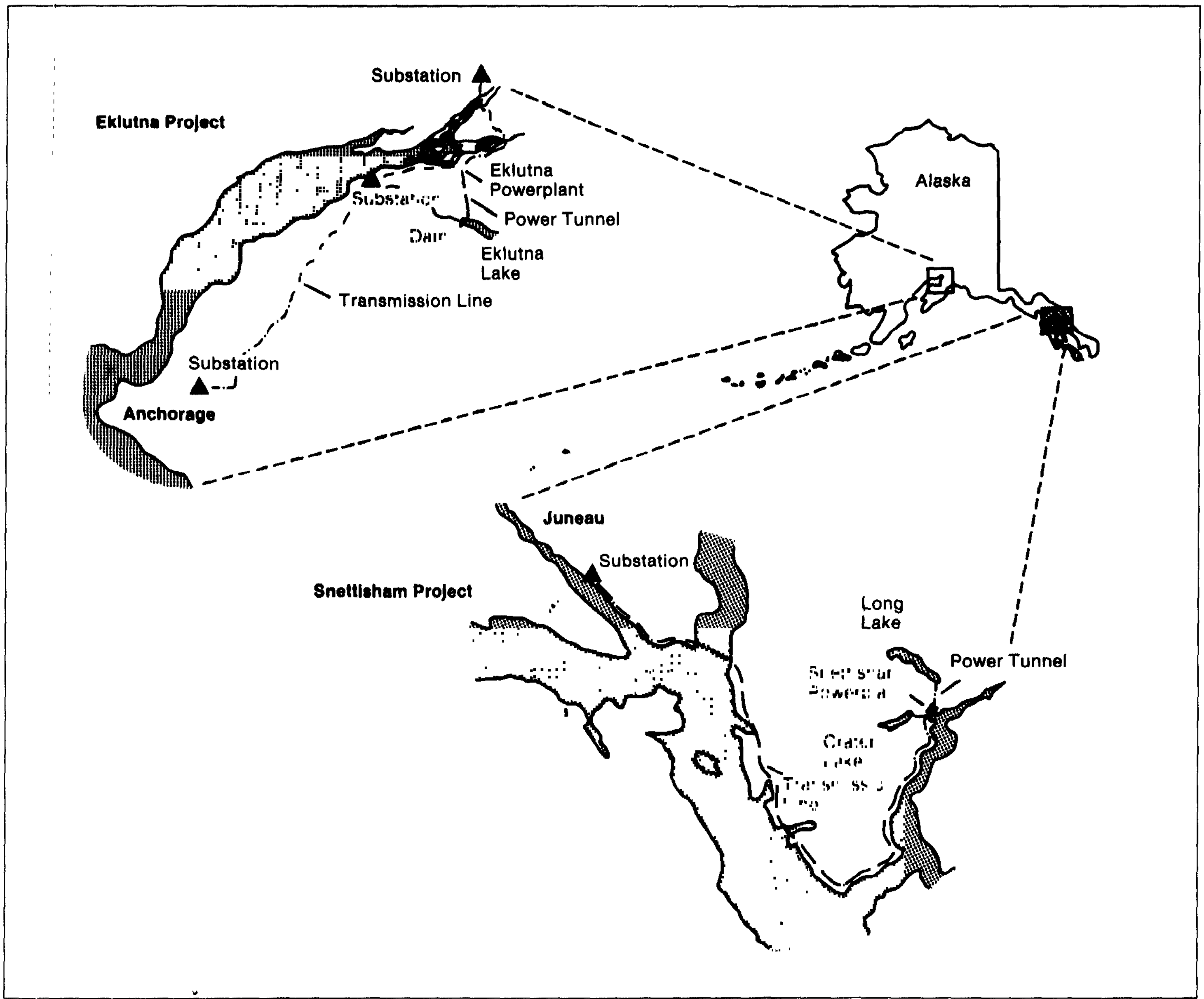
Keith O. Fultz
Associate Director

Project Description and Background

Project Description

The Alaska Power Administration (APA), one of the five federal power marketing administrations within the U.S. Department of Energy, is responsible for marketing electric power from two federal hydroelectric projects in Alaska—the Eklutna and Snettisham projects. (See fig. II.1.)

Figure II.1: Location of APA Facilities



Source: GAO analysis of APA data.

The Eklutna project, which provides power to the Anchorage-Matanuska Valley area, has been in service since 1955. The project's facilities consist primarily of a dam at Eklutna Lake, a powerhouse several miles away, a tunnel for water to pass from the lake to the powerhouse, and approximately 45 miles of high-voltage transmission lines. The 30,000 kilowatts[1] produced by the project provide about 5 percent of the area's power.

The existing 47,160-kilowatt Snettisham project is Juneau's main power source, supplying 70 to 80 percent of its power. The project was authorized to be built in two stages. The first stage, the Long Lake unit, has been in commercial operation since 1973. The Corps of Engineers, which has construction responsibility for Snettisham, is now building the Crater Lake unit, the second stage of the project. The Crater Lake unit will add 31,000 kilowatts of capacity to the existing powerhouse. The Snettisham project has about 45 miles of transmission lines.

APA sells the power produced at these two projects at wholesale prices. Eklutna's power is marketed to three public utilities in the Anchorage area—the Chugach Electric Association, Anchorage Municipal Light & Power, and the Matanuska Electric Association. Snettisham's power is marketed to the state of Alaska and to Alaska Electric Light & Power, an investor-owned utility serving Juneau. Combined, the Eklutna and Snettisham projects provide about 8 percent of Alaska's power.

Federal Investment and APA Repayment

At the end of fiscal year 1988, the cumulative federal investment made in these projects, excluding the Crater Lake unit of the Snettisham project, was $128.8 million. According to APA records, about $23.4 million of this investment had been returned to the Treasury, leaving a net investment of $105.4 million ($91.8 million for Snettisham's Long Lake Unit and $13.6 million for Eklutna). The October 1989 estimate for the total federal investment in constructing the Crater Lake unit was $67.5 million.

In addition to repaying a portion of the investment, APA has also paid $34.0 million in interest on the two projects to the Treasury through fiscal year 1988. According to APA's projection of future Treasury payments, the remaining outstanding investment and an additional $147.6 million in interest, including interest on the Crater Lake investment,

[1] A kilowatt is defined as a unit of power equal to 1,000 watts or about 1.34 horsepower.

would be paid to the Treasury if the projects remain under federal ownership.

Background

The Department of Energy's five federal power marketing administrations (PMA) market about 6 percent of the electricity generated in the United States. Table II.1 shows the relative size of each of the PMAs in terms of installed generating capacity and power sales revenues.

Table II.1: Size of Federal Power Marketing Administrations, Fiscal Year 1988

Dollars in millions

Power marketing administration	Installed capacity in megawatts	Power revenues	Unpaid investment
APA (excluding Crater Lake)	77	$95	$104
Bonneville	21,507	21,360	9,059
Southeastern	3,092	1,575	1,121
Southwestern	2,150	1,550	724
Western	10,385	8,231	2,719
Total	**37,211**	**$32,811**	**$13,727**

The administration has expressed its view that the federal government should not be involved in the sale and distribution of electrical power. Beginning in fiscal year 1986, it has proposed the divestiture of the PMAs. In a 1987 letter to the Speaker of the House of Representatives, the Director, Office of Management and Budget, stated that the five PMAs are "commercial activities which in most areas of the country are performed by private and other nonfederal enterprises." He further stated that because the need for federal power development had long since been filled, the government should divest itself of those activities.

In its fiscal year 1986 budget, the Reagan Administration proposed to transfer APA to state or other nonfederal ownership within Alaska. The Administration's fiscal year 1987 budget contained a broader proposal to sell all five PMAs. At that time APA stated that the process of divestiture was to be open and competitive, and was to result in a fair return on investment for federal taxpayers while recognizing the benefits now enjoyed by present customers. However, no specific terms for the sales were proposed. In acting on the fiscal year 1987 budget, the Congress prohibited any further study of divestiture of the PMAs, except for APA.

The former and current presidential administrations have proceeded with efforts to sell APA. In August 1989, APA signed a purchase agreement with the Chugach Electric Association, Anchorage Municipal Light & Power, and the Matanuska Electric Association to sell APA's Eklutna project. In February 1989 APA and the Alaska Energy Authority, a public corporation of the state of Alaska, also signed a purchase agreement for the Snettisham facility.

In addition to its efforts to sell APA, the Bush Administration has continued to support the divestiture of the other PMAS. In its fiscal year 1988 budget, the Reagan Administration proposed legislation to study possible divestiture of the Southeastern Power Administration. In its fiscal year 1990 budget, the Bush Administration proposed selling certain assets of the Southeastern Power Administration in 1991 and to offer selected assets of other PMAS for sale in future years.

Details of APA Sale Agreements

Sales agreements for APA's Snettisham and Eklutna projects were reached in February and August 1989, respectively. The agreements provide for how the final sales prices will be calculated, discuss the process for how the assets will be transferred, and address various responsibilities of the government and purchasers.

The pricing method for both projects will generally approximate a value representing the present value of future principal and interest payments that the Treasury would have received under continued federal ownership. Since, under continued federal ownership, these payments would be received by the Treasury over many years rather than immediately in a lump sum, future payments were discounted to derive today's value of payments expected in future years. Discounting is a standard financial analysis method used to derive the present value of future expenditures or payments. The method is based on the premise that a dollar in hand today is worth more than a dollar sometime in the future, since money currently available can be invested and grow at the rate of interest.

The following sections discuss the agreements for each project as well as provisions of the sales agreements that generally apply to both projects.

Eklutna Agreement

The Eklutna sales agreement includes the proposed sale dates of October 1 of 1989, 1990, or 1991.[1] The sales price in each case is calculated as the present value of all remaining principal and interest payments at the sale date, using a 9-percent discount rate plus an additional $1 million negotiated with the purchasers. Table III.1 shows the approximate price to be paid for the Eklutna project, depending on the date of sale. The sales agreement provides that payment is required within 5 years of enactment of federal legislation authorizing the sale.

[1] The agreement also describes how the selling price is to be determined if the transaction is finalized on a date other than these three.

Table III.1: Projected Selling Price for Selected Dates

Dollars in thousands

Transaction date	Remaining principal and interest[a]	Present value of remaining payments[b]	Selling price[c]
10/01/89	$16,583	$9,435	$10,435
10/01/90	15,544	8,580	9,580
10/01/91	13,912	7,631	8,631

[a]This is the amount that over time would be received by the federal Treasury under continued APA ownership.

[b]Discount rate of 9.0 percent; payments assumed at mid-year.

[c]Includes the $1 million negotiated addition to the sales price.

The three utilities that have reached an agreement to purchase Eklutna jointly submitted the only bid to purchase the project. The group's initial purchase price offer was exactly the same as the minimum acceptable bid; however, APA negotiated an additional $1 million in selling price. An additional feature of the Eklutna agreement concerns rights-of-way for Eklutna's transmission lines. According to the agreement, APA is responsible for ensuring that the purchaser has rights-of-way for use of the project's transmission lines.

Snettisham Agreement

The method for computing the sales price for the Snettisham project, as provided for in the sales agreement is more complex than that agreed to for the Eklutna project. Unlike Eklutna's pricing formula, the Snettisham sales agreement has alternative pricing formulas. The first computation for the Snettisham selling price is the present value of future scheduled Treasury payments using a discount rate 2 percentage points above the interest rate associated with the state's revenue bonds. These bonds are those that the state of Alaska will sell to obtain funds for the purchase. For example, if the purchaser's revenue bonds sold for 8.5 percent, a 10.5-percent rate would be used to discount APA's remaining payments.

Under the Snettisham pricing formula, as the purchaser's borrowing costs (and subsequently the discount rate) increase, the proceeds to the federal government decrease. The APA Administrator told us that if the state's borrowing cost rose too high relative to Treasury's borrowing costs, the federal government's proceeds from the sale would shrink to an unacceptable level. Thus, to preclude an unacceptably low sale price, the sales agreement includes an alternative pricing method that provides a floor to the price the government would receive. This alternative pricing formula sets a floor in the pricing formula of 85 percent of the present value of the remaining principal and interest payments, discounted at a rate equal to the average yield rate on 30-year Treasury bonds.

Even though the exact purchase price for Snettisham cannot be determined in advance, the APA Administrator believes that the price will fall between 85 percent and 90 percent of the present value of the remaining principal and interest payments discounted at the 30-year Treasury rate. For example, according to the APA Administrator, if interest rates are 9 percent, the price for Snettisham would be about $60 million, or if current interest rates drop to 7 percent, the price would be about $71 million. According to the Snettisham sales agreement, the purchaser will make full payment of the sales price to the Treasury by wire transfer on the transaction date.

One feature of the Snettisham agreement involves the treatment of the costs of constructing the Crater Lake unit, which had not been completed at the time the agreement was reached. When APA negotiated the Snettisham purchase agreement, it included an estimated $3,500,000 as an additional cost to account for the likely construction claims that contractors might file after completing the Crater Lake unit. APA's cost estimate was based on the average of construction claims estimates provided by the Army Corps of Engineers, the project constructor. The APA Administrator said that using the average provided a balance of the risks involved in estimating these costs. The actual amount of the claims, however, could be lower or higher than this amount. If the claims are higher than the estimate, the additional costs would be borne by the government. If the actual amount of the claims are less, the "savings" would accrue to the government.

Other Features of the Sales Agreements

The Eklutna and Snettisham sales agreements contain several other features designed to provide for a smooth transfer of operations. Within 6 months after congressional approval of the sale, the purchasers and APA are to adopt specific transition plans describing arrangements and a timetable for completing the sale and transfer. Among other things, these plans include the selection of a transaction date to transfer ownership, a schedule of payments to the Treasury, and provisions for environmental, engineering, and safety inspections of the facilities being sold.

The sales agreements also contain provisions protecting existing water agreements between APA and various nonpower beneficiaries of the projects, such as fish hatcheries, cities, and government agencies. For example, the Eklutna agreement provides that the purchasers will assume all APA responsibilities and benefits in regard to APA's agreement with the municipality of Anchorage concerning the Eklutna water project. Both agreements state that the purchasers will also continue to make lands and water available to the public for recreational uses.

Calculation of Alternate Interest Costs for APA's Snettisham Project

In our March 1987 letter to the Secretary, Department of Energy, we discussed our concern about APA's method for establishing a minimum acceptable price for the Snettisham and Eklutna projects. One aspect of our concern was that APA's pricing method failed to provide for a full recovery of the government's costs associated with these projects. A major reason for the lack of full cost recovery is that interest costs on the APA investment paid to Treasury is less than the interest payments would have been if the Treasury's actual borrowing rates were used, thus resulting in an interest rate subsidy.

In order to obtain an estimate of the interest rate subsidy for the two units of the Snettisham project, we calculated the present value of future payments to the Treasury according to the current repayment schedule and the existing project interest rate of 3 percent, and compared that to the present value of what those payments would have been if the APA project interest rate had reflected long-term Treasury borrowing costs at the time each of the projects became fully operational.

To analyze an unsubsidized investment recovery by the federal government, we assumed that the interest rate for the project was equal to the long-term Treasury borrowing cost at the time the projects were placed in service.[1] We used these rates to derive alternative streams of interest that would have been paid had the investment not been subsidized by low project interest rates.

We then calculated the present value of the actual expected stream of future payments (derived from the project rate of 3 percent) and the alternative stream of interest payments (derived by using the long-term Treasury bond rate at the time each of the units was placed on-line). We used the data on long-term Treasury rates for 1989 that were available at the time we undertook our analysis to discount future payments. The rate we used was approximately 9 percent, which was based on the average of the Treasury rates during the first 7 months of fiscal year 1989.

Our calculations for the Long Lake and the Crater Lake units follow.

[1] We used the long-term Treasury rate at the time the project was placed into service to derive our alternative interest stream representing a nonsubsidized investment by the federal government. We used this rate since it is common for nonfederal utilities to borrow money on short-term loans during the project's construction and then to refinance these debts with new long-term debt at the market rate of interest when the project goes on-line. Thus, we are using the analogy of how such a project might be financed in the private sector to determine how a nonsubsidized investment by the federal government might be structured.

Long Lake Unit

The Long Lake unit, the first part of Snettisham to be completed, became operational in 1975, 13 years after the authorizing legislation was passed. In 1975, the long-term Treasury bond rate was 6.96 percent, more than double the 3-percent rate that was established at the time of authorizing legislation.

Table IV.1: Impact of Alternate Interest Rates on Long Lake Repayment

Long Lake repayment	Total payments over life of loan	1989 Present value discounted at 9.1%
Principal	$90,886,974.00	$15,538,136.47
Interest (at 3%)	74,492,238.51	25,859,113.61
Total	**$165,379,212.51**	**$41,397,250.08**
Principal	$90,886,974.00	$15,538,136.47
Interest (at 6.96%)	172,821,993.34	59,993,143.57
Total	**$263,708,967.34**	**$75,531,280.04**
Present value of interest payments at 6.96 %	[a]	$59,993,143.57
at 3.00 %	[a]	−25,859,113.61
Difference	[a]	**$34,034,030.16**

[a]Data not applicable.

Crater Lake Unit

The Crater Lake unit is scheduled to be completed in 1991. The project interest rate applied to this unit will be the original project rate of 3 percent. Because we cannot predict the 1991 interest rate, we have used the long-term Treasury bond rate for 1989 that was available at the time that we undertook our analysis. That rate of approximately 9 percent was based on the average of the long term Treasury rates during the first 7 months of fiscal year 1989.

Table IV.2: Impact of Alternate Interest Rates on Crater Lake Repayment

Crater Lake repayment	Total payments over life of loan	1989 Present value discounted at 9.1%
Principal	$61,700,000.00	$5,309,282.72
Interest (at 3%)	66,693,760.80	19,354,909.70
Total	**$128,393,760.80**	**$24,664,192.42**
Principal	$61,700,000.00	$5,309,282.72
Interest (at 9.13%)	202,971,345.37	58,903,441.86
Total	**$264,671,345.37**	**$64,212,724.58**[a]
Present value of interest payments at 9.13%	[b]	$58,903,441.86
at 3.00%	[b]	−19,354,909.70
Difference	[b]	**$39,548,532.16**

[a]The discounted present value at a 9.13 rate of discount of a stream of principal and interest payments where interest is accruing at a 9.13 rate should equal the original investment level, in this case, $61,700,000. Our method only approximates the original investment level due to the mid-year interest accrual used in this analysis.

[b]Data not applicable.

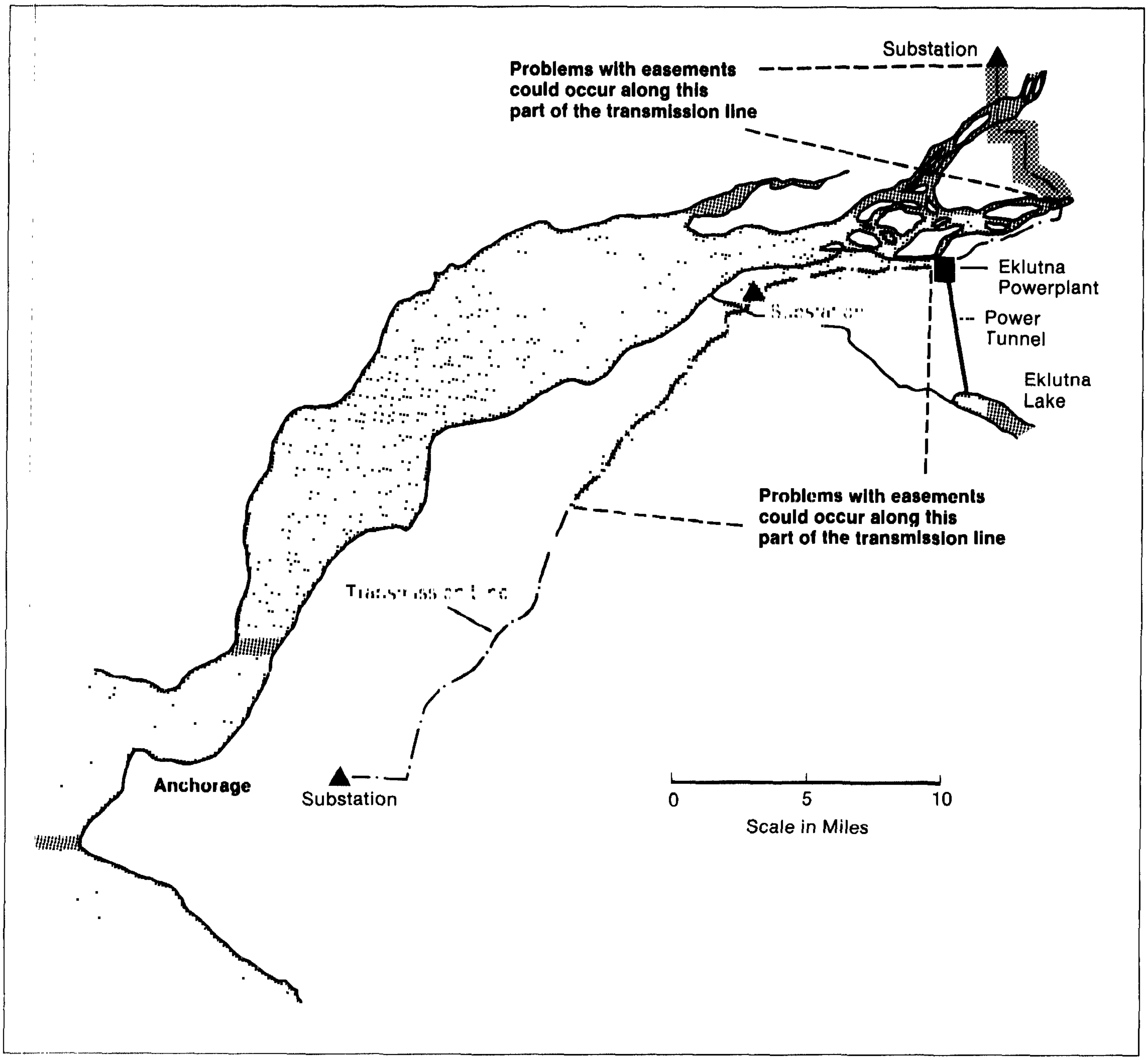
Total Snettisham Project

The alternative interest rate repayment for the combined Long and Crater Lake units of the Snettisham are shown in Table IV.3.

Table IV.3: Impact of Alternate Interest Rates on Repayment of Total Snettisham Project

Snettisham Project	1989 present value of total principal and 3% interest discounted at 9.1%	1989 present value of total principal and current interest discounted at 9.1%
Long Lake	$41,397,250	$75,531,280
Crater Lake	$24,664,192	$64,212,725
Total	**$66,061,442**	**$139,744,005**

Map of Eklutna Lands Under Private or Native American Corporation Ownership



Source: GAO analysis of APA data.

Objectives, Scope, and Methodology

The staffs of the Environment, Energy and Natural Resources Subcommittee, House Committee on Government Operations, and the Subcommittee on Water, Power and Offshore Energy Resources, House Committee on Interior and Insular Affairs, asked us to determine which concerns we raised in our March 1987 letter to the Secretary of Energy and which concerns raised during congressional hearings in 1986 had been addressed by DOE in reaching sales agreements for APA's hydroelectric power projects. Our key concern was that the approach being taken by the Department in selling APA's assets would likely lead to sales agreements that failed to recover all of the government's costs in constructing and operating the projects and would not reflect the market value of the assets.

We addressed our objective by holding a series of discussions with APA officials and reviewing various documents and reports that they provided. We reviewed the negotiated purchase agreements as well as the purchasers' original proposals and APA's analyses of these documents. We examined other documents, such as papers on tax exempt financing and the pricing of the Crater Lake unit for the Snettisham agreement, and various documents discussing personnel plans. We also analyzed alternative selling prices using market interest rates.

We interviewed representatives of various utilities and governmental entities in the state of Alaska.

We performed our field work from March to September 1989. We conducted this assignment in accordance with generally accepted government auditing standards.

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