COMPREHENSIVE REVIEW REPORT

FLATHEAD INDIAN IRRIGATION PROJECT

VOLUME 2 of 3

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FINANCIAL MANAGEMENT REPORT
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LEGAL REPORT
POWER CONSULTANT REPORT

PREPARED AT THE DIRECTION OF
THE SECRETARY OF THE INTERIOR

BUREAU OF RECLAMATION
PACIFIC NORTHWEST
REGIONAL OFFICE

BUREAU OF INDIAN AFFAIRS
PORTLAND AREA OFFICE

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FINANCIAL REVIEW OF FLATHEAD INDIAN IRRIGATION AND POWER PROJECTS

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FINANCIAL REVIEW OF
FLATHEAD INDIAN
IRRIGATION AND POWER PROJECTS

INTRODUCTION

During the week of March 26 through March 30, 1984, Betty T. Miller, Portland Area Finance Officer, and Petra Hatch, Assistant Portland Area Finance Officer, reviewed the financial operations of the Flathead Indian Irrigation and Power Project (FIIP).

The purpose of the review was to address the concerns expressed by the Inspector General (IG) in Report W-IA-BIA-31-83, February 1984, and in the General Accounting Office (GAO) Report RCED-84-126, and to determine if there were additional financial problems. As a result of the March 1984 review, Branch of Finance responded in a April 19, 1984, report to the Portland Area Director on all of the issues raised by the IG and GAO and on additional problems that surfaced during the review. The report also made recommendations on action towards resolving all of the known deficiencies and concerns. After the issuance of the April 1984 Finance Report, the GAO amended their earlier report by their letter of May 17, 1984. The Portland Area Office (PAO) addressed the matter by PAO memorandum of May 25, 1984, to the Deputy Assistant Secretary - Indian Affairs (Operations), copy attached.

The PAO Finance Officer's Report of April 19, 1984 addressed the following issues:

A. Bureau's Participation in the Proposed Hydroelectric Facility at Kootenai Falls, Montana

B. Accounting System (including Finance Staff, Audits, and Internal Controls)

C. Project's use of Nonfederal Personnel

D. Financial Reports

E. Reconciliation of General Ledger Accounts

F. Recommended Changes in General Ledger Accounts

G. Federal Investments in Irrigation and Power Projects

H. Deferred Irrigation Construction Costs - Indian Lands

I. Irrigation Operation and Maintenance Cost Expended by the Districts

As a result of the issues discovered by PAO Finance in the March 1984 review, the PAO initiated a series of corrective actions to remedy the deficiencies found. Corrective actions included advertising, selecting and providing additional personnel for the Finance Staff at FIIP, providing needed manuals and reference books, establishing internal controls and accounting procedures, correcting or modifying financial accounts and reports, providing training, requesting that certain funds be repaid to the United States Government, directing that certain additional funds be collected from the Irrigation Districts, and establishing a different method to be used in determining matured installment amounts to be paid to the United States Government for irrigation and power construction.

Some of the actions required to bring FIIP into compliance with federal government accounting practices are still in progress. Some of these actions include additional training to the Finance staff and managers at FIIP and further reviews in the accounting and procurement systems.

Because a comprehensive review had been made and actions were already in progress to correct deficiencies at the time that the review of FIIP was ordered, no new examination of the financial management system of FIIP was made in response to the Secretary of Interior's directive to review the operations of FIIP.

The report presented below discusses the on-going implementation of the actions directed by the Portland Area Director and the PAO Branch of Finance in order to reach compliance with accepted federal practices. This report also contains

suggestions for legislative actions and recommends policy decisions that must be made at the national level. The suggestions include proposed solutions to resolve problems involving irrigation and power construction repayments to the United States Government, deferred irrigation construction charges on Indian trust land, and deferred operation and maintenance irrigation credits on Indian trust land. This updated report generally follows the outline of the report prepared in April 1984 by the Area Finance Officer. That report was forwarded to the Central Office of the BIA and furnished by the Central Office to the IG and GAO.

Further information on all of the items in this report is contained in the PAO Finance Officer's report of April 19, 1984. Reference should be made to that report as it discusses these matters in greater detail.

BUREAU'S PARTICIPATION IN THE PROPOSED HYDROELECTRIC FACILITY AT KOOTENAI FALLS, MONTANA

Findings and Recommendations of Inspector General and General Accounting Office

The IG and the GAO questioned the Bureau of Indian Affair's (BIA) participation in a proposed hydroelectric facility at Kootenai Falls, Montana. The Kootenai Falls project was a proposed hydroelectric facility to be located at Kootenai Falls, Montana. Several interests, including FIIP, participated in this project. A total of $349,695.28 was charged as a nonreimbursable cost of the United States Government appropriation 14X2301, for the BIA's share of costs for the feasibility study and license application for the project, of which only $85,000.00 had been appropriated by Congress for that purpose. An additional $143,233.06 had been charged to the Power Division of FIIP.

GAO Report RCED-84-126

The GAO recommended that the Secretary of the Interior direct the Assistant Secretary for Indian Affairs to:

(1) "Report to congressional appropriations committees all reprogramming actions and the total funds made available for the purpose of funding BIA's share of Kootenai Falls feasibility study and license application expenses."

(2) "Terminate the use of Flathead power system revenues for Kootenai Falls feasibility study and license application expenses."

The Finance Officer recommended in her report of April 19, 1984, that an alternate funding source be obtained to repay the Power Division for the $143,233.06 expended. By letter of May 17, 1984, the GAO furnished the recommendation that the Assistant Secretary for Indian Affairs reimburse the Flathead Project's power revenues for the expenditures totaling $143,233.06 for the Kootenai Falls venture from an available appropriation account or seek a deficiency appropriation from the Congress for that purpose. The GAO recommendation was based on the following statement included on page 10 of their report:

> "A longstanding rule of appropriations law is that when either of two appropriations may reasonably be construed as available for expenditures not specifically mentioned under either appropriation, the agency's determination as to which appropriation to use will not be questioned. However, once the agency has made a determination, the continued use of the appropriation selected, to the exclusion of any other for the same purpose, is required."

Action Taken

The Central Office is in the process of reprograming existing appropriated Irrigation construction funds, appropriation 14X2301, to reimburse the Power Division for expenditures of $143,233.06 previously paid on the proposed hydroelectric facility at Kootenai Falls. The total expenditures of $349,695.28 previously charged to appropriated Irrigation construction funds (14X2301), for Kootenai Falls and the $143,233.06, appropriation 14X2301 discussed above, are considered nonreimbursable costs of the United States Government.

The Finance report included all information available to assist the Central Office to report to Congress various reprogramings that should have been reported to the

Congressional Appropriations Committee at the time such reprogramings were made.

The use of the Flathead Power Project revenues for the Kootenai Falls feasibility study and license application has been terminated. The BIA's participation has also been terminated.

ACCOUNTING SYSTEM

(INCLUDING FINANCE STAFF, AUDITS AND INTERNAL CONTROLS)

Findings and Recommendations of Inspector General

The Inspector General found that there was a failure of Project management to utilize current operating statements and that there was a tendency to ignore federal guidelines.

The Inspector General recommended that the BIA:

(1) "Conduct a review of the Project's finance office operations to determine appropriate staffing requirements and that the resulting recommendations be expeditiously implemented."

(2) "Provide the technical assistance required for the development of financial statements that are useful to the project managers and in conformity with generally accepted government accounting principles."

(3) "Require annual audits of the Project's financial statements."

Action Taken

A review was made of the FIIP Finance Office operations and the following actions have been taken:

Staffing

An Administrative Manager position was established and an individual entered on duty October 30, 1983. A Supervisory Accounting Technician position has been established and a selection made. A vacant Accounting Technician position is being advertised. After all vacant positions are filled there will be a staff of four accounting positions at FIIP. This position should fulfill the staffing needs of the FIIP Finance section. However, consideration should be given towards upgrading the positions.

Training

The following training has been provided to FIIP finance staff:

1. Phase II Governmental Bookkeeping and Accounting (formal training course)
2. Movement of Household Goods (formal training course)
3. Accounting system, reconciliations of general ledger accounts and the use of manuals (PAO Finance Officer reviewed with the Accounting Technician)
4. Voucher examination requirements (Administrative Manager reviewed with FIIP finance staff)

Manuals and References

Copies of all recommended manuals and references have been obtained by the Project. The PAO Branch of Finance furnished a manual of Principles of Appropriation Law to FIIP's Finance Staff.

Internal Controls

Action has been taken to separate the duties of requisitioning, procurement, receiving, voucher examination, and to schedule certification for internal control purposes.

Accounting System

FIIP is now reporting their SF 224, "Statement of Transactions" monthly report, by telecommunications to the United States Treasury as required by the Treasury. Changes have been made in general ledger accounts and are discussed in greater detail further in this report.

Financial Statements. - The financial statements furnished to FIIP managers are in conformity with generally accepted government accounting practices. During the March 1984 PAO Finance review, figures were compiled for a five-year period in order to obtain a picture of the FIIP's actual costs, to obtain an understanding of their budget, and to observe changes in costs through the years. A meeting was held with the Project Engineer and Power Superintendent to review the budget process and the use of financial reports to determine the financial status of FIIP. However, because of changes in personnel, additional training on financial statements is needed and is scheduled for Fiscal Year (FY) 1986.

Audits. - The Inspector General's recommendation as to the Bureau's obtaining annual, external audits was referred back to the Inspector General in the Finance report as 360 DM 1.4C(4) provides:

> "When it is appropriate for the Department to obtain audit service from another Federal audit agency, State or local government auditors or independent public accountants, the Chief, Contract and Grant Operations, will make the necessary arrangements and provide oversight except as otherwise provided in 360 DM 2 for audits or grantees under cognizant auditor assignments."

Therefore, audit services may be obtained only by the Department of the Interior, not the BIA. However, PAO Finance believes that PAO can make such proper reviews. The action scheduled to be taken below would resolve this matter, as it is believed that the PAO Finance Branch has a good understanding of the complex laws and the accounting system of FIIP and can provide the proper guidance. This is evidenced by the actions taken since FIIP was transferred to PAO, and by the April 19, 1984 Finance Report.

Additional Action Scheduled to be Taken

Training

The following additional training for FIIP's staff is scheduled during FY 1986: Voucher examination, Small Purchases and Imprest Cash, Introduction to Supervision, Travel, and Financial Reports.

PAO Staffing

A new GS-11 Irrigation Accountant position in the PAO, approved October 5, 1983, this position has not been filled. This position is proposed for filling in FY 1986.

Administrative reviews could then be made by this position annually for all PAO irrigation and power projects. PAO Finance believes this should satisfy the IG's concern.

Recommendation

The Branch of Finance recommends that FIIP's accounting system not be merged with the BIA system until certain modifications have been made in the system.

PROJECT'S USE OF NON-FEDERAL EMPLOYEES

Findings and Recommendations of the Inspector General

In about 1975, to circumvent Full Time Equivalent (FTE) position ceilings and to avoid Federal recruitment procedures, FIIP began using non-federal employees provided by the Flathead Joint Board (FJB) instead of filling vacated positions that were required for day-to-day operations of the irrigation system.

The IG, recommended that the project should be totally staffed by federal employees. It was further recommended that the Assistant Secretary for Indian Affairs take the action necessary to remove or increase FIIP's FTE restrictions.

Findings and Recommendations of the Branch of Finance, PAO

The Branch of Finance agreed with the recommendation of the IG but believed that not only should FIIP be staffed by federal employees, but that the project must be staffed by federal employees as long as the project is under the control of the United States Government.

The Act of August 7, 1946 (60 Stat. 895) reads:

> "...collections made from water users on each Indian irrigation project on account of assessments levied to meet the cost of operating and maintaining such project shall be deposited into the Treasury for credit to a trust-fund account pursuant to section 20 of the Permanent Appropriation Repeal Act, 1934 (48 Stat. 1233), and shall be available for expenditure in carrying out the purposes for which collected." (underscoring supplied)

Action Taken

On December 9, 1984, as a rider to the 1985 Interior appropriations bill, Congress approved the conversion of employees working for the FJB to federal employees. All position descriptions for the converted employees have been written and classified and all current employees are now federal employees. Performance standards for all positions are in place.

FINANCIAL REPORTS

Findings and Recommendation of the Inspector General

The IG recommended that the PAO Branch of Finance review the financial reports for FIIP, including the Operating Statements, and Trial Balances.

Action Taken

The Branch of Finance reviewed all of the financial reports and the following changes have been made.

Trial Balance Report

A separate trial balance is now being made for each of the three accounting divisions of FIIP, irrigation, power, and non-reimbursable Government costs.

Post Closing Trial Balance

A Post Closing Trial Balance is now being prepared as required by the manual.

Scheduled Action to be Taken

The Branch of Finance has received a Solicitor's opinion on the many questions regarding different methods for handling funds as was requested in the April 19, 1984 Report. As a result of this opinion, a further review will be made by the Branch of Finance in FY 1986.

RECONCILIATION OF GENERAL LEDGER ACCOUNTS

Findings and Recommendations of the Branch of Finance, PAO

During the 1984 review, Finance found that most of the general ledger accounts were being reconciled with subsidiary records monthly by FIIP Finance Staff. These accounts were found to be in balance. (See definition of general ledger accounts on page 4-15.)

Action Taken

The Area Finance Officer provided training on additional general ledger reconciliations needed. The staff at FIIP is currently performing the required reconciliations monthly.

RECOMMENDED CHANGES IN GENERAL LEDGER ACCOUNTS

Findings and Recommendations of the Branch of Finance, PAO

The general ledger accounts prescribed in 42 IAM 5.2.4 are intended to disclose the financial condition and results of operation of the irrigation and power activities of BIA as of any given date. This is done by showing the assets and other debits, liabilities, and other credits, and the income and expenses pertaining to the accounting period. The accounts are established to meet the accounting and reporting requirements of the Congress, the General Accounting Office, the Treasury, and the Office of Management and Budget.

During the review it was found that some transactions were not being coded to disclose the data that should be readily available in the general ledger accounts and in the trial balance as was intended by establishing the particular accounts. The recommended changes were explained in detail in the April 19, 1984 Finance Officer's Report, as to the purpose of the account and the reason for the change.

Also, during the 1984 review, it was noted that complete accounting data was not shown on all general ledgers and posting documents.

Action Taken

As a result of recommendations in the Branch of Finance report, FIIP is currently showing complete accounting data on all general ledgers and posting documents.

They have changed their general ledger entries to reflect in the Government's Chart of Accounts (Chart "A", GL 1204, Funds returned to United States Treasury) the payments made to the United States Treasury during the current fiscal year as required by the manual. FIIP's Chart of Accounts (Chart "B" GL 204.1) continues to reflect the cumulative total of funds repaid to the United States Government as required by the manual.

They have also changed their general ledger entries under GL 202.2, Transfer of Net Revenue from Power between Projects, to reflect the net power revenues transferred from the Power Division to Irrigation O&M (for Indians' share of deferred Irrigation Construction costs) and to Miscellaneous Receipts (for Districts' share of Irrigation construction costs) as required by the manual.

They have changed the general ledger entries to decimalize GL 128.1, Deferred Receivables - Construction Charges, to separate and reflect those deferred Irrigation Construction costs on Indian trust lands (GL 128.11) and non-Indian and Indian-owned non-trust land (Districts' shares) (GL 128.12).

Actions Pending

The PAO Branch of Finance submitted a recommendation on May 24, 1984, to the Central Office suggesting the proper handling of advance deposits currently carried under a suspense account. (See attached memorandum of 5/24/84.) The funds in the suspense account (United States Government account) consist of customer deposits

to guarantee electrical service bills, bid deposits for various transactions such as sale of scrap or excess material, and certain customer deposits for construction services. The trial balance for funds in this account as of March 1984 was $422,516.78. Because these funds are in a United States Government suspense account, they are not invested.

These funds are the result of routine FIIP Power Division operations. Because of this, PAO Finance believes that the funds should be invested for the benefit of FIIP. The BIA has authority to invest irrigation and power revenues not needed to meet current expenses. The interest earnings from such invested funds are credited as to irrigation or power revenues, as appropriate. It was recommended that the funds currently carried in this suspense account be deposited as suspense funds in the general power revenues account and be invested for the benefit of FIIP and power customers. The procedure is still under review by the BIA Central Office.

Scheduled Action to be Taken

The Branch of Finance will make a further review in FY 1986 to determine if further changes should be made to the general ledger accounts.

FEDERAL INVESTMENT IN IRRIGATION AND POWER PROJECTS

Federal Investments Balance Due Government

Findings of the Inspector General

In the Audit report dated February 1984 the OIG stated on page 3:

> "Project records show that as of December 31, 1982, the United States has invested appropriated funds of $12,477,282 in the Project's irrigation facilities and $5,527,911 in its power facilities, for a total recorded investment of $18,005,193 of appropriated funds. Adding the Project's reinvestment of $2,971,890 of power revenues in power facilities results in a total federal investment of $20,977,083 in Project facilities. The unpaid reimbursable federal investment is $6,055,267 in irrigation facilities, $2,973,219 in power facilities, and $2,545,489 classified as "miscellaneous deferred debits," representing the unpaid investment from reinvested power revenues, for a total remaining debt of $11,573,975."

Findings of the PAO Branch of Finance

The amount shown on page 3 of the Office of IG Audit Report, reflecting the United States Government's investment in the irrigation and power projects, is in error.

The amount of $2,545,489 shown as "miscellaneous deferred debits" should not be included in the total remaining debt due the United States Government. This amount represents the Power Division's expenditure of power revenues for extension and replacement of power facilities as authorized by Section 6 of the Act of May 25, 1948, as amended by P.L. 97-100, December 23, 1981 (95 Stat. 1391, 1404). No United States Government appropriated funds are involved. Therefore, those expenditures are not reimbursable to the United States Government.

Action Taken

The Solicitor, in an opinion requested for the preparation of this report, concurred with the Branch of Finance's conclusion that the $2,545,489 should not be included in the total debt due the United States Government. (See Solicitor's response to Question I2).

On November 5, 1984, the Office of the IG accepted the PAO Finance Officer's report by memorandum. (See attached memorandum of 11/5/84). During the preparation of this report, the IG's Sacramento Office was contacted regarding the differences in opinion on the method of calculating the remaining debt. The IG's Sacramento Office said that the issue and the method of calculation of the remaining debt owed the United States Government was resolved and they would not object to the calculation method used by the PAO Branch of Finance.

Irrigation Operation and Maintenance Costs Due the U.S. Government

Findings of the Branch of Finance

The Branch of Finance reported that FIIP records show Irrigation Operation and Maintenance costs of $134,070.89 due the United States Government. This amount represents United States Government appropriated funds transferred to FIIP's Irrigation Project to cover deferred operation and maintenance charges on Indian land because Indians were unable to pay such charges. Such amount is reimbursable to the United States Government. At the time the transfer was made, a listing should have been prepared identifying the amount of operation and

maintenance charges deferred and indicating the tracts to which those changes applied. Payment of deferred charges should have been made to the United States Government rather than to the Irrigation Project. In his memorandum of June 12, 1964, a past Project Engineer stated that it was not possible to identify the above amount to any specific Indian lands and that all Indian delinquencies for that period had been deposited as revenues to FIIP.

Action Taken

By memorandum of September 4, 1985, FIIP was requested to pay the above amount from irrigation operation and maintenance funds to reimburse the United States Government for the $134,070.89 of deferred operation and maintenance charges.

Action Pending.

FIIP has not yet determined if sufficient funds are currently available in the operation and maintenance account to make the requested payment of $134,070.89 at this time. PAO Finance will continue to work with the FIIP Finance Staff to resolve this situation.

Arrears in Construction Repayments

Findings of the Inspector General

On page 6 of the Audit Report, the IG discusses the reasons for the repayment of the federal investment being in arrears. The reasons given were the limitation in the Districts' repayment contracts, and the failure to use all of the net power

revenue to reduce the debt during the years such revenue was available but not used for that purpose. The IG recommended that the BIA take appropriate action to either obtain Secretarial approval for elimination of repayment limits, or to increase the limits to provide for repayment of the federal investment as required by law.

Findings, Action Taken, and Recommendations of the PAO Branch of Finance

Irrigation Construction - Districts Share.

The Finance Officer's report questioned FIIP's method of computing the Districts' share of the matured installments to repay the United States Government. A question was presented to the Office of the Solicitor as to whether PAO Finance's suggested method or FIIP's current method should be used. The Solicitor agreed with the Finance Officer's interpretation as to the method that should have been used.

Action Taken

Based on the Solicitor's opinion, the Project was requested by memorandum of October 7, 1985, to repay the United States Government from power revenues the deferred amount of the Districts' share that would have been paid if the proper method of computation had been used. PAO Finance will continue to work with FIIP to resolve this matter.

Recommendation of PAO Branch of Finance

The repayment contract should be renegotiated to eliminate the repayment limitation. This is based on the belief that there will be sufficient power revenues to pay the Districts' share and, therefore, direct assessments are not expected to be made in the future. In the unlikely event that power revenues in the future are not sufficient to cover the Districts' share of matured installments for irrigation construction, further action should be taken at that time. If and when the repayment limitation is eliminated, it is recommended that the Districts' deferred amount, because of the current contract limitation, be paid from net power revenue before any further matured installments for irrigation construction costs are paid from net power revenue. Thus, the application of the power revenues would be equitable for both the Districts and the Indian trust land, as the Districts' full share of the matured installment would then be repaid to the United States Government. Indians having trust land have received their full share of credits on operation and maintenance irrigation bills throughout the years from power revenue. Those under the Districts did not receive their full share of the power revenue because of the repayment contract limitation.

Irrigation Construction - Indian Trust Lands

Additional amounts could have been repaid the United States if arrangements had been made for repayment of the Indians' deferred construction costs when a fee

patent was obtained or when the land was sold out of trust to a non-Indian. (This is discussed later under the section of Deferred Irrigation Construction Cost - Indian Lands on page 4-30).

Power Construction

Findings

The Finance Review found that the amount of the matured annual installments due the United States Government may or may not be in arrears depending upon the interpretation of Section 6 of the Act of May 25, 1948 (Public Law 80-554), authorizing expenditures of power revenue for improvements and extensions classified by the Project as "470" funds. Section 6 of the Act provides:

> "Amounts so expended shall be added to the unmatured portion of the reimbursable construction costs of the power system in accordance with subsection 2(f) of this Act, so as not to reduce the net power revenues available for application under subsection 2(h) of this Act." (Underscoring supplied.)

Based on FIIP's interpretation of Section 6 of the Act, the matured annual installments for the power construction costs, which were due and would have been otherwise paid to the United States Government, were offset by the amount of "470" funds expended during that year (except for Calendar Year 1982 and thereafter when deductions were not made for the "470" expenditures).

The Finance Officer believes instead, that it was the intent of Section 6 of the Act, that any reinvestments of power revenue in FIIP should not delay the repayment period of the United States Government's investment. It was not intended for the

"470" amount to be deducted from the "matured" annual installment, but instead added to the "unmatured" amount of future annual installments to make up in future years the amount that would have been available in the current year, except for such "470" expenditures to apply to any or all of the priorities in Section 2(h) of the Act. The current "470" expenses should have been added to increase the future annual installments, but not added to the total debt due the United States Government.

Also, through the years, FIIP did not apply all of the net power revenue that was available to matured installments, but instead applied the net power revenue only to the first two priorities as listed in Section 2(h) of the Act of May 25, 1948 (the matured annual installments for power and irrigation construction costs). FIIP did this because they understood the maturing installment was to be computed according to the limitation under the Districts' repayment contracts and Section 6 above.

Action Taken

The question of the proper interpretation of Section 6 of the Act was presented to the Office of the Solicitor. In his response to Question 12, the Solicitor determined that the Finance Officer's conclusion is consistent with the terms of the Act. Hereafter, in accordance with the Act of May 25, 1948, FIIP will use any net power revenues remaining after payment on the matured installments to apply against the other priorities as required in Subsection 2(h) of the Act of May 25, 1948.

Recommendations of PAO Branch of Finance

As the Committee established by the Secretary recommends that considerable amounts of power revenues be used over the next several years for upgrading (extensions and replacements) the power system, it is recommended that Section 6 of the Act of May 25, 1948 be amended to include the following underscored portion:

> "Amounts so expended shall be added to the unmatured portion of the reimbursable construction costs of the power system in accordance with subsection 2(f) of this Act only when and to the extent such expenditures reduce payment of the matured installments, so as not to reduce the net power revenues available for matured installments under subsection 2(h) of this Act and so as not to extend the period for repayments to the United States Government."

The current wording of the 1948 Act would result in FIIP paying off the debt to the United States Government at a higher rate each year thus accelerating the payment of the debt to the United States Government. However, we believe that if sufficient revenues are collected each year to pay both the matured installments, and the additional costs of upgrading the power system, that the power users should not be penalized further by increasing the amount of matured installments to be paid in future years if power system improvement occurred in a current year. PAO Finance believes, however, that if the net power revenue does not cover the matured installments, the portion of the matured installment remaining unpaid for any given year should be added to the unmatured installment, so that the total payment period would not be extended by the upgrading of the power system.

It is further recommended that the amount of the matured installments for power construction that would have been paid in the past if the installments had been computed properly be calculated. Consideration should be given to paying the

amount in arrears (difference between past matured installments now computed under method concurred in by the Solicitor and the past matured installments actually paid) before application of net power revenues are made against priorities No. 3 and thereafter of Subsection 2(h) of the Act of May 25, 1948.

Determining Gross and Net Power Revenue and Application

In order to determine the amount of net power revenue available to apply to the priorities of Subsection 2(h) of the Act of May 25, 1948, the following findings on the method of determining operation and maintenance expenses, revenues, and net power revenues must be given consideration.

Findings

The Act of May 25, 1948, provides that net power revenue shall be determined by deducting from the gross revenues the expenses of operating and maintaining the power system, and the funds necessary to provide for the creation and maintenance of appropriate reserves in accordance with Sec. 3 of the Act of August 7, 1946 (60 Stat. 895, P.L. 79-647). Therefore, the formula is:

+ Gross Revenue
- Operation and Maintenance Expenses
- Reserves
= Net Power Revenue

Sec. 6(b) of the repayment contract provides:

> "The expenses of operating and maintaining the power system, to be used in computing the net revenues under said Act of May 25, 1948, shall include those actually incurred during the period covered by the computation, and those estimated to be incurred during subsequent accounting periods for the performance of such current or deferred operation and maintenance work as necessitates, in the judgment of the Secretary of the Interior, the making of advance provision therefor out of the accumulated net revenues, but such estimated expenses shall be adjusted to conform to the actual expenses as these are incurred."

Reserves

Section 3(2) of the Act of August 7, 1946, authorized:

> "...creation and maintenance of reserve funds to be available for making repairs and replacement to, defraying emergency expenses for each project to be maintained at such level, within limits set by the Director of the Bureau of the Budget, as may from time to time be prescribed by the Secretary of the Interior."

Section 6 of the Act of May 25, 1948, provided:

> "In each fiscal year commencing after the approval of this Act for which an appropriation of the power revenues from the project is made in an indefinite amount pursuant to section 3 of the Act of August 7, 1946 (60 Stat. 895; 31 U.S.C., sec. 725s-3), the power revenues so appropriated shall be available, to the extent of not to exceed $75,000, for the purpose, in addition to those other purposes now required or permitted by law, of making such improvements and extensions to the power system as the Secretary of the Interior may deem requisite for the provision of electric service to persons whose applications for such service could not otherwise be complied with in due course of business. Amounts so expended shall be added to the unmatured portion of the reimbursable construction costs of the power system in accordance with subsection 2(f) of this Act, so as not to reduce the net power revenues available for application under subsection 2(h) of this Act."

Based on the above cited Acts and testimony provided during Congressional hearings resulting in the Act of May 25, 1948, we have made the interpretation that there are (or should be) two reserves. One reserve would be set aside as authorized by the Act of August 7, 1946, for emergency expenses to ensure continuous operation of the power system. This reserve requires approval by the

Secretary of the Interior and the Director of Budget. Such approvals would be obtained through the budget process by establishing such amount as a line item in the operation and maintenance power budget.

The second reserve was originally authorized not to exceed $75,000 to make improvements and extensions to the power system. This reserve was increased by P.L. 97-100, December 23, 1981 (95 Stat. 1391, 1404) from $75,000 to $750,000 or 20 percent of the gross power revenues of the project for the preceding fiscal year. This reserve requires approval by the Secretary of the Interior. This reserve is classified by FIIP as "470" funds. Approval of this reserve would also be through the budget process.

Scheduled Action to be Taken

To properly determine the cost that should be chargeable to "470" funds for improvements and extensions and the cost chargeable to 0700 funds for operation and maintenance for the power system, definitions and guidelines for improvements and extensions, as distinguished from operation and maintenance, will be established by FIIP in cooperation with the PAO. Additionally, guidance will be given to FIIP by PAO as to the outstanding obligations and projected expenses to be included in operation and maintenance expenses to arrive at the net power revenue.

Recommendations of Branch of Finance

It is recommended that two reserves be established, one for emergencies and one for upgrading the project. The Committee is recommending a specific amount to be established as an "emergency" reserve to ensure continuous operation of the project.

DEFERRED IRRIGATION CONSTRUCTION COSTS INDIAN LANDS

Findings by the Branch of Finance, PAO

There are a number of concerns relative to deferred irrigation construction costs on Indian lands which were not addressed by the IG but which need resolution. The concerns are discussed below and the recommendations for all of the concerns appear together in the next subsection as the proposed solutions are interrelated.

Deferred Irrigation Construction Costs - Indian Lands

The Leavitt Act (47 Stat. 564, July 1, 1932) and P.L. 80-554, May 25, 1948, provide for the deferring of irrigation construction cost apportioned to Indian lands. Specifically, the Leavitt Act authorized the Secretary of the Interior to adjust reimbursable debts of Indians and tribes of Indians and:

> "...Provided, that the collection of all construction costs against any Indian owned lands within any Government irrigation project is hereby deferred, and no assessments shall be made on behalf of such charges against such lands until the Indian title thereto shall have been extinguished..."

Section 2(i) of the Act of May 25, 1948 (P.L. 80-554) provides:

> "In applying net revenues from the power system to the annual installments of irrigation system construction costs for any division of the project under the proceeding subsection, allowance shall be made for any construction costs deferred under the Act of July 1, 1932 (47 Stat. 564; 25 U.S.C., Sec. 386a), or already repaid to the United States which have been deducted from such installments under subsection (e) of this section, by distributing the net revenues available for such application over all irrigable lands within the division on an equal per acre basis, and by applying the net revenues distributed to the lands chargeable with the construction costs that have been so deferred or repaid, in amounts proportionate to the deductions made on account of such costs, to any then unpaid or subsequently assessed costs of operating and maintaining the irrigation system which are chargeable against the same lands."

The intent of the Act of May 25, 1948 (P.L. 80-554) is to apply the net power revenue equitably, PAO Finance assumes, for both Indian and non-Indian. The net power revenue is to be applied to irrigation construction cost as follows:

Non-Indian (Includes Indian non-trust lands). - The non-Indians apportioned share is to be applied to the annual installment to repay the Districts' irrigation construction costs due the United States Government. The funds are transferred from 14X5648, Power (power revenues of the Power Division), to 142881, Miscellaneous Receipts (general fund of the Treasury for the United States Government).

Indian (Trust lands). - As the irrigation construction cost for the Indian are deferred by the Leavitt Act, the Indians apportioned share is applied to the Indians operation and maintenance irrigation assessment (unpaid or subsequently assessed). The funds are transferred from 14X5648, Power (power revenues of FIIP's Power Project), to 14X5240, Irrigation (operation and maintenance irrigation

revenues of FIIP's Irrigation Project) to cover the credit given on the Indian irrigation operation and maintenance bill. Thus, the Indians share of the irrigation construction cost remains deferred.

Title to Indian Land Passed to Non-Indian

The following exchange is taken from page 52 of the book on the Congressional hearings (committee Hearing No. 33 in February and March 1948) which resulted in the Act of May 25, 1948 (P.L. 80-554). Mr. Samuel J. Flickinger was the Assistant Chief Counsel, Bureau of Indian Affairs. The Hon. William Lemke from North Dakota was a member and the Hon. Welsey A. D'Ewart from Montana was the Chairman of the subcommittee on Indian Affairs, Committee on Public Lands.

Mr. Lemke: "May I ask right there, in other words, do I understand the Indian is not to pay for the construction cost but just for the maintenance."

Mr. Flickinger: "That is true. His cost is charged against the land, but that is a deferred cost, not to be collected as long as the title remains in the Indian."

Mr. Lemke: "Is it so that when the white man buys from the Indian he has to pay?"

Mr. Flickinger: "When he buys, then the construction costs will be paid by the white man. Provision will have to be made by him for that."

Mr. Lemke: "Will it be a lump sum?"

Mr. Flickinger: "No; that will be distributed as in the past."

Mr. Lemke: "If it was not a lump sum, the Indian would get that much less for his land?"

Mr. Flickinger: "There are no accumulated construction costs and the purchaser would begin to pay over the 50 year period or whatever period exists at that time."

Mr. D'Ewart: "He would probably be required to pay the accumulated item up to the date he bought the land."

Mr. Flickinger: "No."

Mr. D'Ewart: "He would divide by the number of years remaining in the 50 year period?"

Mr. Flickinger: "Well, we have always considered that in the past as beginning as of the date of the sale. At the present time it is a 40 year period. Otherwise, it would greatly hamper the Indian in the sale of his land in that there would be a considerable accumulated sum representing construction assessments which would materially reduce the land value, which, of course, I do not think is desired by the Congress because the Leavitt Act was enacted for the benefit of the Indian."

Because subsidiary records of ownership for the amount recorded in the accounts as deferred irrigation costs have not been maintained by FIIP, the Indian lands which have been sold to non-Indians and thus payable by those non-Indians is not known. A past Project Engineer stated that no arrangements had been made with the non-Indians to pay the deferred irrigation construction costs against the land.

The regulations for sale of irrigable lands and the special water contracts required are covered in 25 CFR 159. These regulations require that the form of contract, Form 5-462b, for the sale of irrigable lands be executed at the time of a sale and that:

". . . the purchaser will obligate and pay on a per acre basis all irrigation charges assessed or to be assessed against the land purchased including accrued assessment, which accrued assessment shall be paid prior to the approval of the sale . . ."

These regulations are not being strictly followed. At the time of sale a Form 5-462 is being signed by the purchaser but no contract for repayment of specific amounts reflective of accrued assessments is being required. The accrued assessments are not being paid prior to the approval of the sale.

The form 5-462 used in land sales on FIIP contains an agreement to pay

> ". . . all irrigation charges assessed or to be assessed against this land, including accrued assessments; and agree to pay said construction, operation, and maintenance assessments on the due dates each year. . ."

However, there has never been any effort on the part of FIIP to bill or collect any deferred charges. As no subsidiary records by land ownership have been maintained on the deferred charges for the Indian land, it would take considerable work to reconstruct and identify the amounts by individual ownership.

The Act of June 22, 1936 (49 Stat, 1803) provides:

> "Sec. 4 where irrigation assessments against such lands remained unpaid at the time the Indian title to such lands became extinguished and no lien existed and attached to such lands for the payment of charges so assessed and no contract for the payment of such charges was entered into, the Secretary shall cancel all such charges." (Underscoring added.)

The BIA is required by 25 CFR to strictly comply with the contract requirements of 25 CFR 159.1 relative to contracts as provided in the Act of February 14, 1920 (41 Stat. 409). Although the above act allowed the Secretary to cancel such charges where no contracts had been executed at that time, the authority is not applicable at the present time.

Fee Simple Indian-Owned Lands

In a memorandum dated July 31, 1967, from the Acting Assistant Commissioner copies of Solicitor's Opinions M-36708 and M-36711, pertaining to irrigation construction charges - Indian owned lands, were provided to all BIA Area Directors. In summary, these memorandums determined that fee patented Indian lands and land purchased by an Indian from a non-Indian (except when taken into

trust) were taxable and were to be treated the same as non-Indian lands, as far as irrigation construction cost assessments were concerned.

The Project Engineer and the Irrigation Clerk stated that they were following the above opinions, and irrigation construction costs were assessed from the time of sale on fee patented land and land purchased by an Indian from a non-Indian (except when taken into trust). Therefore, no credits were given in those cases to Indians' operation and maintenance irrigation assessments. Here again, if an Indian whose land was in trust obtained a fee patent, the deferred irrigation construction cost at the time of sale was not determined nor were arrangements made for payment.

There has continued to be questions by Indians as to whether Indian owners of fee patented land should have their irrigation construction costs deferred. In this regard, the following exchange is cited from pages 21 and 22 of the Congressional hearings on Public Law 80-554 which appears to be contrary to the Solicitor's opinions cited above.

> Mr. Flickinger: "...The third use under the existing law of the net revenues is to take care of the construction costs on the project as a whole except on the Indian lands. Under existing law, as long as the title remains in the Indian ownership to these lands, the construction cost is deferred so that it would apply only to the non-Indians, and the share which would otherwise apply to the Indians construction cost would be credited on their operation and maintenance costs. That is what is contemplated."
>
> Mr. D'Ewart: "Does your bill provide that when this allotted land is patented it will come within the irrigation district and assume the same charges as other land?"
>
> Mr. Flickinger: "That is not provided for in the present draft; no; but that I think would be more or less automatic in the event it ceases to be in Indian ownership."

Mr. D'Ewart: "It would happen in any case, whether it is provided in the bill or not; is that right?"

Mr. Flickinger: "I think that is true. Of course, as long as it is in Indian ownership, if a fee patent be issued, that would not be true for the simple reason that the construction charge would not be due if the Indian retained title. It would only be after his title became extinct. Then it would pass on and be subject to coming into the district. It would have to be voted in, of course, or petitioned in, pursuant to the State laws." (Underscoring supplied).

The repayment contract between the United States of America and the Flathead Indian Irrigation District states under Section 7:

"Indian-owned lands for which a fee patent is issued shall, upon their inclusion within the District as provided in Section 7 of this contract, be accorded the same rights and privileges and be subject to the same obligations as other lands within the District, except that such fee patented lands, so long as title thereto remains in an Indian or Indians, shall not be subject to assessment for any construction costs of the project during any period while the collection of construction costs on these lands is deferred under the Act of July 1, 1932 (47 Stat. 564), or by or pursuant to any other Act of Congress." (underscoring added).

Deferred Credits on Indian Lands

Deferred credits on Indian lands for operation and maintenance irrigation assessments are being carried in General Ledger Account 243, Other Deferred Credits. The reconciled total as of February 29, 1984, was $127,962.98. The credits accumulate because an Indian may have Class 3 land (temporarily non-irrigated), on which no operation and maintenance irrigation assessments are made to which the credit can be applied, or Class 1 and Class 2 (Irrigated), where the amount of the operation and maintenance irrigation assessment is less than the credit. The credit represents the amount of net power revenue transferred from FIIP's Power Division (14X5648) to FIIP's Irrigation Project (14X5240) to be applied to the Indians' operation and maintenance irrigation assessments. This is done because the Indians' irrigation construction assessments to which the credits would otherwise have been applied, are deferred under the Leavitt Act.

For example, one individual's account in the subsidiary ledgers showed a credit of $1,796,52, which the Irrigation Clerk stated had accumulated for 17 years or more as the Indian had only Class 3 land.

The Act of June 22, 1936 (49 Stat. 1803) provides:

> "Sec. 2. Where the Secretary finds that any such lands cannot be cultivated profitably due to a present lack of water supply, proper drainage facilities, or need of additional construction work, he shall declare such lands temporarily non-irrigable for periods not to exceed five years and no charges shall be assessed against such lands during such periods.
>
> Sec. 3. Where the Secretary finds that any such lands are permanently non-irrigable he may, with the consent of the landowner, eliminate such lands from the project."

Another individual had an accumulated credit of $90.16 since he had Class 1 land which had operation and maintenance assessments to which most of the credit could be applied. If any Indian has operation and maintenance irrigation assessments in excess of the credit, the Indian is to pay the net balance.

If an Indian's land is leased, the lessee pays the net difference to FIIP and also pays the credit amount to the Indian owner through Flathead Agency.

Example: Leased land - Indian-owned trust land

$258.66 - Gross bill (Lessee pays entire amount).
-37.27 - Net power revenue credit based on irrigation construction cost deferred. (Lessee pays Indian through Flathead Agency).
$221.39 - Net (Lessee pays to FIIP).

Example: Indian-owned trust land

$258.66 - Gross bill
-37.27 - Net power revenue credit based on irrigation cost deferred
$221.39 - Net (Indian pays to FIIP).

Repayment of Deferred Irrigation Construction Cost - Indian Lands - from Net Power Revenue

Section 2(h) of the Act of May 25, 1948, lists the order of priority in applying net power revenue. Item 2(h)(2) lists the payment of irrigation construction cost as priority No. 2. Section 2(i) of the Act requires that when applying net power revenue to priority No. 2 the Indians portion must be applied as a credit to operation and maintenance irrigation assessments since the Indians irrigation construction cost is deferred under the Leavitt Act of July 1, 1932.

It is a contradiction then, when priority No. 5 is reached, since that priority provides that net power revenue may be used to "liquidate construction costs chargeable against Indian-owned lands the collection of which is deferred under the Act of July 1, 1932 (47 Stat. 564; 25 U.S.C. sec. 386a)."

It does not appear reasonable that the costs can not be paid at priority No. 2 but can be paid at priority No. 5. The intent of the Act in applying net power revenue to the payment of these costs, it is assumed, is to be equitable to both Indian and non-Indian. Yet, the Indian has already received a credit under priority No. 2. If the net power revenue is also applied at priority No. 5, the power revenue would be paying once for the Indian lands as a credit to their operation and maintenance irrigation assessments (priority No. 2), and would be paying again for the Indians land when paying the Indians' deferred construction cost (priority No. 5). The power revenue would be paying for the non-Indian lands only at priority No. 2. It would be equitable if the Indians share had been applied at priority No. 2, towards

irrigation construction costs, instead of as a credit to operation and maintenance irrigation assessments. It would not be equitable if applied both at priority No. 2 and No. 5.

The Leavitt Act, July 1, 1932 (47 Stat. 564) provides:

> "That the collection of all construction costs against any Indian owned lands within any Government irrigation project is hereby deferred, and no assessments shall be made on behalf of such charges against such lands until the Indian title thereto shall have been extinguished..."

Appendix A to the attached Solicitor's opinion M-36708, dated July 18, 1967, relates that Congressman Leavitt stated that the legislation was intended to increase the value of the land to Indians at the time they sold their allotments by preventing deductions from the sale price of accumulated charges which sometimes exceeded the value of the land. It appears that the intent of the Leavitt Act has not been met at FIIP. Over $1,000,000 in deferred irrigation construction charges remain unpaid on Indian lands at FIIP. Even if the non-Indian paid the accumulated amount over a period of years after the land was purchased from the Indian, surely that amount would be taken into consideration by a prospective purchaser, in determining whether to purchase the land.

Recommendations of the Branch of Finance

Deferred Irrigation Construction - Indian Lands

It is recommended that the Act of May 25, 1948, be amended to allow the irrigation construction cost on Indian lands be paid from net power revenues at priority No. 2 of Section 2(h) of the Act of May 25, 1948, the same as for non-Indians and that

priority No. 5 be eliminated. Further, it is recommended that Section 2(i) of the Act be eliminated which now requires that when applying net power revenues to priority No. 2, the Indians' apportioned share, be applied to their irrigation operation and maintenance assessments.

It is recommended that the Leavitt Act be applied only when there are insufficient funds to pay the irrigation construction matured installment from power revenues (which to date has not happened), and direct assessments therefore be made to individuals. It is believed that the Leavitt Act was enacted because Indians were unable to pay the assessed construction cost. However, at FIIP, Indian and non-Indian construction costs are paid from power revenues not by direct assessments to individuals.

One of the stated purposes of the Act of May 25, 1948 (P.L. 80-554) is to pay as much as possible of the irrigation construction costs from the net power revenue (see 2(g) of the Act). The purpose of the Leavitt Act is to benefit the Indian unable to pay assessments for irrigation construction costs. However, the irrigation construction costs are being paid from power revenues at FIIP, not by direct assessments as at other projects.

The implementation of this recommendation: (1) would eliminate the inequity discussed above by paying the Indians' share under priority No. 2 and eliminating priority No. 5., (2) would not reduce their ability to sell their land as they would no longer be burdened by a lien on their land for the accumulated deferred irrigation

construction cost, and (3) would make moot the continued question of whether Indians' fee patented land should be deferred in addition to Indian trust land.

Title to Indian Land passed to non-Indian. - Future deferred irrigation construction costs on Indian land would be eliminated if the recommendation above is accepted and implemented. There are three alternatives in resolving the problem of the accumulated deferred construction costs on land which has passed out of trust, none of which is a fair or perfect solution. However, there appears to be no perfect or fair solution.

Alternative No. 1. - This alternative is payment of the deferred irrigation construction costs on Indian lands by assessing the non-Indian purchaser. This would require extensive work to reconstruct and identify the deferred amounts as to ownership. The non-Indian purchasers were not notified as to the specific amount due at the time the land was purchased. Many years have passed and ownership may have changed hands. Also, power revenues have been used to pay all other non-Indians' share of irrigation construction costs.

Alternative No. 2. - This alternative is payment of the deferred irrigation construction cost on Indian lands from the power revenue as allowed by priority No. 5 as discussed above. The power revenue has already been used to provide the Indian a credit on their irrigation operation and maintenance bill at the time construction costs were deferred at priority No. 2. If power revenue was used again at priority No. 5, the power revenue would, be paying the amount twice.

Alternative No. 3. - This alternative consists of cancellation of the deferred irrigation construction costs. Requests could be submitted to the Secretary of the Interior to cancel all of the Indians' deferred charges to date if it is determined that no proper lien existed against the lands. The determination as to whether legislation will be required, should be made.

Although Alternative No. 3 would require the taxpayer to stand the costs, it is recommended that this be given the first consideration in resolving the problem.

Deferred O&M Irrigation Credits. - It is recommended that all operation and maintenance irrigation credits remaining unapplied against accumulated operation and maintenance irrigation assessments be paid to the Indians. (No further credits would be given if the recommendation above is accepted and the Indians' share of the matured installments for irrigation construction is paid from the power revenues at Priority No. 2 and their irrigation construction cost is no longer deferred.)

IRRIGATION OPERATION AND MAINTENANCE COST EXPENDED BY THE DISTRICTS

Findings and Recommendations of the Branch of Finance, PAO

The Flathead, Mission and Jocko Irrigation Districts within FIIP and the Board of Commissioners of the Districts were formed under the laws of the State of Montana. By contract, the Districts were to collect irrigation operation and maintenance assessments from water users on non-Indian and Indian-owned non-trust lands (taxable lands) within the districts and pay such assessments to the United States Government.

In order to have a common understanding of the names used for the districts and the divisions, the following explanation is provided:

Irrigation Districts: Flathead, Post, Pablo, Camas, Jocko and Mission

Divisions for which limitations were established in repayment contract:

Mission Valley: Post - Flathead Indian Irrigation District, Pablo - Flathead Indian Irrigation District, Mission - Mission Irrigation District

Jocko: Jocko - Jocko Irrigation District

Camas: Camas - Flathead Indian Irrigation District

The correct procedure for FIIP to set operation and maintenance irrigation assessments is described below. FIIP determines the federally regulated operation and maintenance irrigation assessments and provides a listing to the Districts by irrigation district and school district. These lists contain the names of the non-Indian and Indian non-trust land users listed alphabetically, the legal description of their land, the number of irrigable acres, and the assessment rate per acre. The federally regulated operation and maintenance assessment amount is increased by the FJB to include the FJB and Districts' administrative costs. The final listings, including the FJB and Districts administrative costs, are then provided to the county by the districts. The county includes the amounts due with other county tax assessments, which the county then issues to the water users. When the funds are collected by the county, they are placed in a bank account to the credit of the Irrigation Districts and both the county and FJB account for the funds.

The county invests the funds until they are needed for disbursement by the FJB. County warrants are issued by the FJB to disburse funds. The assessments are due to be paid by the water users to the county by November 30 (1/2 of year) and May 31 (1/2 of year) of each year.

FIIP bills the Districts for the operation and maintenance assessments which are payable January 1 (1/2 of year) and July 1 (1/2 of year) of each year.

However, beginning in about 1975 and each year thereafter, FIIP followed incorrect procedures. The Project Engineer allowed the districts to retain a portion of the

operation and maintenance assessments which would otherwise have been collected, deposited into the United States Treasury, and used by the BIA to operate the irrigation system as authorized by Congress.

The Project Engineer prepared budgets for the Districts for the funds withheld, which, in conjunction with BIA's budget, was used to operate the irrigation system using both federal (hired by the BIA) and non-federal (hired by the FJB) personnel.

It appears that it was first contemplated that the withheld funds be used only for personal services of FJB employees. However, incorrect procedures may have lead to other costs being paid by the Districts. It should be understood that no review or audit was made of the funds expended by the Districts and the following findings are based on statements made by FIIP Staff and included in the attachments of the Finance Report of April 19, 1984.

Land was purchased by the Districts. FIIP (the United States Government) subsequently built substations on the land.

Montana State code provides in 85-7-1913(3) see attached copy:

> "If a district is appointed fiscal agent of the United States or is authorized by the United States to make collections for or on behalf of the United States in connection with a federal irrigation project, the board of commissioners or its secretary shall at any time allow any officer or employee of the United States, when acting under the orders of the secretary of the Interior, to have access to all books, records, and vouchers of the district which are in possession or control of the secretary or board."

Action Taken

Land. - The Area Office authorized FIIP to purchase the following sites (land) previously purchased by the Districts and on which the United States Government subsequently built substations or other buildings.

Hot Springs Project Office Site	$13,700.00
South Shore Substation Site	16,600.00
West Shore Substation Site	5,000.00
Valley View Substation Site	6,500.00
TOTAL	$41,800.00

Funds Assessed from Water Users to Operate and Maintain the Irrigation System Retained by the FJB. - As discussed above, on December 9, 1984, Congress approved the conversion of the nonfederal employees hired by the FJB to federal employees.

The Bureau began paying the former nonfederal employees in December 1984, and the FJB no longer paid any of the costs to operate and maintain the irrigation system. By letter of October 10, 1985, FIIP has been requested to bill the Districts for the portion of the operation and maintenance assessments retained by the Districts in January and July 1985 which were collected from water users for the purpose of operating and maintaining the irrigation system. The total amount for both January and July is approximately $540,000 and would have been billed and deposited into the Treasury except for the fact that from 1975 through the January and July 1985 billings to the Districts, FIIP allowed the FJB to retain such funds.

Recommendations of the PAO Branch of Finance

It is recommended that the Secretary of the Interior direct the Departmental auditors to audit the books of the Districts and FJB to determine if there are any other funds under their control which should be paid to FIIP. The PAO Branch of Finance would be available to participate in such an audit if desired.

UNITED STATES GOVERNMENT

memorandum

DATE: MAY 25 1984

REPLY TO ATTN OF:

SUBJECT: GAO Report RCED -84-126 and Office of Inspector General Audit Report W-IA-BIA -31-83 - Financial Review of Flathead Irrigation and Power Projects

TO: Area Director, Portland Area Office
Attention: Branch of Finance
Deputy Assistant Secretary - Indian Affairs (Operations)
Attention: Management Research and Evaluation

This is in response to the additional recommendation by the General Accounting Office (GAO) in their letter of May 17, 1984, relative to the above report, which would require the Assistant Secretary for Indian Affairs to reimburse the Flathead Project's power revenues for expenditures on the Kootenai Falls venture from an available appropriation account or seek a deficiency appropriation from the Congress for that purpose.

We concur with the recommendation of the GAO. The question then is whether there are funds available in the Bureau or whether an appropriation must be requested to reimburse the Project's 14X5648, Power, account in the amount of $143,233.06 for expenditures on Kootenai Falls.

As covered in our report submitted with our memorandum of April 27, 1984, $345,695.28 was expended from 14X2301 on the Kootenai Falls venture ($85,000.00, which was included in the FY 1979 appropriations, and $264,695.28, reprogrammed by the Bureau, which the GAO states must be reported to the congressional appropriations committees). On page 10 of the report, the GAO states:

> "A longstanding rule of appropriations law is that when either of two appropriations may reasonably be construed as available for expenditures not specifically mentioned under either appropriation, the agency's determination as to which appropriation to use will not be questioned. However, once the agency has made a determination, the continued use of the appropriation selected, to the exclusion of any other for the same purpose, is required."

We conclude from the above that because appropriation 14X2301 was used in charging the $345,695.28 amount that the same appropriation must be used to reimburse 14X5648 the amount of $143,233.06.

We have no funds available in this Area under 14X2301 to use for this purpose. Therefore, we request that you determine whether such funds are available at your level. If so, and the funds are allotted, the amount must be included in the reprogramming report to Congress. If funds are not available, we recommend that an appropriation be requested from Congress.

Area Director

cc: Flathead Irrigation Project
Confederated Salish and Kootenai Tribes

UNITED STATES GOVERNMENT

memorandum

DATE: MAY 24 1984

REPLY TO ATTN OF: Area Director, Portland Area Office
Attention: Branch of Finance

SUBJECT: Advance Deposits - Flathead Power Project

TO: Assistant Secretary - Indian Affairs (Operations)
Attention: Financial Management

During the week of March 26 through March 30, 1984, the Area Finance Officer and Assistant Area Finance Officer reviewed the financial operations of the Flathead Irrigation and Power Project.

As a result of the review, we are recommending changes in the handling of advance deposits currently carried under 14X6875, Suspense, as a debit to GL 134, Deposit Funds, and a credit to GL 224.1, Customer Deposits, and GL 224.3, other Unapplied Deposit Funds.

The advance deposits under GL 224.1 are power customer deposits to guarantee the payment of electric service bills (25 CFR 176.5). The advance deposits under GL 224.3 represents (a) bid deposits (sale of scrap, etc.) and (b) customer deposits for construction services as allowed by 25 CFR 176.6(b)-- except those customer deposits for construction cost recorded in GL 242, Customer Advances for Construction, which are deposited direct to 14X5648, (25 CFR 176.6 (b)(4)).

The customer deposits under GL 224.3 are refunded to the customer if certain conditions of the contract are met; otherwise, any amounts not refundable are forfeited and transferred to 14X5648. The customer deposits under GL 242, which are deposited direct to 14X5648, are applied to customers' power bills (up to 20% on the monthly bill).

The above system appears to be the method used for all power projects in the Bureau.

Because the advance deposits under 14X6875 are a result of operation of the Power Project, we believe that benefits that accrue should be to the Project and power customers, not to the U.S. Government. The principle is similar to the advance deposits being made under IIM Special Deposit accounts where the interest follows the principal.

The Trial Balance report for March 1984 shows a total of $422,561.78 under GL 134 for 14X6875. We recommend that the funds be placed in 14X5648, invested and the interest earned be applied as follows:

1. GL 224.1, Customer Deposits: A flat interest rate, for example 6% or approximately that earned in a bank savings account as determined from time to time by the Secretary of Interior or his designated representative would be earned on the amount of the customers' deposit and applied over the next 6 months to the customers' power bills.

The difference between that earned on the funds invested and that earned by the customers would accrue to the Project as administrative cost. Such funds would also be a benefit to the customers because they would be used for operation and maintenance expenses, reinvestment in the Project, or payment on annual installments.

2 GL 224.3, Other Unapplied Deposit Funds:

a. Interest on bid deposits would accrue to the Project.

b. A flat interest rate would be earned by the customer advances for construction and follow the principal, either refunded or retained by the Project in accordance with the contract. Any difference between interest earned on such advance deposits and that applied to advances by customers would accrue to the Project the same as in Item 1. above.

Early consideration is appreciated.

Area Director

cc: Flathead Project
Confederated Salish and Kootenai Tribes
of the Flathead Reservation

United States Department of the Interior

OFFICE OF INSPECTOR GENERAL
WASHINGTON, D.C. 20240

NOV 5 1984

Memorandum

To: Assistant Secretary - Indian Affairs

From: Assistant Inspector General for Auditing

Subject: Audit Followup, "Review of Selected Management Activities of the Bureau of Indian Affairs' Flathead Irrigation Project" (W-LA-BIA-31-83)

On the basis of information contained in responses dated May 2 and September 17, 1984, the subject audit report is resolved. In accordance with 361 DM, the report is being referred to the Assistant Secretary for Policy, Budget and Administration for tracking the actions required to implement the recommendations, as described in the September 17, 1984 action plan.

Robert W. Beuley

cc: Assistant Secretary - P3A
Audit Liaison Officer - 3IA
Area Director - Portland Area Office, BIA

RECEIVED
NOV - 9 1984
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UNITED STATES GOVERNMENT

memorandum

DATE: SEP - 4 1985

REPLY TO ATTN OF: Assistant Area Director (Administration)
Attention: Branch of Finance

SUBJECT: GL 1028.2, Irrigation Reimbursables Due the Goverment - Operation and Power Projects

TO: Project Engineer, Flathead Irrigation and Power Projects

Enclosed are copies of J.V. No. 0254-6-8, dated June 12, 1964; a memorandum of the same date from the Project Engineer to the Billings Area Director, and a Washington Office memorandum dated May 21, 1962, relative to Irrigation Reimbursables Due the Government - Operations and Maintenance. This was previously discussed in Section G(2), Page 6 of G, of the Branch of Finance Report on the Flathead Irrigation and Power Projects dated April 19, 1984.

The July 31, 1985, Trial Balance shows the balance due the U.S. Government for Irrigation Operation and Maintenance Reimbursables as follows:

14X5240 P14 023 0800:

Loans Due U. S. - Operation and Maintenance	GL 213.2	$324,617.97
-Funds Returned to U. S. Treasury	GL 204.2	- 1,756.24
-Charge-offs Authorized by Contress	GL 206.2	-188,790.84
Balance Loans Due U.S. Government		$134,070.89

Reconciled to:

Irrigation Reimbursables - Oper. and Maint. GL 1028.2 $134,070.89

The June 12, 1964, memorandum states that as of May 31, 1964:

1. GL 1028.2 showed an amount due the U. S. Government of $135,827.13.

2. No appropriated funds had been spent since Fiscal Year 1953.

3. Of the O & M delinquencies existing prior to Fiscal Year 1954, only $1,756.24 remained uncollected. By Journal Voucher No. 0254-G-8 the delinquencies of $1,756.24 were transferred from 136.5, Operation and Maintenance Charges, Indian Lands, to 128.3, Deferred Receivables Liens on Indian Lands

4. The difference between the $135,827.13 due the U. S. Government and the $1,756.24 deferred was collected and deposited to the Project's O & M account.

The current Trial Balance shows that the deferred liens of $1,756.24 have been subsequently paid leaving an amount due the U. S. Government of $134,070.89. As this amount was collected and deposited to the Project's O & M account, the Project had the advantage of these funds that should have been repaid to the U. S. Government. Therefore, the Project should now repay these funds.

Will you please determine if sufficient funds are on hand and if so, take the appropriate action to repay the U. S. Government. A report as to the action taken should be provided this office by September 16, 1985.

Your assistance is appreciated.

(Sgd) RONALD A. BROWN

Attachment

cc: Irrigation, Washington, DC
Surname
Branch chrony
Mailroom

BTMILLER:pe 9/4/85

It is requested that the deferred amount that could have been made under the second method be computed through the 36th installment. If sufficient funds are available in net Power revenues, it is further requested that the amount be paid to the U. S. Government. The amount remaining as deferred for the Districts' share would then be the amount of the Districts' share of the matured installments that exceeded the limitation in the Districts' repayment contract.

All future installments would then be computed as shown in the second method.

A report as to the action taken should be submitted as soon as possible.

(Sgd) RONALD A. SMOKIN

cc: Surname
Branch chrony
Mailroom

BTMILLER:pe 10/1/85

UNITED STATES GOVERNMENT

memorandum

DATE: OCT 7 1985

REPLY TO ATTN OF: Portland Assistant Area Director (Administration)
Attention: Branch of Finance

SUBJECT: Arrears in Irrigation Construction Repayments

TO: Project Engineer, Flathead Irrigation and Power Projects

In Section 6.1.b of the Finance Officer's Report of April 27, 1984, on the Flathead Projects, there is a discussion regarding arrears in Irrigation Construction repayments.

On page 4 of Section 6 two methods are shown for computing the annual matured installment amount to be paid to the U. S. Government for the Districts' apportioned share. The first method is that currently computed, for example:

$25,837.19	Gross 34th installment for Jocko District.
-10,037.19	Deferred due to amount limitation.
15,800.00	Limitation in repayment contract.
- 4,782.10	Indians' apportioned share deferred.
$11,017.90	Amount repaid to U. S. Government for Jocko District.

The Finance Officer reported that if the limitation was on the Districts' apportioned share under the contract only, which was to be repaid to the U. S. Government, then the following method of computation could have been used:

$25,837.19	Gross 34th installment for Jocko District.
- 4,782.10	Indians' apportioned share deferred.
21,055.09	Districts' apportioned share (non-Indians and Indian non-trust lands).
- 5,255.09	Deferred due to amount limitation.
$15,800.00	Amount repaid to U. S. Government for Jocko District.

A question was presented to the Office of the Solicitor as to which method was proper under the repayment contract with the Irrigation Districts. The Solicitor has agreed that the second method would be proper.

At the time of the report it was determined that if the second method were used, of the $604,148.46 deferred for the Districts' share, $408,664.43 could have been repaid through the 34th installment. (Mission Valley - $288,324.38, Jocko - $99,995.19, and Camas - $20,344.86 = $408,664.43.)

UNITED STATES GOVERNMENT
memorandum

DATE: OCT 10 1985

REPLY TO ATTN OF: Area Director
Attn: Branch of Land Services and Branch of Finance

SUBJECT: Irrigation Operation and Maintenance Assessments due from the Districts Project Engineer

TO:

Acting Project Engineer, Flathead Irrigation and Power Project

The Inspector General, in his February 1984 Report W-IA-BIA-31-83 found that in about 1975, to circumvent FTE ceilings and to avoid federal recruitment procedures, FIIP began using non-federal employees to fill vacated positions required for day-to-day operations of the irrigation system.

In order to accomplish the above, the Project Engineer established two separate irrigation O&M assessment amounts to be collected through the Districts from water users. (1) one assessment was to be paid to the Bureau in January and July of each year and the funds deposited into the Treasury to be used in operating and maintaining the irrigation system and (2) the other assessment was to be retained by the Districts Joint Board of Control to hire and pay non-federal employees to be supervised by the Project Engineer and work along side the federal employees in operating and maintaining the irrigation system.

The April 19, 1984, PAO Branch of Finance Report found that the Project "must" be staffed by federal employees as long as the Project is under the control of the U.S. Government.

The Act of August 7, 1946 (60 Stat. 895) reads:

> "...collections made from water users on each Indian irrigation project on account of assessments levied to meet the cost of operating and maintaining such project shall be deposited into the Treasury for credit to a trust-fund account pursuant to section 20 of the Permanent Appropriation Repeal Act, 1934 (48 Stat. 1233), and shall be available for expenditure in carrying out the purposes for which collected." (underscoring added)

Therefore, on December 9, 1984, as a rider to the 1985 Interior appropriations bill, Congress approved the conversion of the non-federal employees working for the Districts Joint Board of Control to federal employees. The Bureau converted and began paying those employee's salary in December 1984.

It is our understanding from you, that the January and July 1985 billings by the Bureau to the Districts for their collection of irrigation O&M assessments from water users were only for those amounts established by the Project Engineer to pay the former federal employees, excluding the assessments made to cover the former non-federal employees converted to

OPTIONAL FORM NO. 10
(REV. 1-80)
GSA FPMR (41 CFR) 101-11.6
5010-114
U.S. GPO

federal employees in December 1984. Therefore, the Districts continue to hold funds collected from water users to be used in operating the irrigation system although such expenditures are no longer being made by the Joint Board of Control.

As the purpose of those collections from the water users was to operate and maintain the irrigation system, you are hereby directed to immediately bill the Districts for those assessments established by the Project Engineer to be retained by the Districts for the purpose of operating and maintaining the irrigation system. It is our understanding that the amount is approximately $540,000.

The following is to be submitted as it occurs.

1. Copy of bill.
2. Copy of collection document.
3. Any other pertinent information.

Ronald A. Brown

FLATHEAD INDIAN IRRIGATION PROJECT
COMPREHENSIVE REVIEW
ENVIRONMENTAL COMPLIANCE

TABLE OF CONTENTS

ENVIRONMENTAL COMPLIANCE

INTRODUCTION

This report discusses the environmental compliance responsibilities and practices of the Flathead Indian Irrigation Project (FIIP). It was written following an environmental compliance review conducted in April and May 1985 in conjunction with the Engineering Committee's review of FIIP irrigation facilities. Informal discussions were held with FIIP staff, Flathead Agency staff, the Confederated Salish and Kootenai Tribes (CSKT) staff, Flathead Joint Board of Control (FJB) members, and water and power users for the purpose of developing an appreciation of local environmental concerns and issues. Field inspections of the physical irrigation facilities were conducted during three separate week long visits to obtain information on the environmental impact of past FIIP operations. In addition, an assessment was made of what future compliance requirements might be expected. A review of federal, state, and tribal environmental and resource law and regulation was also conducted to determine applicability to FIIP operations.

Environmental compliance by FIIP can be separated into 1) procedural implementation of the various planning and regulatory processes, and 2) substantive actions taken to protect the environment as part of operations.

ENVIRONMENTAL RESPONSIBILITIES AND REQUIREMENTS

This section of the report explains the basis for environmental responsibilities and requirements for the purpose of showing applicability to FIIP operations.

The National Environmental Policy Act (NEPA), PL 91-190 as amended, is the umbrella legislation that sets the basic federal policy for addressing both procedural and substantive areas of environmental compliance. Sec. 101 (a) of NEPA states:

> "The Congress, recognizing the profound impact of man's activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances and recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man, declares that it is the continuing policy of the Federal Government, in cooperation with State and Local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."

Sec. 102 (A), (B) and (C) of NEPA states:

> "The Congress authorizes and directs that, to the fullest extend possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in the act, and (2) all agencies of the federal government shall
>
> (A) Utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment;
>
> (B) Identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by title II of this act, which will ensure that presently unquantified environmental amenities and values may be given appropriate considerations in decision-making along with economic and technical considerations;

(C) Include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on-

(i) The environmental impact of the proposed action,
(ii) Any adverse environmental effects which cannot be avoided should the proposal be implemented,
(iii) Alternatives to the proposed action,
(iv) The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
(v) Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the existing agency review processes;"

As a result of this legislation, and the subsequent implementing regulations contained in 40 CFR 1500-1508, Department of the Interior (DOI) and Bureau of Indian Affairs (BIA) developed policy guidance, 516 DM and 30 BIAM, respectively, to facilitate implementation of NEPA, and the associated environmental statutes and policy directives. This DOI and BIA policy guidance applies directly to operation, maintenance, and construction activities of FIIP.

Role of BIA

The BIA has a two-fold responsibility for environmental compliance on the Flathead Indian Reservation. The first is as the federal operator of FIIP, and the second is

as the federal agency charged with the fiduciary obligation for protection of the trust resources and rights of CSKT. These roles sometimes conflict. As operator of FIIP, BIA delivers electrical power and irrigation water to users on the Flathead Indian Reservation. In addition, some electrical power is delivered off-reservation. The majority of these users groups are non-Indian. As the agency with the primary responsibility for the federal trust function for CSKT, BIA is concerned with providing services to Indian people.

At the present time both functions are mandates which BIA must carry out. Although there should be no difference in environmental compliance pursuant to either role, differences in social, cultural, economic and political perspectives of Indians and non-Indians serve to complicate compliance. For example, a recent conflict arose over whether, in a drought year, FIIP should give priority to delivery of water to irrigators, or to preserve instream flow needed to protect the CSKT trust fishery. This particular case required involvement of the federal district court to resolve the issue.

Role of the State of Montana

The majority of FIIP's facilities are located within the boundaries of the Flathead Indian Reservation. The existence of the reservation renders the applicability of the state body of environmental law questionable. There is no question, however, that state law applies to FIIP activities conducted off the reservation and may apply to activities conducted on fee lands within the reservation. Applicability of

state environmental law must be considered on a case by case basis since it may be preempted by tribal or federal environmental law.

Role of CSKT

The CSKT can, by reason of retained sovereignty and express statutory authorization, regulate some activities on the reservation. At least in some cases, this authority extends to environmental protection. The CSKT has adopted one environmental protection ordinance, the Shoreline Protection Ordinance, and is presently considering others such as stream bank protection and water quality protection ordinances. These ordinances may regulate FIIP operations on the reservation.

FIIP OPERATIONAL IMPACTS

Water Quality

During the environmental review, concern was expressed by local residents and various BIA and CSKT officials concerning dewatering of streams, increased turbidity levels, decreased dissolved oxygen levels, increased dissolved solids, increased occurrence of flooding and induced soil erosion. FIIP was identified as being directly responsible for these water quality impacts.

The United States Government has passed legislation addressing the prevention and correction of unacceptable water quality conditions. The Clean Water Act,

PL 92-500, as amended, contains several provisions, directed at the restoration and maintenance of the chemical, physical and biological integrity of the nation's waters. Those provisions are applicable to FIIP's operation.

The State of Montana, pursuant to the Clean Water Act, designated stream uses and established surface water quality standards for the protection of these uses for the streams in the lower Flathead River Basin to include the reach of the Flathead River between the highway bridge at Polson, Montana and the confluence with the Clark Fork River. This entire reach of Flathead River and the associated tributaries are within the Flathead Reservation and include most of the area affected by FIIP.

These state surface water quality standards were certified by the United States Environmental Protection Agency (EPA) and are, therefore, enforceable on FIIP activities as federal standards. Although most FIIP activities are conducted within the Flathead Indian Reservation, the question of state jurisdiction in implementing these standards on the Flathead Reservation has not been addressed because EPA retains oversite responsibility.

Based on discussions with Tribal and BIA agency staff, the state designated stream uses and corresponding standards appear to be consistent with the water quality protection and resource management objectives of CSKT. The technical and practical applicability of the state standards to FIIP activities relative to resource protection should not be a problem. Although the CSKT can develop counterpart standards, this task had not been undertaken at the time this report was prepared.

It is essential that FIIP operations effecting water quality be brought into compliance with established standards. Demonstrated compliance with state water quality standards, would indicate acceptable project operation.

The Clean Water Act, also applies to activities involving the placement of dredged or fill material in water bodies and wetland areas. The act requires that a Section 401 water quality certification from the state or EPA and a Section 404 permit from the United States Army Corps of Engineers be obtained before activities commence. FIIP conducts dredge and fill activities in streams, lakes, and reservoirs as a normal part of carrying out irrigation activities. FIIP staff could provide no evidence of compliance with either section of the act, even though compliance is not discretionary. It is important that FIIP administration recognize the applicability of these requirements and take appropriate measures to achieve compliance.

Fish and Wildlife Resources

The area served and effected by FIIP provides habitat for a rich and diverse fish and wildlife resource. The National Bison Range, and the Ninepipe and Pablo National Wildlife Refuges are within this area. These facilities are under the management of the United States Fish and Wildlife Service (USFWS). Although the refuges are managed for the production of migratory water foul, they also support a warm water fishery, as well as a variety of non-game wildlife species. The Ninepipe and Pablo Reservoirs, both FIIP facilities, are an integral part of the

refuges. In fact, all of the sixteen storage reservoirs and many of the canals operated by FIIP support fish and wildlife populations. Several of the streams impacted by FIIP operation support, or have the potential to support, a variety of trout species including the cutthroat trout.

At least two endangered species, the bald eagle and the grizzly bear, inhabit the reservation and the FIIP service area. The presence of these species mandates compliance with the Endangered Species Act, a requirement that heretofore has received little attention.

FIIP construction operation and maintenance activities result in impacts to the fish and wildlife resources and habitat of the Flathead Reservation. These impacts include the dewatering of streams, degradation of water quality and erosion of soil. The reservation fishery resources are specifically mentioned in the 1855 Treaty of Hellgate as being reserved for the use of the CSKT. FIIP management must make a consistent effort to minimize operational impacts if the fish and wildlife resource is to be preserved and enhanced. Implementation of the required planning aspects of the Fish and Wildlife Coordination Act and NEPA would help to minimize impacts. The review indicated that these planning requirements have not been implemented by FIIP in a consistent manner in the past.

The FIIP record of recognition and protection of the fish and wildlife resource appears mixed. For example, the Irrigation Division has cooperated with the USFWS to accomplish the refuge management objectives primarily migratory water

foul production, of the Ninepipe and Pablo National Wildlife Refuges In contrast, efforts to assure minimum stream flow or fish passage in the construction and operation of stream diversion structures, have been minimal. As a result, the trust fishery resource has been degraded.

In some cases degradation has resulted in the filing of damage claims and requests for a restraining orders by CSKT. For example at this time, there is an unresolved fisheries damage claim being processed under 25 USC 388 for a fish kill caused as a result of the dewatering of Crow Creek below Crow Dam.

Mining

The Irrigation Division of FIIP operates several pits and/or quarries to supply rock and gravel material for project operations. Such mining is regulated by the relevant parts of 25 CFR, 30 CFR and 43 CFR. Some parts of these regulations are concerned with environmental protection and mitigation of impacts. FIIP could provide no evidence of reviewing its operations for consistency and compliance with these regulations. It is particularly important that this review be conducted for activities on trust lands due to BIA's unique responsibility to assure adequate compensation for trust resources, as well as environmental protection on trust lands.

Timber Removal

Timber on trust land must sometimes be removed by FIIP during the normal course of irrigation operation activities. Although the removal of trust timber resources requires compliance with 25 CFR 163 and 53 BIAM, no established FIIP procedure for assuring compliance was found during the review. In fact, one situation was found where, in the course of road construction timber had been removed on the right-of-way and given to a FIIP employee for use as fire wood. This particular action may have constituted the basis for a trespass action against FIIP by either BIA-Flathead Agency, CSKT or the individual Indian owner. Personal liability fortrespass can extend to BIA staff where known trespass occurs, but is not reported. It is essential that FIIP, in conjunction with the Flathead Agency Superintendent and Forester, as well as CSKT, establish a procedure whereby timely compliance with regulation and policy can be achieved. Compliance with the requirements of NEPA would also serve to identify situations where implementation of the procedures would be appropriate.

Pesticides/Weed Control

The DOI requires the development of an annual pesticide use plan involving review and oversite of each material to be applied. FIIP is in compliance with this DOI procedure. The use plan is prepared, reviewed and approved annually. Some restricted use pesticides are applied by specially trained FIIP staff using special equipment. These chemicals are applied to canals, rights-of-way, and substation

yards. FIIP administration has provided for state and federal certification of project staff and supported a program necessary for safe application of pesticides.

Weed infestation along FIIP rights-of-way was repeatedly identified as a problem issue by FIIP staff during the review. FIIP staff indicated that weed spraying is not done on trust lands due to past objections by the CSKT. CSKT natural resources staff, however, acknowledged a noxious weed problem does exist and expressed a willingness to work with FIIP toward resolving the problem. It is essential that communication/coordination between FIIP and the CSKT be improved and some type of weed control plan be implemented where FIIP activities affect trust lands.

The demonstrated commitment of FIIP management to provide necessary funds and staff time to maintain an acceptable pesticide program should be continued. The improper or careless use of toxic materials can have extensive adverse impacts. Continuation of the acceptable program should minimize potential problems.

Hazardous Substances and Solid Waste Disposal

FIIP generates and must be able to appropriately handle such things as disposal of pesticide containers, disposal of waste lubricants, fuel and coolant spills, PCB disposal and spills, and disposal of FIIP generated solid waste. FIIP appears to be taking an inconsistent approach to addressing these types of problems. For example, the Power Division has conscientiously attempted to remove from service, temporarily store, and dispose of Polychlorinated Biphenal (PCB)

contaminated transformers. However, until a recent vandalism caused PCB spill, no procedure had been developed for expeditiously obtaining transportation and disposal services for PCB contaminated material in an emergency situation. This PCB spill resulted in the filing of several tort claims by FIIP staff in order to obtain payment for personal clothing contaminated during cleanup of the spill. The protective gear kept on hand for use in this type of work was not used in initial service restoration efforts. Planning and training for emergencies such as this would certainly improve FIIP's capabilities to adequately respond in a safe and timely manner. The development of adequate procedures for handling hazardous materials and solid waste, to include the development of a planning record, is particularly significant and necessary due to the potential personal liability of the federal official in charge.

FIIP has successfully developed the staff capability to adequately address some aspects of environmental compliance, such as pesticide application and PCB disposal. In some cases, the responsibility for compliance was added to the existing duties of employees. In these cases the position descriptions and workload should be evaluated and adjusted to assure recognition of actual job functions and responsibility.

PRESENT COMPLIANCE LEVELS

In reviewing the environmental compliance of FIIP, an attempt was made to evaluate the capability of the management/administrative structure to achieve compliance with the mandates of NEPA as well as the associated

environmental statutes, regulation and policy. The review revealed that procedural NEPA compliance on FIIP activities has only recently been recognized as a required activity. During the last year (1984/1985), the Power Division developed one NEPA compliance document while two NEPA compliance documents were developed for the Irrigation Division. Several additional activities of both divisions were under taken during the same period with no effort at compliance. These three NEPA documents are the first developed for FIIP activities, with the exception of a document assessing the impact of Xylene application prepared by the Billings Area Office in the 1970's.

Recent efforts in preparing these documents brought to the attention of FIIP staff some of the requirements that have been overlooked on past actions. An awareness
of requirements for environmental planning on future activities has also been realized. Although the staff has been sensitized to the necessity for NEPA compliance, the commitment to implementation has not been made. This is due to several reasons discussed below.

At the present time, the needed expertise for environmental compliance does not exist on the project staff. For example, the FIIP professional staff is comprised totally of civil and electrical engineers . This lack of expertise causes a reluctance on the part of existing FIIP staff to initiate or be involved in any NEPA interdisciplinary compliance effort. Although it is not essential that FIIP have a broad spectrum of disciplines on staff it is necessary that the expertise necessary to recognize planning needs and to coordinate document development be available in order to facilitate time progress on FIIP activities.

It is apparent that planning and budgeting for FIIP activities has not provided for integration of NEPA compliance. As a result, FIIP has virtually no record of environmental compliance in decision making. Furthermore, FIIP management has been reluctant to initiate activities that would jeopardize or alter on-going service delivery.

The NEPA compliance documents developed for Irrigation Division activities to date have been accomplished through the direct involvement of the PAO staff. An Environmental Protection Specialist was detailed for a six month period beginning in December 1984 to assist FIIP with environmental compliance.

However, that detail terminated in June 1984 and the employee was transferred. Subsequently, no effort has been made to complete the initiated work. As a result FIIP activities are continuing without the benefit of adequate and required environmental planning.

It is essential that all levels of BIA administration recognize the need for accomplishment of procedural environmental compliance. Support and direction at administrative levels higher than FIIP, as well as the appropriate management commitment by FIIP, is necessary if NEPA compliance is to be effectively achieved. Accountability for compliance could be achieved, in part, through the establishment of personnel performance standards which reflect environmental compliance requirements.

SUGGESTIONS ON IMPROVING COMPLIANCE

Commitment

The staffing and compliance record at FIIP indicates an insufficient commitment to environmental planning and compliance. Although the National Environmental Policy Act has been in effect since 1969, it has only been within the last year (1984/1985) that attention has been given to environmental planning/compliance as part of FIIP operations. The commitment, and steps necessary to effect the commitment, to achieve adequate environmental planning/compliance must be made.

Budget

FIIP has a responsibility to provide both electrical power and irrigation water to users. It is not practicably feasible for FIIP to hold these required services in abeyance while environmental compliance is achieved. Therefore, it is essential that adequate funding be available so that environmental compliance can be achieved in a timely manner without interrupting service delivery. Neither the procedural nor substantive aspects of environmental compliance have been reflected in the development of FIIP budgets. This failure to budget for compliance activities indicates a lack of the commitment necessary to achieve adequate compliance and jeopardizes continuity of service.

Environmental compliance must be recognized as a legitimate and necessary cost of carrying out project business. Such costs may become substantial in the near

future due to the need to acquire the staff and the resource data base required to develop a management plan for normal operation and maintenance activities. Additionally, the major rehabilitation work needed on irrigation facilities will require environmental compliance.

Approximately $300,000 was requested by PAO in the BIA Fiscal Year 1986 budget for management planning, including associated environmental compliance. At the time of this writing, no decision had been made as to whether part or all of the requested funds will be available.

Training

FIIP staff expertise in environmental compliance varies from adequate on such issues as pesticide use and PCB handling, to minimal on issues relating to procedural NEPA compliance and associated environmental protection law and regulation. Training at FIIP appears to have been traditionally limited to those issues which management considered essential for carrying out the project functions of water and power delivery.

Due to recent public interest in environmental protection, particularly on the part of the CSKT, an effort has been made by FIIP management to inform the staff of the environmental laws and policies applicable to FIIP activities. Within the last six months FIIP management and supervisory staff were provided a short introductory course on environmental compliance issues by the Portland Area

Environmental Coordinator. In addition, four FIIP management staff received a two day training program on NEPA compliance provided by a private consultant. If FIIP activities are to be carried out in an environmentally sensitive manner, it is essential this initial training effort be continued, expanded, and updated periodically. Training of this type should be obtained by FIIP management in conjunction with the Portland Area Environmental Coordinator.

There is a need to provide adequate introductory training to both the seasonal and permanent work force on environmental issues related to their job functions. Issues that could be covered in such training include recognizing the locations and value of environmentally sensitive areas. Many of the seasonal irrigation staff return year after year. Together, the temporary and permanent employees comprise a work force which could improve the environmental sensitivity of day-to-day project operations.

Guidelines

The DOI and BIA regulations and policy guidance documents for procedural NEPA compliance are available at FIIP offices in Polson and St. Ignatius. In addition, documents necessary for addressing issues such as pesticide application and handling of hazardous substances, are available to the staff. However, FIIP management has not maintained an up-to-date source of environmental compliance documentation applicable to FIIP activities.

The most obvious voids are in the area of permit requirements and environmental quality standards that would assist in defining the scope of project operation. The absence of this type of information is due to two factors. First, is the lack of awareness of need on the part of FIIP management. Second, is the lack of appropriate environmental compliance personnel on the project staff.

The broad scope of issues included in environmental compliance is directly reflected in the volume and complexity of written direction. Much of the needed source information can be obtained through subscription services such as the Bureau of National Affairs, Inc. If an acceptable level of environmental compliance is to be achieved, it is imperative that FIIP management secure and maintain the necessary guidance material as well as assure that the FIIP staff develop a familiarity with the material that is reflected in job conduct.

Coordination

The CSKT, the BIA-Flathead Agency, and the BIA-FIIP, have overlapping interests and responsibilities relative to a common resource base. There is, therefore, a need for close coordination, communication and support among these three entities in the protection and use of that resource base. In the past, there was little communication between FIIP and its counterparts which resulted in poor working relationships. Such a situation particularly hampers compliance with NEPA. This situation recently began to change at the direction and encouragement of the Portland Area Director.

Since FIIP compliance with NEPA is mandatory, it is imperative that FIIP management promote utilization of the interdisciplinary staff resources of CSKT and Flathead Agency in project planning activities. This approach would achieve efficient use of staff expertise among the three entities and would serve to improve working relationships.

The balancing of resource development/use interests would also be achieved by use of such an interdisciplinary approach. The potential for conflict, and the associated expenditure of staff time and funds spent in resolution of these conflicts, would be reduced. To accomplish this objective, it is essential that the three entities develop
operational agreements arrangements that provide for such things as work load projections and compensation for staff time and support services.

Staffing

It is recommended that an Environmental Protection Specialist position under the direction of the Project Administrator be established. This person would serve to coordinate the development of procedural NEPA compliance documents as well as other substantive environmental compliance. This position should be filled at the GS-12 level with a person having a broad background in environmental management and with demonstrated communication/coordination skills. Assigning environmental responsibilities to the existing staff, who have neither the training, experience or time with their present workload, would be unacceptable. Under a scenario of this type, environmental compliance requirements would not be adequately addressed.

Due to the anticipated workload, particularly in the Irrigation Division, two additional career-ladder positions are needed, with the journeyman level being GS-11. In establishing these positions, it must be remembered that there will be substantial cost requirements, in addition to salary, that must be taken into consideration. These two staff positions would be involved in environmental document writing and planning, implementation of environmental mitigation measures, and in environmental protection activities. At least one of the positions should be filled with an aquatic ecologist/fisheries biologist. This type of background is critical due to the nature of the Irrigation Division activities and the associated conflicts that often develop as a result of operational impacts to the aquatic environment.

Although, environmental compliance requires the involvement of a variety of disciplines, it does not appear that there is a need to have all disciplines on the FIIP staff. A variety of expertise is available at the Flathead Agency, CSKT, as well as BIA Portland Area, that can be drawn on as needed. Utilization of this staff resource would improve coordination, as well as facilitate the efficient use of staff capability.

A suggestion was made during the review regarding the potential for one environmental coordinator position to serve both Flathead Agency and FIIP. This concept appears to have some merit with respect to improving coordination/communication between Agency and FIIP. However, such a common position would have two supervisors, and could have a high probability for

conflict in work priorities. It is suggested that the Project Administrator explore the possibilities of such an arrangement further.

Management Plan

It is recommended that a management plan, and an associated comprehensive NEPA document, for day-to-day operation and maintenance be developed. The alternative would be to develop NEPA documentation on each individual FIIP activity. The latter alternative is unattractive at this time due to the amount of rehabilitation work and associated environmental planning that will be necessary in the near future. Such an approach would result in many piecemeal documents.

There is also a need to develop an emergency procedures and associated NEPA documentation to provide for efficient resolution of emergencies such as pesticide spills, floods, droughts and vandalism. In addition, to accomplishing environmental benefits, such a procedure would serve to limit BIA liability for damages resulting from FIIP activity.

Oversight

The review of FIIP compliance was directed at field operations. However, many of the individuals interviewed, FIIP employees as well as those served by FIIP, directed criticism at PAO, the BIA Central Office, and the DOI Portland Regional Solicitor's Office regarding such issues as contract administration and personnel actions. Although the issues addressed in the criticisms were not necessarily specific to environmental compliance, concerns expressed are applicable.

Adequate support must be provided to the FIIP if an effective environmental compliance program is to be developed. This support must be provided in a timely and effective manner. Due to the diverse, complex and comprehensive nature of environmental issues, support and assistance is required in a variety of program areas such as, engineering, legal, financial and natural resources.

Necessary support services are not readily available from the PAO under present staffing conditions. The PAO Environmental Service Staff consists of one person. That person is responsible for assisting eleven agencies, three irrigation projects, and one field office with procedural NEPA compliance. The position is also responsible for pesticide application programs, hazardous materials programs, NEPA document reviews and emergency response actions. A project that must deal with issues of the scope and complexity of those associated with FIIP operation, demands more attention than can be provided under this situation. If the management of FIIP is to directed to bring its programs into environmental compliance under the direction of the BIA, the support capability must also be adjusted accordingly.

Contracting

Consideration should be given to contracting for services to bring FIIP into environmental compliance. This is recommended considered because of the state of procedural NEPA compliance at FIIP, the extensive amount of rehabilitation work to be completed, and the limited BIA staff available. This procedure would be particularly appropriate for the scope of work involved in development of a management plan and associated NEPA compliance.

Other required environmental planning actions may also be addressed by contracting. For example, in the case of compliance with the Fish and Wildlife Coordination Act on irrigation division activities, it is required that the USFWS be consulted in FIIP planning and that associated costs be included as project costs. The assistance of the USFWS should be obtained through normal contract procedures to assume timely accomplishments of identified planning tasks.

If contracting procedures are to be used to achieve FIIP planning needs, BIA must assure that funds are available in a timely manner so that activity accomplishment is facilitated. This requires a management commitment reflected in the form of an environmental planning budget.

ENVIRONMENTAL COMPLIANCE UNDER ALTERNATIVE MANAGEMENT

BIA functions as the federal trustee for protection of the resources of CSKT and as operator of the FIIP. This dual role has resulted in substantial environmental compliance responsibility. If BIA's direct involvement in the operation of FIIP changes, this change would also be reflected in BIA's environmental compliance responsibilities. For example, the transfer of FIIP operation to another entity could result in a reduction in the need for BIA environmental compliance staff and funding.

In the event another entity takes over operation of FIIP, BIA's trust function would remain unchanged. The project would still be physically located within the Flathead Indian Reservation. BIA's trustee role in assuring environmental protection

would continue. BIA's role would, however, be limited to oversite to assure the operating entity accomplished both procedural and substantive environmental compliance on trust property. Only in those cases requiring a federal decision on the part of a BIA administration would BIA get involved in procedural NEPA compliance.

The need for project environmental compliance would not be reduced or eliminated if FIIP were under management other than BIA. Environmental compliance responsibilities, both procedural and substantive would continue to be applicable to the operation of FIIP, with some possible exceptions under private management. For example, FIIP operation would still be required to comply with water quality standards, to obtain appropriate environmental permits and to adequately train and certify project staff in the handling and application of toxic substances. In addition, if FIIP operation were placed under another federal agency, procedural NEPA compliance would continue to be required. The USBR has, for example developed a National Environmental Policy Act Handbook, September 1984, which provides policy guidance very similar to that developed by BIA in 30 BIAM, Supplement 1. As a result, it is unreasonable to expect that the FIIP operation and maintenance costs associated with environmental compliance would be eliminated or substantially reduced should FIIP be transferred from BIA administration.

It should also be noted that any administrative decision to transfer FIIP operational responsibility to another entity would require NEPA compliance. Appropriate staffing and funding should be provided to accomplish NEPA compliance on a transfer decision in a timely and effective manner.

CONCLUSION

FIIP carries out a variety of activities in the performance of power and irrigation water delivery that have potential for impacting the environment of the Flathead Reservation and the surrounding area. These potential impacts are diverse and numerous as the functions of FIIP are an integral aspect of most resource development and management on the Flathead Reservation.

FIIP was initiated and developed in an era when little concern was given to the environmental consequences of construction and resource development activity. This philosophy has been perpetuated in the subsequent operation of the project. However, unlike other federal construction and resource management agencies, FIIP has not undergone the change in environmental awareness brought about by NEPA and the associated environmental laws enacted in the late 1960's and early 1970's. As a result, this review found near total lack of direction and accomplishment relative to implementation of environmental planning and protection on past and present FIIP activities. Although some environmental compliance efforts have recently been initiated, FIIP will be in transition for some time, as problems with budgeting and staffing inhibit BIA ability to institute substantial, changes in program direction quickly.

At the present, FIIP seems to lack the administrative commitment needed to accomplish both procedural and substantive compliance with the general body of environmental law. If this attitude is to change, FIIP management must

receive the direction and support necessary to assure that an acceptable level of environmental compliance is within project capability. In addition, a method of accountability must be established whereby accomplishment can be measured.

Apart from the existing status of environmental compliance by FIIP, some consideration is being given to transfer of FIIP administration to an entity, federal or non-federal, other than BIA. In this regard, it must be remembered that although the scope of compliance may vary, an acceptable level of compliance with environmental law is required of any management entity. The present status of compliance would not be acceptable under any alternative management scheme.

FLATHEAD INDIAN IRRIGATION PROJECT
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INTRODUCTION

The Legal Committee was requested to review and comment on several questions raised during the course of the Comprehensive Study of the Flathead Indian Irrigation Project (FIIP) conducted by the Comprehensive Study Team at the request of the Secretary of the Interior. The questions originated from various sources, including Committee Team members, Bureau of Indian Affairs and Bureau of Reclamation staff, Confederated Salish and Kootenai Tribal officials and staff, and the Flathead Joint Board representing the water users. All of the questions submitted were reviewed by the Study Team and the Legal Committee to determine those relevant to issues addressed in the Study. Some of the questions raise issues that are of a general, theoretical nature which cannot be adequately addressed in detail outside the context of specific facts. In responding to these questions we have attempted to outline the basic issues and indicate what further research and analysis will be necessary before any final conclusion can be reached.

ANALYSIS

Question No. 1

Can the Irrigation and Power Divisions of FIIP be transferred to the Bureau of Reclamation or another Interior agency without authorizing legislation?

Response

The Bureau of Reclamation was responsible for initial construction and operation of FIIP. Since 1924, FIIP has been operated and maintained by the Bureau of Indian Affairs. The question is whether FIIP can now be administratively transferred to the Bureau of Reclamation without additional legislation specifying the terms and conditions under which the Bureau of Reclamation would be authorized to operate the project.

Congress has charged the Secretary of the Interior with the authority and responsibility to operate and manage Indian irrigation projects. Generally the statutes do not designate particular Interior agencies to run the projects. See 25 U.S.C. § 381-390. One exception is found in the Act of April 4, 1910, 36 Stat. 271, 25 U.S.C. § 384, which provides that the "Commissioner of Indian Affairs, under the direction of the Secretary of the Interior, may employ superintendents of irrigation who shall be skilled irrigation engineers, not to exceed seven in number." These appointments are discretionary and must be made under the direction of the Secretary.

With respect to specific statutes affecting FIIP, the delegation by Congress is generally to the Secretary of the Interior. See, e.g., Act of May 25, 1948, 62 Stat. 269, and Act of December 23, 1981, 95 Stat. 1931, 1404. Other statutes relating to the Project refer to the authority of Bureau officials. For instance, a 1924 appropriation act authorizes the expenditure of funds for continuing construction, maintenance and operation of FIIP under the direction of the

Commissioner of Indian Affairs. 43 Stat. 402. However, functions of the Bureau of Indian Affairs officials are subject to the direction and authority of the Secretary. By the terms of the Reorganization Plan No. 3 of 1950, "all functions of all other officers of the Department of the Interior and all functions of all agencies and employees of such Department" were transferred to the Secretary. See Section 1, Reorganization Plan No. 3 of 1950, effective May 24, 1950, 15 F.R. 3174, 64 Stat. 1262, as amended June 1, 1971, 85 Stat. 76 (printed in Appendix to Title 5, U.S. Code).

We are not aware of any explicit statutory or regulatory limitation that would preclude the Secretary from transferring authority to operate FIIP from the Bureau of Indian Affairs to the Bureau of Reclamation. In fact, Section 2 of the Reorganization Plan No. 3 of 1950 provides that "the Secretary of the Interior may from time to time make such provisions as he shall deem appropriate authorizing the performance by any other officer, or by any agency or employee, of the Department of the Interior of any function of the Secretary, including any function transferred to the Secretary by the provisions of this reorganization plan."

It should be noted, however, that there are more than 75 substantive statutes and appropriation measures affecting FIIP construction and operations, and each of these legislative provisions should be reviewed to ensure that there are no constraints on the Secretary's authority to direct which Interior agency will fulfill the Secretary's responsibilities.

While there is probably no legal impediment to an administrative transfer, there may be questions regarding the extent to which a transfer would make FIIP irrigation operations subject to the requirements or constraints in existing legislation applicable to the Bureau of Reclamation, including various provisions of the reclamation laws regarding construction, maintenance and operation of irrigation works. See generally 43 U.S.C. § 372 et seq. An irrigation "project", as defined in the reclamation laws includes facilities operated or maintained by the Secretary through the Bureau of Reclamation for the reclamation of arid lands or other purposes. 43 U.S.C. § 485a(c). If upon transfer FIIP was regarded as a Bureau of Reclamation "project," present FIIP operations could be impacted by such things as application of excess land limitations, assessments for construction and operation and maintenance charges, and the fact that Indian preference under 25 U.S.C. § 472 is not applicable to the Bureau of Reclamation.

There may also be a question whether the Bureau of Reclamation can be authorized by the Secretary to operate the power division of FIIP. The Department of Energy Act, 91 Stat. 567, 42 U.S.C. § 7101 et seq, transferred to and vested in the Secretary of Energy, among other things, "all functions" of the Secretary of the Interior ("and all officers and components of the Department of the Interior") with respect to "the power marketing functions of the Bureau of Reclamation, including the construction, operation, and maintenance of transmission lines and attendant facilities." Arguably this provision transferred then-existing Bureau of Reclamation functions and does not necessarily preclude the Secretary from using the authority under the Reorganization Plan to transfer Bureau of Indian Affairs

functions related to FIIP to the Bureau of Reclamation. However, a more detailed analysis of statutes applicable to the Bureau of Reclamation (and, in some cases, the legislative history of those acts) would be necessary to determine that a transfer of functions can be made, or that a transfer can be structured in such a way as to avoid conflicts with existing requirements applicable to operations managed by the Bureau of Reclamation.

Question No. 2

If the administrative and management responsibilities of FIIP were transferred to an Interior Agency other than the BIA, who would provide federal oversight to ensure that Indian property rights are protected?

Response

Since Congress has charged the Secretary of the Interior with the responsibility for management and operation of Indian irrigation projects and also the responsibility to fulfill the trust responsibility of the United States in regard to Indian irrigation, the Secretary remains the ultimate authority to protect Indian trust resources and property rights. Thus, it is the responsibility of the Secretary to delegate to an Interior agency the responsibility to fulfill the trust responsibility as well as the authority to operate and manage Indian irrigation projects.

Question No. 3

Do any federal, state or tribal regulatory agencies have authority over operations of FIIP irrigation and power divisions?

Response

Only the federal government has regulatory authority over the operation and management of FIIP. Pursuant to federal statutes, the Department of the Interior, through the Bureau of Reclamation, constructed the Flathead Indian Irrigation Project. Since 1924, FIIP has been operated and maintained by the Bureau of Indian Affairs. As a federal agency administered by the BIA, FIIP is subject to the general statues, rules and regulations, and administrative procedures which govern BIA actions regarding budget and finance, procurement and property management, and personnel matters (including Indian preference). The BIA has full management authority, pursuant to numerous federal statutes and Department delegations of authority, to administer FIIP, both with respect to the operation and maintenance of the irrigation system and the management of the power distribution system, including the regulatory-type function of setting power rates.

While FIIP is not under the direct authority of any other federal agency (or state or tribal agency), FIIP, in its management and operational activities, must adhere to the provisions of the various statutes and applicable regulatory programs administered through other federal agencies. For instance, as pointed out in the Environmental Report, FIIP operations may be subject to environmental planning and regulatory procedures as well as substantive requirements for environmental protection and water quality imposed by the Corps of Engineers and the Environmental Protection Agency, and to wildlife protection measures adopted by the Fish and Wildlife Service pursuant to federal statute. It is impossible to catalog each and every federal statute and regulatory program which may govern or

impact FIIP operations. The applicability of such laws, where questions arise, can only be addressed on a case-by-case basis.

Question No. 4

What due process and equal protection rights are available to individuals affected by the operation of FIIP?

Response

FIIP, as a governmental entity, is subject to the same constitutional limitations as any other governmental agency, including due process and equal protection constraints with respect to the impact of FIIP activities on individuals or their property. There are procedural safeguards included in the Department's regulations which provide for administrative review of Interior agency decisions. For example, a decision of the Project Engineer may be appealable to the Area Director under 25 C.F.R. § 171.23, with further appeals to the Assistant Secretary for Indian Affairs or the Interior Board of Indian Appeals pursuant to 25 C.F.R. Part 2. 25 C.F.R. § 2.3 provides that any interested party adversely affected by a decision of a Bureau official may initiate an appeal. Generally, administrative remedies must be exhausted before an individual may seek federal court review of agency action.

Question No. 5

Does FIIP have valid easements and rights-of-way for the property used or occupied by FIIP facilities?

Response

The question of rights-of-way is discussed in of the Management Committee Report. Several general questions have been raised. Apparently, it is claimed that FIIP may not have valid or properly documented rights-of-way for canals and ditches utilized in the irrigation system of the project. In addition, we understand that the Confederated Salish and Kootenai Tribes claim that the 1948 Act, which provided payment for a permanent easement for past and future usage of tribal lands for the physical works and facilities of the irrigation and power systems of the project, authorized an easement only for limited purposes and consequently FIIP must purchase additional easements for the full irrigation and power uses of the FIIP system.

It is impossible to analyze these claims without more detailed factual information. We have not reviewed any documentation regarding specific instances where it is alleged that there is not a valid right-of-way. It is our understanding that the Bureau has not conducted a comprehensive inventory of FIIP property records to determine the status of FIIP rights-of-way and easements. In order to determine whether FIIP has valid rights-of-way, or whether there are any limitations on FIIP use of acquired easements or rights-of-way, it would be necessary to review in detail the 1948 Act and other applicable legislation, the legislative history of that legislation, the procedure used by FIIP to acquire easements and rights-of-way and a documented history of the status and use of each easement or right-of-way in question.

As a general matter, the need for additional rights-of-way depends on the nature and extent of the specific use in question. The provisions of 25 C.F.R. Part 171 deal with the operation and maintenance of Indian Irrigation Projects operated or subject to administration by the Bureau of Indian Affairs. 25 C.F.R. § 171.12 provides:

> (a) Rights-of-way reserved for the project's irrigation system are of sufficient width to permit passage and use of equipment necessary for construction and proper operation and maintenance of the project's canals, laterals, and other irrigation works.
> (b) In the construction of new irrigation projects or extension of existing projects, rights-of-way which have not been reserved across Indian lands will be obtained in accordance with Part 169 of this chapter.

Thus the existing reservation of a right-of-way for Indian irrigation systems includes the land occupied by the canal as well as land on both sides of the canal sufficient to permit the operation of maintenance equipment. Rights-of-way necessary for the construction of new projects or the extension of existing projects must be acquired pursuant to 25 C.F.R. Part 169, which prescribes the procedures, terms and conditions under which rights-of-way over and across tribal and individually owned land may be granted. Any question with respect to specific uses would have to be evaluated on a case-by-case basis to determine the validity of the use under the existing reservation and the necessity for acquiring additional rights-of-way pursuant to § 171.12.

Question No. 6

Does FIIP have authority to sell power to off reservation users?

Response

25 C.F.R. § 176.6(a) provides that the project is authorized to extend its overhead distribution facilities to serve permanent installations "within its service area," provided the extension is physically and economically feasible. There is no provision in the statutes and regulations affecting the operation of the project limiting the "service area" of the project to on-reservation sales only. For example, Section 6 of the Act of May 25, 1948, 62 Stat. 269, 273, provides that appropriations of power revenues from the project may be made for "extensions to the power system as the Secretary of the Interior may deem requisite for the provision of electrical service to persons whose application for such service could not otherwise be complied with in due course of business." Likewise, other acts authorizing the construction, maintenance and operation of the irrigation and power system do not limit the service area of the project. See, e.g., the Act of May 10, 1926, 44 Stat. 464-465; the Act of March 2, 1928, 45 Stat. 200, 212; Section 3 of the Act of August 7, 1946, 60 Stat. 895, 25 U.S.C. § 385c. In the absence of any specific limitation on the extent of the service area, it is logical to infer that the "service area" of the project was intended to comprehend a practical, integrated system for power production and distribution maximizing the benefits of the project for the Indians of the reservation. In other words, the project can operate more efficiently and economically through a power system structured to meet the demand of an integrated area that covers the reservation and closely adjacent areas rather than through a system formed solely and exclusively by the boundaries of the reservation.

Thus, in addressing any specific request for service, whether on or off the reservation, the policy decision to be made is whether the requested service forms a logical extension of the service area and maximizes the benefits of the project for the Indians of the reservation.

Question No. 7

What requirements must be met before the management and operation of the irrigation works can be turned over to the landowners pursuant to Section 10 of the Act of May 29, 1908, 35 Stat. 444, 451?

Response

It is impossible to detail in abstract, general terms the circumstances under which the Secretary would be authorized to turn over operation and maintenance of the project to the irrigation districts. The "turnover" provision, embodied in Section 15 of the 1908 Act, states that "when the payments required by this Act have been made for the major part of the unallotted lands irrigable under any system and subject to charges for construction thereof, the management and operation of such irrigation works shall pass to the owners of the land irrigated thereby, to be maintained at their expense under such form of organization and under such rules and regulations as may be acceptable to the Secretary of the Interior."

This provision raises several questions which would have to be answered in each case. First, it must be determined whether the transfer of the operation and maintenance of the irrigation works can occur only when all land, irrigation system

construction costs, and currently due irrigation system operation and maintenance charges have been paid, or whether transfer can occur when only certain of the various charges have been paid. Second, it must be ascertained that all payments have been made for the "major part" of the affected unallotted lands. It is clear from the context that "major part" refers to full payment for a major part of the lands comprising the system and does not mean a major part of the aggregate amount of payments required to be paid. "Major" commonly refers to things greater in importance, quantity, extent or value, and thus does not lend itself to precise numerical calculation. Therefore a determination that full payment has been made on a "major part" of applicable lands may require an analysis of the relative importance and value of the various unallotted lands comprising the irrigation system. Third, because the turnover provision specifically applies only to those irrigation systems serving unallotted lands, it would appear that the question of turnover would have to be analyzed separately with respect to each qualifying irrigation system forming a discrete operational segment serving unallotted lands. Finally, the question of turnover would also involve review and approval of the proposed form of organization and the regulations which are to govern the operation of the irrigation system.

In sum, determining that all required payments had been made for a major part of the unallotted lands forming the irrigation system, and that the proposed organizational structure and operating procedures are acceptable must be analysed on a case-by-case basis as requests for turnover are made.

Question No. 8

What standard must FIIP use in determining the appropriate rate to charge for the sale of the electrical energy from the power division?

Response

Subsection 2(g) of the Act of May 25, 1948, 62 Stat. 269, 270 provides:

> Electric energy available for sale through the power system shall be sold at the lowest rates which, in the judgment of the Secretary of the Interior, will produce net revenues sufficient to liquidate the annual installments of the power system construction costs established pursuant to subsection (f) of this section, and (for the purpose of reducing the irrigation system construction costs chargeable against the lands embraced within the project and of insuring the carrying out of the intent and purpose of legislation and repayment contracts applicable to the project) to yield a reasonable return on the unliquidated portion of the power system construction costs, and (for the same purpose) to yield such additional sums as will cover the amount by which the wholesale value of the electric energy sold exceeds the cost thereof where such excess is the result of the electric energy having been obtained on a special basis in return for water rights or other grants.

Subsection 2(g) of the 1948 Act establishes a standard for the Secretary of the Interior to use in establishing power rates at the "lowest rate" which will produce "net revenues" sufficient to: (1) liquidate the annual installments of the power system construction costs, and (2) reduce the irrigation system construction costs chargeable against the lands embraced within the project.

Subsection 2(g) effectively establishes both a ceiling and a floor on FIIP power rates. The maximum rate must be the "lowest rates" which produce "net revenue" to accomplish that which is set forth in Subsection 2(g). (Subsection 2(b) provides that "net revenue" is determined by deducting from "gross revenues" the power

system operation and maintenance expenses and reserve funds. Therefore, these costs also have to be included in the rate calculation to determine net revenue necessary to fulfill the requirements of the act.) The minimum rate is that sufficient to pay the following:

1. Subsection (f) as referred to in Subsection 2(g) provides for the liquidation of construction costs of the power system in annual installments in a manner which will provide for liquidation thereof over a period of the useful life of the power system as a whole or not exceeding 50 years from January 1, 1950. Therefore, the rates must be sufficient to pay these costs.
2. The net revenues must also be sufficient to yield a reasonable return on the unliquidated portion of the power system construction costs for the purpose of reducing irrigation construction costs chargeable to lands within the Project.
3. The rates must be sufficient not only to cover the costs listed in 1 and 2 above, but also to yield such additional sums being the amount that the "wholesale value of the electrical energy" exceeds the cost of power as a result of electrical energy having been obtained at lower rates because of power being obtained for water rights or other rights granted.

The process used to establish the appropriate rate should involve consideration of all three of the above factors, not just one or two. From a review of the Hearings conducted on the legislation, it is obvious that Congress intended that the Secretary adhere closely to the above guidelines for setting rates. Congress was

concerned that otherwise the power rates could vary from time to time depending on the discretion of the Administrators then operating the Project. Congress eliminated such discretion by specifying the elements to be considered in computing rates.

The House Report on the legislation, H. Rep. No. 1691, 80th Cong., 2nd Sess. (1948), explained the purpose of Subsection 2(g) as follows:

> [This Subsection] provides the basis upon which rates for electric energy sold through the power project system shall be fixed. The first part of this subsection provides that the power rates shall produce net revenues sufficient to repay all construction costs incurred on account of the power system of the project.
>
> This language in this subsection--"for the purpose of reducing the irrigation system construction costs chargeable against the lands embraced within the project and of insuring the carrying out of the intent and purpose of legislation and repayment contracts applicable to the project"--is designed to make plain the intention of the committee that the net profit provided for in the succeeding portions of this subsection is intended to be used for the purpose of repaying a substantial portion of the reimbursable irrigation construction costs of the project. (Id., at 3.)

The final provision of Subsection 2(g) directs that an "additional sum" shall be yielded from net revenue on any cheap block of energy such that the rate charged will reflect the wholesale value of the energy. The purpose of this provision was explained in Flathead Irrigation Project: Hearings before the House Subcommittee on Indian Affairs of the Committee on Public Lands on H.R. 658, H.R. 4736, H.R. 5669, S. 1870, 80th Cong., 2nd Sess. (1948). Herbert J. Slaughter of the Office of the Solicitor, Department of the Interior, stated:

> This last clause is not intended when it speaks of wholesale--it does not cover the selling of the energy so much as it does the acquiring of the energy. In other words, the Flathead project does not produce most of the electric energy it sells. It gets it under a contract with the Montana Power Co., which because of various water right transactions and other special features when that contract was made, the Flathead project gets

> its power from the private utility at an exceptional low rate. Now, the purpose of this clause is to enable the water users to realize on that profit that comes in because of the fact that the power is bought for less than it is reasonably worth. It does not make any difference whether that power is sold ultimately at resale or wholesale or any other way. Under this formula the differentiation is still something that the water users are entitled to. (Id., at 50-51.)

Mr. Slaughter also stated:

> I believe it has been probably explained to you fully yesterday that the connection with the construction of the Kerr Dam various contracts were entered into under which the Flathead Indian Irrigation system gets a very large block of electric energy at a very low rate from the private utility that produces it. And under this language here, the difference between what the project pays for that energy and the reasonable value of that energy; that is, what it will cost it if the system had to buy it in the open market instead of getting it under this special contract, is recognized as being a second element which ought to be included in the rate charges, and ought to be available for assistance to the irrigation water users. Now, that is the sum and substance of Subsection (g). (Id., at 46.)

That Congress intended the provisions of the 1948 Act to establish a guideline, "yardstick" or "standard" for establishing power rates is evident throughout the report of the Hearings. (See Id., at 45-49.) The rates established by FIIP should reflect consideration of the elements necessary to obtain the minimum revenue required by the terms of the Act.

Question No. 9

Under the priority schedule for application of revenue from the power system, as set out in Section 2(h) of the 1948 Act, should all unpaid power and irrigation costs (all unmatured installments) under subsections (3) and (4) be paid before any payments are made to items in subsections (5) and (6) of the priority list?

Response

Subsection 2(h) provides:

> All net revenues hereafter accumulated from the power system shall be applied annually to the following purposes, in the following order of priority:
>
> (1) To liquidate all matured installments of the schedule of repayments for construction costs of the power system;
> (2) To liquidate all matured installments of the schedule of repayments for construction costs of the irrigation system of each division, on an equal per acre basis for all irrigable lands within the division;
> (3) To liquidate unmatured installments of the schedule of repayments for construction costs of the power system which will mature at a date, or not later than the maturity of any unliquidated installment of irrigation system construction costs;
> (4) To liquidate unmatured installments of the schedule of repayments for construction costs of the irrigation system of each division which will mature at a date prior to the maturity of any unliquidated installment of power system construction costs, on an equal per acre basis for all irrigable lands within the division;
> (5) To liquidate construction costs chargeable against Indian-owned lands the collection of which is deferred under the Act of July 1, 1932, (Stat. 564; 25 U.S.C., Sec. 386a); and
> (6) To liquidate the annual operation and maintenance costs of the irrigation system.

Subsection 2(h) of the 1948 Act establishes a priority system for the use of net revenues from the power system. The first four priorities focus on the repayment of construction costs. On its face, the Act indicates that the highest priority should be exhausted before using net revenues on the next in succession of priorities. The issue here is whether priorities (3) and (4) require payment of <u>all</u> unmatured installments or simply the next succeeding unmatured installment before net revenues can be applied to priorities (5) and (6). In other words, whether, all the construction costs--both unmatured as well as matured installments--should be repaid before applying net revenues to the deferred liquidated construction costs chargeable against Indian lands or to the annual O&M costs of the irrigation system.

The purpose of Subsection 2(h) was for the United States to receive as a priority the money it had invested in both the power project and the irrigation project. The first priorities (1) and (2)) are to insure that installments that had become due on the power and irrigation projects would be paid. Net revenues from power can be used for no other purpose until all matured installments are fully paid. Secondly, if net revenues remain, they are to be applied in such a manner that unmatured installments on both power and irrigation construction costs would be paid up to the same maturity date. However, if remaining net revenues are alternately set off against the next succeeding unmatured power and irrigation system costs to the next maturity date in the schedule of repayments, until all unmatured installments are paid, then net revenues cannot be applied for payment of deferred liquidated construction costs against Indian-owned lands or annual O&M charges until all construction costs of both power and irrigation are paid. This would mean, as a practical matter, that net revenues would not be applied to priorities (5) and (6) until the end of the repayment schedule for construction costs. Application of net revenues in that manner would not appear to be consistent with the language of the Act. First, Subsection 2(h) requires application of net revenues to the prioritized items on an annual basis. Second, the purpose of payment to priorities (3) and (4) is to liquidate unmatured installments of irrigation system construction costs and power system construction costs to the same date of maturity. Therefore, it is more logical to interpret the provision as requiring application--on an annual basis--of remaining net revenues to priorities (5) and (6) once payments to priorities (3) and (4) are equalized at the same maturity dates.

Question No. 10

What disposition should be made of net revenues credited to owners of trust class 3 lands in cases where no operation and maintenance assessments accrue to which the proportionate share of net power revenues can be credited under Subsection 2(i) of the 1948 Act?

Response

Subsection 2(i) of the 1948 Act requires that net revenues applied to irrigation construction costs under Subsection 2(h)(2), which are deferred as to Indian lands pursuant to the Leavitt Act of 1932, 47 Stat. 564, 25 U.S.C. § 386a, are to be credited against operation and maintenance charges applicable to those lands. The purpose of this provision is to ensure that the Indian owner of land for which construction costs are deferred receives some benefit from power revenues generated by FIIP.

As a practical matter, in situations where operations and maintenance charges are due from the Indian-owned land, the net power revenues due such land under Subsection 2(h)(2) are used to pay the operation and maintenance charges. However, where construction costs on Indian-owned lands are deferred and no operation and maintenance charges are payable because the land is not receiving water, the credits due such land from net power revenues have been left to accumulate on FIIP books as a credit due the land.

Subsection 2(i) provides that the proportionate share of net revenues are to apply "to any then unpaid or subsequently assessed costs of operating and maintaining the irrigation system which are chargeable against the same lands" (emphasis added). The phrase "any then unpaid or subsequently assessed costs" implies that the proportionate share of net revenues on an annual basis must be left to accumulate as a credit toward payment of future operation and maintenance charges, which may vary from year to year and not equal the proportionate share credited each year. Thus, so long as this land remains in Indian ownership and there is a potential that operation and maintenance costs may be assessed in the future, the statute appears to require that the proportionate share of net revenues be credited and accumulated in the same manner as it is presently. The real issue involves how these funds are to be applied once the land loses trust or restricted status and the deferral of construction costs under the Leavitt Act no longer apply. There is no clear direction from the statute on how to handle this problem. There are several practical alternatives, none of which may be completely satisfactory.

First, net power revenues could be accumulated and used to reduce the deferred construction costs when the land passes into non-Indian ownership. Second, the accumulated net revenues could be paid over to the Indian owner at the time the land passes into non-Indian ownership. Third, at the time the land is sold the accumulated credit could be applied, along with other net revenues, toward satisfaction of the annual payments under Subsection 2(h). It can be argued that the first alternative is not acceptable because Congress intended that the charges deferred under the Leavitt Act be assumed as an obligation of the purchaser at the

time the land is sold. On the other hand, it can be argued that the second alternative is not equitable because net power revenues were not intended to profit the owner of Indian-owned land, but to reduce irrigation charges, and any net revenues not applied in priority number 2 should be passed through for application to the remaining 4 priorities. Because the statute does not provide any clear direction with respect to use of accumulated credits, a more reasonable solution may be to propose legislation which would specifically direct what disposition is to be made of those funds.

Question No. 11

Section (6) of the 1948 Act as amended by Section 112 of the Act of December 23, 1981, 95 Stat. 1404, provides that 20 percent of the gross revenue of FIIP for the preceding year or $750,000, whichever is greater shall be available for the improvements and extensions of the power system. Is this intended to be an annual appropriation?

Response

Section 6 provides:

> Sec. 6. In each fiscal year commencing after the approval of this Act for which an appropriation of the power revenues from the project is made in an indefinite amount pursuant to Section 3 of the Act of August 7, 1946 (60 Stat. 895; 31 U.S.C., Sec. 725s-3), the power revenues so appropriated shall be available, to the extent of not to exceed $75,000, for the purpose, in addition to those other purposes now required or permitted by law, of making such improvements and extensions to the power system as the Secretary of the Interior may deem requisite for the provision of electric service to persons whose applications for such service could not otherwise be complied with in due course of business. Amounts so expended shall be added to the unmatured portion of the

> reimbursable construction costs of the power system in accordance with Subsection 2(f) of this Act, so as not to reduce the net power revenues available for application under Subsection 2(h) of this Act.

It is clear these are to be annual appropriations. The language of the act provides that these appropriations for improvements and extensions of the power system are to be made each fiscal year, and the legislative history reflects that the original figure of $75,000 represented the best judgment as to the maximum appropriation required to extend the system annually. At the hearings on the bill a discussion of Section 6 between Mr. Slaughter, Samuel J. Flickinger, Assistant Chief Counsel, Bureau of Indian Affairs, Congressman Wesley A. D'Ewart, Chairman of Subcommittee on Indian Affairs, and Firman Brown, Project Engineer of the Flathead Indian Irrigation Project, is reported as follows:

> Mr. Flickinger: Section 8 [later Section 6] provides for an additional $75,000 from the revenues of the power for power extensions and improvements which would be in excess of those authorized and obtained under the act of August 7, 1946, 60 Statute 895. That is the act we referred to, or Mr. Slaughter referred to a little while ago, and yesterday I read part of it into the record.
>
> Mr. D'Ewart: Is this $75,000 capital or maintenance?
>
> Mr. Flickinger: That will be capital investment.
>
> Mr. Slaughter: The reason for this is because we have some question in our mind as to whether the terms "Operation and Maintenance" and "Continuation operation, emergency expenses" and the various things referred to in the 1946 act are quite adequate enough to cover this business of adding on these additional customers. So, we felt the way to do it was in effect amending the 1946 act as far as the Flathead project is concerned by specifically spelling this into the extent of $75,000.
>
> Mr. D'Ewart: This is adequate?
>
> Mr. Brown: I believe that will be adequate for a normal year after we rehabilitate the system as it exists today.
>
> (Hearings, supra, at 59.)

Section 6 was amended by Section 112 of the Act of December 23, 1981, 95 Stat. 1404, as follows:

> Notwithstanding the provisions of Section 6 of the Act of May 25, 1948, (62 Stat. 269, 273), appropriations of power revenue of the Flathead Indian Irrigation Project on the Flathead Reservation, Montana, made pursuant to Section 3 of the Act of August 7, 1946, (60 Stat. 895), shall hereafter be available in an amount not exceeding 20 percent of the gross power revenues of said project for the preceding fiscal year, or $750,000, whichever is greater for improvements and extensions to the power system; Provided, that no appropriations shall be made in excess of the Flathead Indian Irrigation power revenues on deposit with the Federal Government.

The revenues provided in Section 112 are to be made pursuant to Section 2 of the Act of August 7, 1946, 60 Stat. 895, which provides that revenues collected from power operations "are hereby authorized to be appropriated annually." This indicates that this was not an appropriation of a fixed amount of $750,000, but rather that Congress intended these funds to be available on an annual basis. We do not believe that the 1981 Act intended in any way to change these from annual appropriations.

Question No. 12

How do "470" expenditures (reinvestment in the project from power revenue for extensions and replacement) affect computation of the annual repayment installment for power construction?

Response

This involves the power revenues not to exceed $75,000 appropriated each year to make improvements and extend the power system as set forth in Section 6 of the

1948 Act and increased to $750,000 in the 1981 Act. The question is how these nonreimbursable costs are to be accounted for in accordance with section 6, which provides that the "amounts so expended shall be added to the unmatured portion of the reimbursable construction costs of the power system in accordance with Section 2(f) of this Act so as not to reduce the power revenues available for application under Subsection 2(h) of this Act."

As noted in the Report on the Power System, the FIIP has accounted for these non-reimbursable expenditures in at least three different ways since passage of the 1948 Act. This issue is discussed in Part G1b(3) of the Financial Review of the FIIP dated April 19, 1984, by the Portland Area Finance Officer. It is the Finance Officer's conclusion that the purpose of this provision is to ensure that the unmatured portion of the obligation remaining is paid off at the same rate that would have occurred if the funds had not been used for improvements and extensions of the power system. Therefore, the "470" amount should not be deducted from the "matured" annual installment, but instead should be added to the "unmatured" amount of the future annual installment only for the purpose of making up in future years the amount that would have been available in current years to apply to priorities in Section 2(h). Thus, current "470" expenditures would effectively increase future annual installments but not increase the total debt owing to the federal government. We believe the Finance Officer's conclusion preserves the repayment obligation to the federal government and is consistent with the language of the act.

Question No. 13

Does the limitation under 6(c) of the Irrigation Districts' repayment contracts apply only to the Districts' apportioned share to be repaid to the U.S. Government or does it apply to the Districts' share added to the Indians' apportioned deferred share?

Response

The question is whether the total installment is first reduced to the maximum due under Section 6(c) of the repayment contract and then further reduced by the amount of the Indian's deferred assessment, or whether the total installment is first reduced by the amount of the Indian's deferred payment and then reduced to the maximum payment. See illustration in Part G 1b(1)(a) of the Financial Review of the Flathead Indian Irrigation and Power Projects dated April 19, 1984, by the Portland Area Finance Officer. The Project is currently using the first alternative which results in a lower payment. The Finance Officer suggests that the second method was intended by Congress.

Section 6(a) provides that the District obligates itself for the repayment to the United States of construction costs against all irrigable land embraced within the Districts "exclusive of Indian-owned lands on which the collection of construction costs is deferred." Consequently, the District is not obligated to repay the United States for costs against Indian-owned land. As such, it appears that the first requirement is to reduce the installment by the amount of the construction costs chargeable against the Indian-owned land. The District under 6(c) is obligated to pay that amount or the maximum payment due, whichever is lesser. Consequently we agree with the Finance Officer's interpretation of the provision.

Question No. 14

Should Indian owned fee patented land be treated the same as non-Indian land for irrigation construction cost assessments?

Response

The Leavitt Act of July 1, 1932, 47 Stat. 564, 25 U.S.C. § 386a, as amended, provides, inter alia, "that the collection of all construction costs against any Indian-owned lands within any government irrigation project is hereby deferred, and no assessment shall be made on behalf of such charges against such lands until the Indian title thereto shall have been extinguished...." The phrase "Indian-owned lands" is not defined and the issue is whether the phrase encompasses only trust property or also includes Indian-owned fee land for purposes of deferral of construction costs. The repayment contracts negotiated between the United States and the irrigation districts under the Act of May 25, 1948, provide as follows:

> Indian-owned lands held under trust or restricted patents shall not be subject to the provisions of the irrigation district laws of the State of Montana. Indian-owned lands for which a fee patent is issued shall, upon their inclusion within the district as provided in Section 7 of their contract, be accorded the same rights and privileges and be subject to the same obligations as other lands within the district, except that such fee patented lands, so long as title thereto remains in an Indian or Indians, shall not be subject to assessment for any construction costs of the project during any period while the collection of construction costs on these lands is deferred under the Act of July 1, 1932 (47 Stat. 564), or by or pursuant to any other act of the Congress.

(See, e.g., Flathead Indian Irrigation District contract dated April 4, 1950, approved May 24, 1950, Section 7, p. 16).

However, this contract provision for deferral of costs on Indian-owned fee patented lands is contrary to the interpretation of the Leavitt Act in Solicitor's Opinions M-36708 and M-36711, both dated July 18, 1967. It is not clear from the record whether this provision of the contract was ever actually applied by FIIP to defer construction costs on Indian-owned fee lands. It is clear that at least since 1967 when the Solicitor's Opinions were issued that FIIP has acted in accordance with the Solicitor's interpretation of the Leavitt Act and has not deferred construction costs on Indian-owned fee lands.

In Opinion M-36708, the Solicitor considered the question whether the Leavitt Act required deferral of the collection of construction charges against the land of an Indian who purchased irrigable land in fee simple in his own name from a non-Indian.

After reviewing the history and background of several statutory provisions regarding assessment of irrigation charges, culminating in passage of the Leavitt Act, the Solicitor concluded that construction charges could not be deferred against land purchased by an Indian in fee simple because "Indian-owned land" in the context of the Leavitt Act means trust or restricted land only, and does not include land held by Indians in fee.

The Solicitor noted that this interpretation was consistent with an earlier Solicitor's Opinion, M-30133, dated April 13, 1939, where the Leavitt Act was interpreted to provide for deferral of construction costs on lands purchased by Indians subsequent to the Act but held by the United States in trust or restricted

status. In other words, Indian land must be placed in trust or restricted fee status before it can qualify for deferral of charges under the Leavitt Act.

Solicitor's Opinion M-36711 holds that fee patented Indian lands should be included in an irrigation district on the same terms and subject to the same statutory provisions with respect to payment of the irrigation costs as lands owned by non-Indians. Building on the conclusion in Opinion M-36708 that the deferral of charges under the Leavitt Act is applicable only to trust or restricted land, the Solicitor noted that as a general matter fee patented lands do not have the same status as trust or restricted lands for purposes of application of various allotment and irrigation statutes. After reviewing several applicable statutes, the Solicitor concluded that the statutes express congressional recognition that cost laws governing Indian irrigation projects are intended to apply only to trust and restricted lands and that therefore the phases "Indian-owned lands" or "Indian lands" do not include fee lands owned by Indians.

The specific factual situation considered in the Solicitor's Opinions involved an Indian purchasing irrigable land in fee simple from a non-Indian. The language of the Leavitt Act precludes assessment of charges against Indian lands "until the Indian title thereto shall have been extinguished." Therefore, it might be argued that even if charges cannot be deferred on land purchased in fee, deferral of charges should continue on trust property after a fee patent is issued, at least until

such time as the fee property leaves Indian hands. First, it is not clear from the record that there are any such lands embraced within the Flathead Irrigation Project.

Furthermore, the basis for the construction of the Leavitt Act in the Solicitor's Opinions, particularly the reasoning outlined in Opinion M-36711, broadly distinguishes between the trust and fee status of Indian lands, rather than the means by which Indians acquire fee title to lands embraced within an irrigation project. Therefore, there is probably no basis--at least under the Solicitor's construction of the Leavitt Act--for treating land which has gone out of trust but still remains in Indian hands differently from land acquired by an Indian in fee from a non-Indian.

Any re-examination of the conclusions reached by the Solicitor in the 1967 opinions would have to consider not only the same statutory provisions analyzed in the prior opinions, but also the Project's practice regarding deferral of irrigation charges, including application of the contract provision prior to 1967. Because the Leavitt Act has general application at all Bureau irrigation projects, any reassessment of the 1967 opinions would have to consider the impact of the interpretation of the Leavitt Act on deferral practices at all Bureau irrigation projects.

Question No. 15

Is the deferred irrigation construction cost on Indian lands taken out of trust cancelled by default because no arrangements were made for repayment?

Response

The Leavitt Act of 1932, 25 U.S.C. 386a, clearly provides that construction costs against any "Indian owned" land are to be deferred and no assessment made to collect the charge until the "Indian title" to the land has been extinguished.

It is our understanding that a lien is listed and recorded on the fee patent when issued, but that in the past no action has been taken administratively to arrange for payment. Under these circumstances, such lien may still be collectible unless barred by a statute of limitation. In each case where the land has been patented into non-Indian ownership the circumstances surrounding each individual case should be examined to determine if the Project retains a right to enforce collection. As to future cases where land with deferred construction costs is about to pass into non-Indian ownership, arrangements should be made for the payment of such deferred costs before the sale is approved.

ELECTRIC POWER

FOR THE

FLATHEAD INDIAN IRRIGATION PROJECT

AN EVALUATION OF

THE POWER SYSTEM AND POWER DIVISION

OCTOBER 1985

EDWARD FITZGERALD DIBBLE, CONSULTING ENGINEER

REDLANDS, CALIFORNIA

AND

ENGINEERING & DESIGN ASSOCIATES

TIGARD, OREGON

FLATHEAD INDIAN IRRIGATION PROJECT
ELECTRICAL ENGINEERING CONSULTANTS REPORT
POWER DIVISION

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INTRODUCTION

The Secretary of the Interior by letter of October 3, 1984, directed the Bureau of Reclamation and the Bureau of Indian Affairs to conduct an intensive investigation of the Flathead Indian Irrigation Project on the Flathead Indian Reservation in the State of Montana.

The Northwest Regional Office of the U.S. Bureau of Reclamation and the Portland Area Office of the U.S. Bureau of Indian Affairs have assembled a team of several subcommittees to examine the various portions of the Project, including an engineering, operation, and maintenance subcommittee, a project management subcommittee, a legal review subcommittee, and a power division review consultant.

This report regarding the Power Division of the Flathead Indian Irrigation Project (Project) and its power system are being done through a contract between the U.S. Bureau of Indian Affairs and Edward Fitzgerald Dibble, Consulting Engineer, of Redlands, California. Associated with him as a subcontractor is Engineering & Design Associates, of Tigard, Oregon.

Those persons participating is this study and report of the electric power aspects of the project are as follows:

Edward Fitzgerald Dibble, Consulting Engineer,
Redlands, California

Engineering & Design Associates, Tigard, Oregon
Stanley D. Reed, P.E.
Michael W. Unger, P.E.
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Ray J. Johnson, P.E.

Purpose

The purpose of the study is to evaluate the operation, maintenance, management and physical condition of the Power Division of the Flathead Indian Irrigation Project and the electric power system as it now exists and its future needs.

Scope

Within farily tight time constraints, this study has made an evaluation of the Power Division considering the sources and costs of electric power available to it, the physical and technical adequacy of the electric power system, its current deficiencies and recommends improvements with estimated costs. Management is evaluated with recommendations for changes, most especially in long-range and short-range planning, to develop an improved electric system to serve the loads of its customers and the Project.

The financial aspects of the Power Division are analyzed, including the revenues, operation and maintenance expenses, and construction expenditures. This use of net revenues was reviewed to evaluate their use to repay the United States for the construction costs of the power and irrigation systems.

The future costs of the Power Division were estimated together with the general magnitude of charges which would have to be levied to meet those costs. Also evaluated was the setting of retail electric rates and rules and the procedure to be used.

Chapter I

BACKGROUND AND HISTORY OF ELECTRIC POWER

for

FLATHEAD INDIAN IRRIGATION PROJECT

The boundaries of the Flathead Indian Reservation in Northwestern Montana were established 130 years ago by The Treaty of Hellgate (12 Stat. 975) dated July 16, 1855.

Later Congress, by its Act of April 23, 1904 (33 Stat. 302), directed that the reservation be surveyed and allotments of land be made to all persons having tribal rights on the reservation. The disposition of other lands were to ultimately be opened to entry and settlement by non-Indians. the 1904 Act also provided that proceeds for the sale of surplus lands should be used in part for the construction of irrigation ditches, and necessary articles to aid the Indian in farming and other purposes.

In 1907, as a part of implementing the 1904 Act, reconnaissance surveys and an investigation were made by the Reclamation Service of the possibilities for the Flathead Indian Reservation for power and irrigation. Surveys were made of the Flathead River downstream from Polson, Montana, as to the potential for power development, and for pumping water from the Flathead River into a possible reservoir near Pablo and into possible main canals of an irrigation system. The "Flathead Project Report" by Robert S. Stockton, Project Engineer, dated

November 12, 1907, was submitted suggesting a weir dam and pumping plant at Big Rock, two miles downstream from Polson, for lake control and to pump water into a major reservoir near Pablo. This power plant would have developed about 20,000 horsepower.

The Stockton report also indicated the full power development of the Flathead River on the Flathead Reservation would require a larger development downstream at what then was referred to as Rocky Canyon, in the reach where Kerr Dam is now located.

The Act of May 29, 1908 (35 Stat. 444), expanded the provisions relating to opening of lands on the Reservation to settlement and entry. It provided for an irrigation system to be built for the benefit of the Indian allottees, the funds to come from the sale of Reservation land and timber. The Indian would not have to pay for the cost of constructing the irrigation system but would have to pay for irrigation and maintenance. The irrigation system would also serve unallotted land but the owner would have to pay for a proportionate share of the cost of the construction, and for operation and maintenance of the system. It is also provided that the entryman or owner of any land irrigable by any system constructed shall also be required to pay for a water right.

The 1908 Act also included the so-called "turnover" clause which provided that when the required payments have been made for the major part of the unallotted lands irrigable under any system and subject to charges for construction thereof and for water rights, and for the construction costs chargeable to the land for

construction of the irrigation system, the management and operation of such irrigation works shall pass to the owners of the lands irrigated thereby, to be maintained at their expense under such form or organization and under such rules and regulations as may be acceptable to the Secretary of Interior.

The studies which had started in 1907 found that irrigation was feasible to a substantial acreage. The Act of March 3, 1909 (35 Stat. 796), authorized funds for construction of irrigation systems to irrigate allotted lands of the Indians on the Flathead Reservation and the unallotted irrigable lands, but with the cost of said entire work to be reimbursed from the proceeds of sales of lands and timber within the reservation.

The first statute by Congress which appears to be related directly to power development on the reservation was in Section 22 of the said Act, which authorized the Secretary of Interior, in his discretion, to remove from entry or sale tribal lands within the Flathead Indian Reservation chiefly valuable for power sites or reservoir sites, and to report to Congress such power-site reservations.

By letter dated April 25, 1909, the Secretary of Interior advised the Congress of the withdrawal of the lands for power site reserves on the Flathead River covering the reach of the river downstream from Polson at what is known as Site I where Kerr Dam is now located.

A notice of appropriation of water from the Flathead River was filed on January 3, 1910, for the United States for 100,000 cubic feet per second for irrigating 50,000 acres on the Flathead Reservation, and for developing power for

pumping and for domestic uses. The facilities were to be located southwest of Polson at the Big Rock Rapids and other points along the river. Many other filings were made for the years up to about 1936.

By a subsequent letter of February 23, 1910, the Secretary of Interior also advised the Congress of the withdrawal of lands at an additional four dam sites as power site reserves and twelve reservoir sites on the Flathead Indian Reservation.

The proclamation which opened land to entry on the Flathead Reservation was made in 1910, and entry onto those lands took place quickly. Construction proceeded to develop facilities for irrigation of the lands allotted to Indians and to irrigable lands not allotted to Indians.

Appropriations continued over the years for construction of the irrigation system. The Act of May 10, 1926 (44 Stat. 453), included an appropriation in the amount of $395,000 for a power plant, for which some $15,000 was to be immediately available for additional surveys and preparation of plans, but provided further that no part of the appropriation, except the $15,000 made immediately available, was to be expended on construction work until an appropriate repayment contract shall have been executed.

The power plant on the Flathead River was to generate power for the operation of project pumping facilities, especially the large pumping plant proposed on the Flathead River. On May 19, 1926, the local Supervising Engineer for the U.S. Indian Irrigation Service wrote to the Commissioner of Indian Affairs explaining the

motivation for the proposed power development; "It will be recalled that this proposed power development was worked up very largely for the purpose of providing some means of insuring repayment to the Government of excessive cost of the Camas Division of the Flathead Project which questionably cannot be reimbursed by the landowners of that unit."

The 1926 Act also specified some repayment requirements to be included in the repayment contracts. It required that the net power revenues be used to reimburse the United States in the following order: 1) to liquidate the cost of the power development, 2) to pay off the deferred obligation of the Camas division, 3) to liquidate costs of the irrigation system construction costs and 4) to liquidate operation and maintenance costs within the entire project.

The Annual Report of the Board of Indian Commissioners dated June 30, 1926, also explained the justification for power development at the Flathead Project as being primarily to assist the landowners in repaying the Federal Government for the large debt for constructing the irrigation facilities.

In 1927 and 1928 the subject of power development on the Flathead River was actively before Congress. Applications had been submitted by two different parties to construct and develop a much larger hydroelectric project than the one being proposed by the federal government for the Flathead Indian Irrigation Project.

In 1927 the Rocky Mountain Power Company, one of the applicants to build a project at what was called Site No. 1 where Kerr Dam is now located, made of record that it would be willing, if awarded the license, to supply up to 15,000 horsepower (11.2 MW) at special low prices to the irrigation project.

Congress, by the Act of March 7, 1928 (45 Stat. 200), authorized the Federal Power Commission to issue a license for the use of power sites for the development of power on the Flathead Reservation, and of water rights reserved or appropriated for the irrigation project. It proved that the license must be upon terms satisfactory to the Secretary of Interior.

The 1928 Act also provided that rentals from the license for the use of Indian lands shall be paid to the Tribes of the Reservation.

The 1928 Act further provided that the unexpended balance of the $395,000 available (from the 1926 Act) for construction of a power plant may be used, in the discretion of the Secretary of the Interior, for the construction and operation of a power distributing system and for purchase of power for said Flathead Project, but that the funds shall be available for that purpose only upon execution of an appropriate repayment contract as provided for in previous acts, and that the net revenues derived from operating the distributing system shall be used to reimburse the United States in the order provided in the 1926 Act; i.e. 1st, to liquidate the cost of the power development, 2nd, liquidate payment of deferred obligations of Camas Diversion; 3nd, liquidate construction costs of the irrigation system; and 4th, to liquidate operation and maintenance costs within the entire project.

On May 23, 1930, the Federal Power Commission (FPC) issued License No. 5 to Rocky Mountain Power Company, a subsidiary of Montana Power Company, which license was later transferred to Montana Power Company, to build the hydroelectric projected at Site #1 several miles downstream from Polson on the Flathead River on the Flathead Reservation. The project ultimately proceeded to construction of what is now known as Kerr Dam, which now has a dependable capacity of 180,000 kilowatts and generation averaging just over 1 billion kilowatt-hours per year.

Article 24 of the license provided that the licensee would pay to be United States the sum of $101,685.11 in consideration of the use to be made by the licensee of the partially completed Newell tunnel built by the U.S. as a part of its incomplete power development for pumping water to the irrigation project.

Article 26 provided for a block of low-cost power. It required that the licensee shall make available to the United States and the United States may take, for and on behalf of the Flathead Irrigation Project or the Flathead Irrigation district, the following:

A. <u>At the price of one-mill per kilowatt hour</u>:

1) Electrical energy in amount not more than 5000 HP (3,734 KW) of demand to be used exclusively for water for pumping.
2) Electrical energy in amount not more than 5000 HP (3,734 KW) of demand for all project and farm uses and for resale.

B. At the price of 2-1/2 mills per kilowatt hour:

1) Additional electric energy in amount not more than 5000 HP (3,734 KW) of demand for all project and farm uses and for resale.

Article 28 of the 1930 license provided that the United States reserved to itself or to the Flathead irrigation project management the exclusive right to sell power within the boundaries of the Flathead Indian Reservation, to the extent of 10,000 horsepower to be delivered for use and/or sale as provided in Article 26.

Article 30 of the 1930 license issued by the Federal Power Commission for the Kerr Project set forth the annual charges which shall be paid into the United States Treasury as compensation to the Flathead Tribes for the use of Flathead Indian tribal land by licensee in connection with the Kerr Dam project. The annual charges were to start at $1,000 per month when the license was issued in 1930, increasing in June 1939 to $5,000 per month when the plant went into commercial operation. Additional increases in the annual charges paid to the Confederated Tribes were made from time to time following extended hearings before FPC and/or its successor, the Federal Energy Regulation Commission (FERC). The original license was for a period of 50 years starting in 1930. At the time the original license had expired in 1980, the annual rental to the Tribes was $2,600,000 per year. The comments regarding the conditions of the new FERC license will be discussed below in this report.

When the license was issued to Rocky Mountain Power Company in 1930, the United States then ceased work on the construction of the Newell tunnel at Site No. 1. Instead, as authorized by Congress in the 1928 Act, it began construction of transmission lines and distribution lines to serve the Flathead Indian Reservation, using the unexpended balance of the $395,000 which had been available for continuing construction of a power plant no longer to be built.

This power system is operated and maintained by the Power Division of the Flathead Indian Irrigation Project.

The three irrigation districts located within the irrigation project had signed contracts with the Federal Government from 1928 to 1934 to repay the United States for the costs of constructing the irrigation system on the Flathead Reservation. Nevertheless, delinquent construction charges continued from 1930 to 1936 with little or no repayment. By the Act of June 22, 1936 (44 Stat. 1803), Congress directed the Secretary of Interior to investigate as to whether the owners of non-Indian lands in an Indian irrigation project had a repayment capability. The Secretary was also authorized to adjust, cancel, or defer the charges if he found that the landowners were unable to make the payment. The resultant study was completed on June 28, 1946, and recommended that the existing repayment contracts be modified.

The Act of May 25, 1948 (62 Stat. 269) followed, which was a comprehensive statute to prescribe how repayment to the United States would be made of the

reimbursable costs of construction of the power system and irrigation system of the Flathead Indian Irrigation Project, how the limits of its charges for its electric rates would be determined, the relation of gross power revenues to net power revenues, and the priority of the application of the "net power revenues" to repay to the United States the costs of construction of the power system and the irrigation system on non-Indian land and Indian land, and the operation and maintenance costs, etc., and it specified what were the sums which would be reimbursable from the net power revenues heretofore accumulated from the power system.

The 1948 Act also appropriated the sum of $1,000,000 to continue the construction of the irrigation system and power system of the project, said appropriation to be part of the reimbursable costs of the project, and its authorized payment to the Confederated Tribes of the Flathead Reservation for an easement right.

Based on the Act of May 25, 1948, the three irrigation districts each signed an amendatory repayment contract between the United States of America, acting though the Secretary of the Interior, and the individual irrigation district to provide for the adjustment of irrigation charges on the Flathead Indian Irrigation Project, and other purposes to implement the 1948 Act.

The results and analysis of the operation of the electric power system during the time since the passage of the Act of May 15, 1948, will be a major portion of this report.

Issue of New License in 1985 by FERC for Kerr Dam

The federal license issued by the Federal Power Commission for Project No. 5 (Kerr Dam) on May 23, 1930, for a period of 50 years and held by Montana Power Company expired in 1980. Both Montana Power Company and the Confederated Salish and Kootenai Tribes of the Flathead Reservation separately filed applications to be the new licensee to have and to operate the project for the next license period. During the interim period while hearings were underway, FERC issued to Montana Power Company a series of one-year licenses. After a series of hearings before the Federal Energy Regulatory Commission regarding many aspects of possible relicensing, the FERC Administrative Law Judge who was hearing the matter strongly urged an attempt be made to work out a settlement between the five parties, who were the applicant Montana Power Company; the applicant Confederated Salish and Kootenai Tribes; the United States of America acting through the Secretary of the Interior, both as trustee for the Tribes and as owner and operator of the Flathead Indian Irrigation Project; the Flathead, Mission and Jocko Valley Irrigation Districts, which three districts were represented by the Joint Board of Control; and lastly the Montana Consumer Counsel. After a series of settlement conferences, a negotiated settlement was evolved and submitted to FERC on March 25, 1985, for approval. FERC issued its order July 17, 1985, approving the settlement and issuing the new license for the Kerr Project. The effective date is 50 days later, which would be September 5, 1985, and the license will continue for a term of 50 years from the effective date.

To quote the FERC Administrative Law Judge as stated in his certification to FERC on the Offer of Settlement:

> "The settlement is unique as well as historic. It provides, among other things, for the sharing of a license issued by FERC, with MPC continuing ownership and operation of the project works for the first thirty years, and, upon stipulated and appropriate statutory compensation, for the Tribes to own the project works for the remaining twenty years and subsequent annual terms. Shared ownership and operation reflects the suggestion of the undersigned made early on in these proceedings."

Some of the major features of the new FERC license are:

1. The license is for 50 years, the first 30 years of which Montana Power Company will hold the license, and in the last 20 years the Tribes will hold the license upon payment of an amount representing the actual original cost of the project less accumulated depreciation of the works, and as defined in Commission Order VI(C)(2).
2. Article 39 provides for payment by Montana Power Company to the Tribes an annual charge of $9 million in the first year for the use of Tribal lands at the Kerr Project, with a portion of the charge to be adjusted each year based on the change in the Consumer Price Index.
3. Article 50 provides that when the Tribes take over ownership and operation of the project works, Montana Power Company will wheel (transmit) power from Kerr Project to the Bonneville Power grid system at nondiscriminatory rates.
4. Important to the Flathead Indian Project is Article 40(a) regarding the block of low-cost power which was provided previously in the 1930 license. It provides as follows:

"Article 40. (a) From the Effective Data until such times as MPC conveys the project to the Tribes, under this license or any amendment thereto, it will make available to the United States, for and on behalf of the FIP or the Districts comprising the same, capacity and energy at the Kerr Project 100kV bus in the following amounts:

(i) During all months of the year, up to 7.466 megawatts of capacity at up to 100 percent load factor;

(ii) During the months of April through October, additional capacity of up to 3.734 megawatts at up to 100 percent load factor.

The rate payable to MPC for energy taken by the United States during the first license year (i.e., from the Effective Date until the date one year after the Effective Date) will be 12 mills per kWh. The rate per kWh in each succeeding license year will be the sum of (a) 3.5 mills and (b) 8.5 mills times "CPI(S)" divided by "CPI(I)", where "CPI(I)" and "CPI(S)" are as defined in Article 39. No demand charge shall be payable with respect to the sale under this Article 40(a)."

The two amounts of power described above represent a total of 11.2 MW (15,000 HP) for 7 months, April through October, and a total of 7.466 MW (10,000 HP) during the 5 months November through March. This is the same amount of power as provided for in the original 1930 license for Kerr Dam discussed previously in this report. If taken at 100 percent load factor, this block of power represents approximately 84,580,000 kWh in a year. At 12 mills per kWh, this will cost the Flathead Indian Irrigation Project in the first year $1,014,960. the cost of an equivalent block of BPA wholesale firm preference power, also at 100% load factor, at this time would be about $1,669,083 for a saving to the Flathead Indian Irrigation Project of about $654,000 in the first year.

The rate payable to the Montana Power Company by the United States for the block of low-cost power during the first license year will be 12 mills per kilowatt-hour (3.5 mills plus 8.5 mills). The rate payable to Montana Power Company in each succeeding license year will be computed by the formula:

$$(3.5 \text{ mills}) + \left(8.5 \text{ mills} \times \frac{CPI_s}{CPI_i}\right)$$

$CPI_{(S)}$ is the Consumer Price Index for June of the new subject year and $CPI_{(I)}$ is the Consumer Price Index for Base month June 1985, which is 322.3.

In the rate which is to be payable to Montana Power Company by the United States for the low-cost block of power for the Flathead Project, the first component remains fixed, which is the 3.5 mills per kWh which approximates the cost of power from the Kerr Hydroelectric plant without a rental payment. The second component, the 8.5 mills, is intended to reflect the effect on the Kerr cost because of the payment by Montana Power Company of annual charges to the Confederated Salish & Kootenai Tribes for the use of tribal lands by the Kerr Project. That second component of the rate for the low-cost power, the 8.5 mills per kWh, will change in proportion to future changes in the consumer price index. That is also the way in which the annual charge payable by Montana Power Company to the Confederated Tribes is to be adjusted from year to year.

The Base Month is the month in which the day falls 90 days before the Effective Date. The Effective Date being September 5, 1985, the Base Month will be June 1985. The consumer Price Index, All Items, All Urban Consumers, for June 1985 is 322.3. Therefore, the formula for the rate which will become effective as of September 5 each succeeding year will be:

$$(3.5 \text{ mills}) + \left(8.5 \text{ mills} \times \frac{CPI_S}{322.3}\right) \text{ mills per kWh}$$

Where the $CPI_{(S)}$ is the Consumer Price Index for June of the new subject year.

Article 40(b) of the new 1985 FERC license for Kerr Dam provides:

> "The United States reserves to itself or the FIP management for the period prior to conveyance of the project to the Tribes the exclusive right to sell power within the boundaries of the Flathead Indian Reservation to the extent of 7.466 megawatts to be delivered for use and/or sale as provided in Article 40(a) above."

This terminology in the new 1985 license for Kerr Dam is essentially the same as in the 1930 license, except that the clause "for the period prior to conveyance of the project to the Tribes" has been added, as is discussed below in regard to Article 40(c) of the new 1985 license.

The question of the future of the block of low-cost power after the license for Kerr Dam is conveyed by Montana Power Company to the Tribes was not resolved in the joint license, first as to whether the Tribes must continue to make available the low-cost block of power to the United States for and on behalf of the FIIP or the Districts, and secondly as to whether the United States may reserve to itself the exclusive right to sell power within the boundaries of the Reservation. The several parties agreed that these matters would be resolved as set forth in Article 40(c) of the license, as follows:

> "This joint license does not cover or resolve the questions of whether, from the time the project is conveyed by MPC to the Tribes until the expiration of the joint license, (i) the Tribes must make any part of the output from the project available to the United States, for and on behalf of FIP or the Districts, or if so on what terms or conditions, or (ii) the United States may reserve for itself the exclusive right to sell power within the boundaries of the Reservation. Such matters are expressly reserved for resolution hereafter by agreement of the parties, with the approval of the Commission, for insertion in this joint license as a term hereof, or, failing such agreement, by the Commission, as provided below, subject to the authority of the Secretary to the extent provided by applicable law. Upon request of (i) the Tribes, the Secretary, or the Districts, made any time after the fifteenth anniversary of the Effective Date (Sept. 5, 1985) or (ii) the Secretary or the Districts made after the ninth but before the tenth anniversary of the Effective Date (or upon any

> earlier request concurred in by the Tribes, the Secretary, and the Districts), the Commission shall set such matters for hearing within twelve months of the date of the request; provided, that if neither the Secretary nor the Districts make such request to the Commission prior to such tenth anniversary date, the Secretary and the Districts shall forever be barred from claiming, with respect to the period of this license following the conveyance of the project to the Tribes, for or on behalf of the United States, FIP, the Districts, or anyone else, a portion of the project's output greater than that which is required to be made available under Article 40(a) of this license."

The language of Article 40(c) of the 1985 FERC license indicates the lack of agreement as to the water rights and/or power rights which relate to the Flathead Indian Irrigation Project.

In looking back to the time in 1929 and 1930 when these same matters were being debated and the Federal Power Commission issued the first license for Kerr Dam, the report by Mr. J. Henry Scattergood, Assistant Commissioner of Indian Affairs, was submitted to the Secretary of the Interior December 30, 1929, and was included in Senate Document No. 153 of the 71st Congress, entitled "Flathead Power Development" dated May 23, 1930. At page 42 and 43 of that report he states:

> "During the past few years much discussion as well as debates in congressional committees and on the floors of Congress have taken place in regard to these alleged conflicting interests of the Indians and of the irrigation project. It was vigorously argued, on the one hand, that the Indians' ownership of the power sites is absolute; that this carried with it the right of the Indians to every cent of rental moneys obtainable; and that any reduction of power rates to the irrigation project must necessarily come out of the Indians' rental and thereby cause an unwarranted reduction thereof. On the other hand, it was as stoutly maintained that the irrigation project can not be successful without pumping; that cheap power is essential for pumping; that the Indian owners of project lands and the white settlers who have purchased lands of the project from former Indian owners, are alike vitally interested in this cheap power; and have through all their years of ownership depended upon the government's plans and promises to secure it; that the United States Government itself through its Reclamation Bureau began even

though it did not complete a pumping development known as the Newell project, to pump water to the irrigation project; that the United States irrigation project itself and made water filings under the laws of Montana to make sure of the necessary water for this pumping project; that in an appropriation act approved January 12, 1927, and in every subsequent appropriation act, Congress has provided the money and authorized the procedure with a Government power project for pumping in the event that power is not procurable from the licensing of the Flathead site. Thus has arisen an unfortunate dispute on the question of the legality of the irrigation project's rights. Certainly no one has or can successfully contest the equitable grounds of the irrigation project to consideration in the matter of cheap power, even if the legal position has been questioned by some. One of the applicants, the Rocky Mountain Power Co., has recognized this equity from the beginning and has since 1927 put on records its willingness, if granted the license, to supply 15,000 horsepower at special prices to the irrigation project .....

The Indian Bureau has the double responsibility of protecting fully the tribal rights of the Indians in the matter of power rentals and also of doing everything possible to make a success of the Flathead Indian irrigation project committed to its care. It does not consider that these interests are really conflicting in the sense of the unfortunate dispute above referred to. We have therefore first considered in this memorandum the matter of the Indian rental on its merits just as if there were no irrigation at all; we have accordingly proposed what sees to be a fair rate of rental.....

This Indian rate of rental having thus been fixed, we can properly turn to the irrigation project and consider it as one special group of general consumers that the United States Government is particularly interested in protecting to the extent of 15,000 horsepower for pumping and for the project and for sale. This justification for this is that the irrigation project is the Government's own project, and the Government's hope of reimbursement depends upon the project's success. The provision for sale of current in the above quotations was based on the expectation that a profit can be realized on the retail sale of electric current purchased at low wholesale prices, and that this profit will enable the Flathead irrigation district to be an assured success and thus reimburse the project's construction costs to the Government more rapidly than would otherwise be possible. In anticipation of this profit from power as first proposed to be made by the Government itself, Congress in the Act of May 10, 1926, provided for its disposition in an order of precedence not necessary to state here, and which was fully explained in the hearings...."

Chapter 2

MANAGEMENT OF POWER DIVISION

Organization Structure

At the present time, the Power Division of the Flathead Indian Irrigation Project (FIIP) is organized as illustrated on the Existing Organization Chart included at the end of this chapter. A Proposed Organization Chart for the Power Division is included immediately following the Existing Organization Chart. The Proposed Organization Chart is meant to serve as a guide to the extent that adjustments should be made to accommodate the experience and aptitude of the individuals available. An example of the latter consideration would be that the Organization Chart illustrates the shop personnel reporting through the Superintendent of Engineering and Technical Services. If the individual filling the latter position is more inclined to inside technical pursuits than with "hands-on" activities, shop personnel could report to one of the General Foreman.

The following discussion pertains to those additional proposed changes that are most noteworthy. It is recommended that two functions, namely 1) engineering and technical services and 2) construction and operations, report directly to the Power Superintendent. Within the construction and operations function, we are proposing that more emphasis be placed on three man crews in lieu of five man crews to improve efficiency. It is recognized that apprentices would be added to the crew structures to facilitate training, sometimes adding to the size of the crew. It should also be noted that crews can be combined for accommodating vacation schedules and larger tasks.

It is recommended that a portion of the purchasing function now assigned to the Administrative Division of FIIP be assigned to the Power Division for procurement of materials unique to the Power Division operation. The function of procuring materials in the process of operating a power system is necessarily closely associated with the function of engineering design, stores and materials management, and especially with construction. It is critical to the efficient operation of the power system that a responsible procurement procedure be available. This is discussed further under a Purchasing section in this chapter.

At the present time, the Power Division has crews located in Hot Springs, Polson, Ronan and St. Ignatius. There has been a pronounced trend in the industry in recent years toward consolidation of facilities. Manpower has become more costly and equipment and highways have been improved resulting in shorter travel times. The power review team recommends that the Ronan, St. Ignatius and Polson service centers and warehouses be consolidated at one location. In consideration of the fact that most of the construction occurs in the Polson and Ronan areas, a good central location would be Polson, Ronan or an intermediate location. The Proposed Organizational Chart was developed assuming the centralization of the St. Ignatius, Ronan and Polson facilities.

The review team considered the relative merits of having meter reading reports to the Power Division as it does presently as compared to having meter reading report to the Administrative Division. The final conclusion is a weak recommendation that meter reading report to the Administrative Division. The advantage of implementing such a change results from consideration that meter reading is more

closely associated with the customer service functions assigned to the Administrative Division. The major disadvantage of having meter reading reporting to the Administrative Division is that personnel may not be as readily available to the Power Division for service during system emergencies.

Organizational Performance

In order to communicate to the reader the assessment of the power review team pertaining to the performance of the organization, the characteristics and results are expressed in percentile values relative to other similar electrical utilities, i.e. utilities serving similar geographical areas with similar load densities and of similar size. The power review team believes the relative efficiency of the electric power operation of the Power Division is about 45 percentile. The latter judgment is subjective but does also include a consideration of various other factors, including such things as ratio of employees to consumers.

Operating efficiency is, of course, influenced by many factors, one of which is the condition of the physical plant. The review team judged the physical condition of the power system to be about 50 percentile and the capability of the power system to perform approximately 30 percentile. The latter disparity results from the plant in many cases being less than optimum in such critical characteristics as; nominal voltage level, conductor sizes, and application of apparatus.

It is the opinion of the power review team that the major factors which result in the less than average efficiency in terms of operating results are:

1) the lack of long-range planning for the needs of the power system, which lack has existed historically and which continues to the present. The lack is reflected into lack of even a 3-year plan or a 3-year budget of power system needs.
2) the management and technical proficiency of the personnel in terms of being general short on electric utility experience and training.
3) The two factors listed above combine and are reflected in a lack of budgets of the power system needs in terms of equipment, purchasing, funds, and rates, extending even 2 or 3 years.
4) Constraints imposed by government directives and procedures, which apparently have been aggravated by the lack for many years of an Administrative Officer to assist in implementing needed actions, especially in the purchasing and personnel fields. It should be noted in this regard that the members of the review team have had fairly recent experience with several other government-operated electrical distribution systems, and in their judgment, FIIP was more efficient than most of those government-operated systems encountered.

There is an old axiom somewhat to the effect that a poorly organized system can be made to work well if there is the will to do it, but even a well-organized system can fail if people won't work well together.

Personnel

The supervisory and engineering staff includes five graduate engineers. This is a larger number of graduate engineers than on frequently finds in a utility of this

size. The engineering staff averages just under four years in utility experience which is certainly on the low side, but not unique for utilities of this size. Most of the utility engineering experience of the staff, engineers and power superintendent has been with the FIIP.

In the judgment of the power review team, the technical and managerial skills of the staff are 40 to 45 percentile. The latter levels should improve as the staff acquires more experience and training through processes which are now in place. These ratings would also be improved by implementation of the recommendations included in this chapter.

The experience level of the outside crews and the supervisors compares favorable with that of utilities of this size. As an example, the two Foreman III supervising the field crews in the north and south areas have an average of 26 years experience in the utility industry.

Some clerical training has been obtained through the Denver Training Center. In general, the training program for personnel in the Power Division are typical of other utilities.

The Power Division has been taking advantage of the training opportunities presented by membership in the Northwest Public Power Association. Personnel have attended the annual Engineering and Operations Conferences as well as seminars presented by NWPPA on specific subjects. It is recommended that this involvement be continued and, if possible, expanded.

In the past the linemen have been trained in a three-year locally administered apprenticeship program. They are presently changing to a four-year program that has instruction by an electrical engineer and will involve transmission operation and construction experience through cooperation with the Bonneville Power Administration.

System Planning

The management procedures which would result in the highest benefit/cost ratio in terms of operating performance improvement at FIIP would be that of adequate planning. The Power Division should, at all times, have an up-to-date long-range plan and a current two to three-year work plan. The long-range plan should be updated every five to ten years depending on the load growth and system development, and the work plan should be updated every two or three years. This procedure is similar to that required by the Rural Electrification Administration for those utilities using REA financing and is one of the most effective REA requirements.

A long-range plan should consider the optimum nominal voltage level and conductor sizes for the subtransmission and distribution system as well as the location, rating and timing of major system additions, removals or replacements. The long-range plan should also include a financial operating projection as a guide to establishing rates which will accommodate the development of the system in terms of performance and debt service requirements.

There is an existing disparity between the physical condition of the FIIP Power system and the performance capability of the system which results in a degrading of system efficiency. For the most part this disparity is the result of poor system planning.

The FIIP Power Division staff is capable of and has done a very good job of implementing system modifications. However, the system modifications implemented have been inadequate in terms of number and type, especially as they inter-relate to the longer term system needs.

Good planning, including operating projections, will result in information being available for developing and documenting budgets as well as rate requirements. Good planning will add a high degree of staff confidence in the process of implementing system modifications. It should be noted that implementation of this recommendation requires that the Power Division be able to procure goods and services in an expedient manner.

Purchasing and Materials Management

The section of this chapter entitled Organization Structure recommended that the purchasing function pertaining to equipment and supplies unique to the Power Division be assigned to the Power Division. The present procedure assigns purchasing authority up to $10,000 to the Administrative Division of FIIP and requires that purchases in excess of $10,000 be accomplished by the Portland Area Office of the Bureau of Indian Affairs (BIA). This is an extremely awkward procedure which results in some major distortions in terms of the manner in which

the Power Division has operated. It is recommended that purchasing authority should be extended to the Power Division up to $100,000, which limit would apply to all similar equipment purchased in any three-month period. It is further recommended that for purchases in excess of $20,000, a formal quotation procedure be adhered to which would; include advertising for bids, and that for purchases between $2,500 and $20,000, telephone quotations would be required which should be documented with a file notation of pertinent information such as date, time, vendor, price and delivery.

If there is not sufficient purchasing and contracting activity in the Power Division to justify a full-time person, then an alternative would be to have a person who is qualified as a purchasing officer, but who also would perform other functions with the organization in addition to purchasing.

A third alternative would be for the FIIP as a whole to have a purchasing-contracting officer for the FIIP at a class 3 level with purchasing authority up to $200,000. The Power Division could then work closely with purchasing-contacting officer to facilitate purchases of materials needed for the power system.

The storage and handling facilities for equipment and materials used in the electrical plant are generally inadequate and somewhat poorly organized. For instance, there is no truck-bed-height storage available at either Polson or St. Ignatius (the Ronan line headquarters was not inspected). It is generally

necessary for a crew to move their line truck to a number of locations to pick up the materials they require. This procedure is obviously inefficient, resulting in lost crew time.

The recommendation included in the Organizational Structure section and pertaining to the development of a central crew headquarters in the Polson/Ronan area would alleviate this situation by presenting an opportunity to construct a well-organized storage yard with ample truck-bed-height loading facilities and with well organized bin and shelving storage for hardware and tools. An efficient warehouse and crew headquarters where most of the material is stored at truck-bed height would permit line trucks to be parked at the loading dock to receive all materials excepting items such as poles. The heavier items such as transformers could be palletized and stored on strong shelving and moved with pallet jacks and fork lifts. Incoming freight could be unloaded conveniently with fork lifts or pallet jacks by moving material directly from the truck bed to the loading dock.

The inability to procure materials in an expedient manner in the operation of an electric utility makes it difficult to develop good material management procedures. As a result, some of the problem areas of the Power Division are interrelated. For instance, if there is a tendency to be short of materials it then results in substantial delays in implementing system improvements or in responding to new service requests. On the other, if the utility becomes slow in responding to requests and new improvements, and holds material for a particular work order awaiting the arrival of the rest of the material before that job can start, an unbalanced level of material on hand will develop.

A factor which is particularly noteworthy in the case of the Power Division is the age of the vehicles and rolling stock equipment. The latter equipment is very old relative to that used by other utilities and as a consequence, FIIP has developed a very substantial repair and maintenance facility. In the judgment of the review team, this is not a financially prudent method of operation. We recommend that a program of updating the equipment be initiated and that the repair and maintenance staff and related facilities be substantially reduced.

Other Considerations

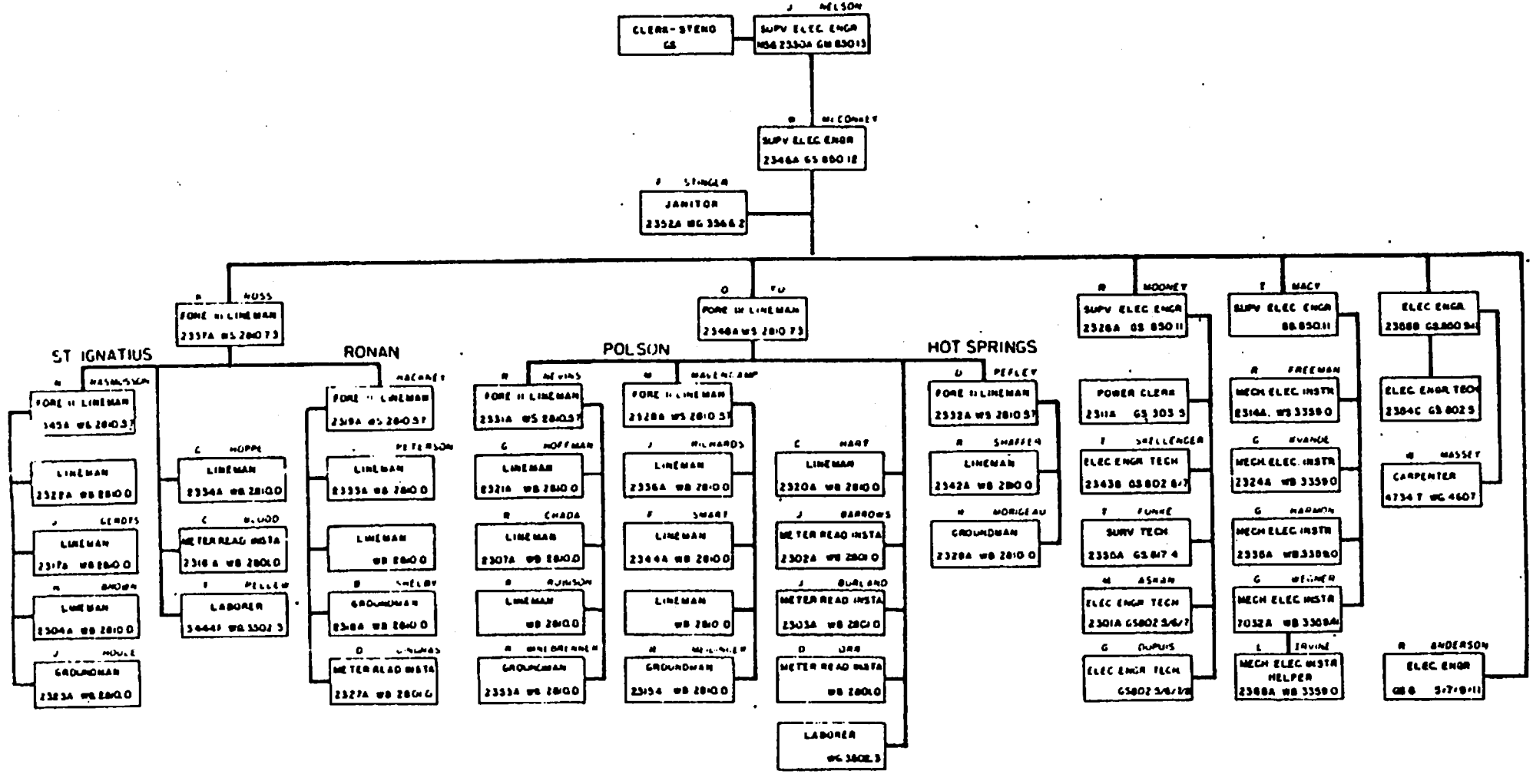
In the process of reviewing the operation and management of the Power Division, the judgments pertaining to performance level were in part developed as a comparison of other utilities of similar size and load density. Essentially, all of the other utilities which might be considered in such a comparison are REA Cooperatives or public utility districts. In the case of the latter utilities, the managers have the advantage of counsel and guidance from representatives of the consumers in serving on the board of directors or commissioners. This is, in our judgment, a distinct advantage as compared to the Power Superintendent's situation at FIIP. In most cases, some of the individuals serving on boards of REA co-ops or public utility districts have substantial management and business experience. Thus, they are in a position to counsel the manager in operational and administrative judgments in addition to serving as a spokesman for the consumers from that portion of the service area where they reside.

If the Power Division of FIIP were to be separated and operate as a separate entity apart from the irrigation project, we would recommend that a board of advisors be established which would bring to the Power Superintendent of the Power Division some of the advantages of a board of directors or commissioners. We think that such a group would prove to be of advantage to the Power Division as an electric utility as well as to the electric consumer, to the water users and to the Confederated Tribes. It could further serve as a communication link between the utility and consumers in determining the timing and magnitude of future rate adjustments.

Recommendations

1. The Power Division should take steps to develop and maintain up-to-date long-range power system plans and short range work plans pertaining to additions, removals, and replacements involving the electric plant.
2. The budget of the Power Division will exceed $10 million in 1986, of which at least $1.2 million is expected to be construction activity involving purchasing of many different items and components for electric plant. Purchasing authority for those goods and services unique to the power system operation should be assigned to the Power Division with limits as described under the purchasing and material management section of this chapter. As an alternative, FIIP should be authorized to hire a level 3 purchasing-contracting office with authority to approve amounts up to $200,000.
3. The Power Division organizational structure should be modified to develop a structure similar to that illustrated on the Proposed Organizational Chart located at the end of this chapter.

4. The crew and materials facilities located at Polson, Ronan and St. Ignatius should be combined and located in the Polson/Ronan area.
5. The existing personnel training program should be continued and participation in NWPPA and APPA engineering and management seminars should be increased.
6. A board of advisors or governors from a cross-section of geographic areas and type of consumers should be established to provide guidance and counseling in a broad source of consumer input through the power superintendent. This recommendation seems particularly appropriate in the event the Power Division is separated from the Irrigation Division and is operated as a separate entity.



FLATHEAD INDIAN IRRIGATION PROJECT
EXISTING ORGANIZATION CHART
POWER DIVISION

Table 1

FLATHEAD INDIAN IRI

Power System Energy
in
Kilowatt

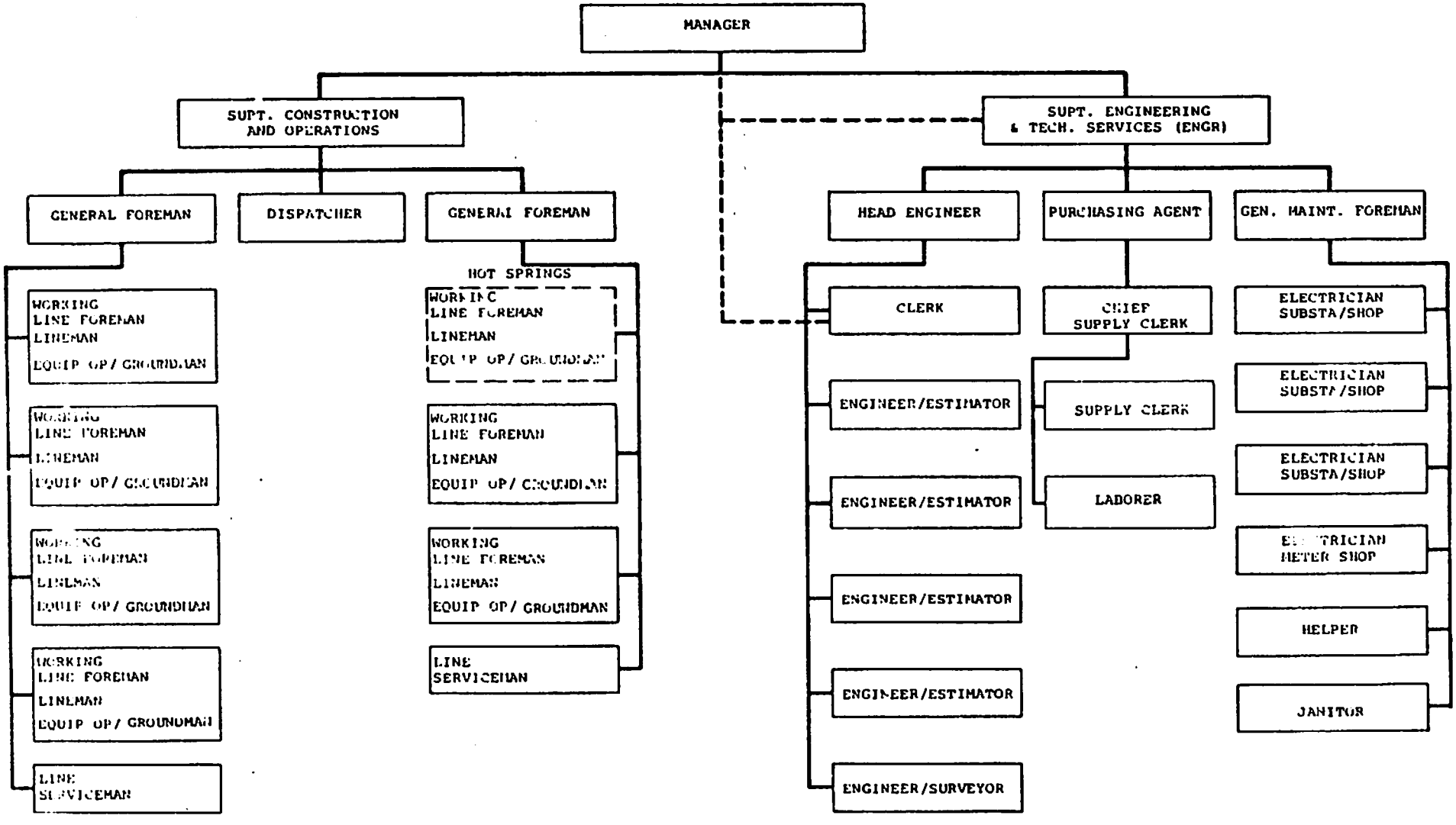
Calendar Year	1	2	3	4	5	6	
	Total Power Input						
	Generation Station Output Kwh	Purchased Power: Montana Power Co.	Purchased Power: Bonneville Power	Purchased Power: Total Purchased Power (2+3)	Total Power into System Lines (1+4)	Project Pumping Plant	
1948	1,379,157			44,166,740	45,545,897	113,692	
1949	1,417,940			78,350,560	79,768,500	13,531,716	
1950							
1951							
1952							
1953	N/A	N/A	N/A	N/A	N/A	N/A	
1954							
1955							
1956							
1957							
1958	1,344,110	51,529,605	-0-	51,529,605	52,873,715	5,925,528	4
1959	1,862,010	55,347,397	-0-	55,347,397	57,209,407	105,492	5
1960	2,369,430	64,442,828	-0-	64,442,828	66,812,258	4,456,155	6
1961	2,037,270	75,555,243	-0-	75,555,243	77,592,513	6,220,119	7
1962	2,119,629	78,050,550	-0-	78,050,550	80,170,179	6,642,826	7
1963	1,922,117	89,719,663	-0-	89,719,663	91,641,780	12,128,504	7
1964	1,876,467	81,556,605	-0-	81,556,605	83,433,072	121,876	8
1965	2,114,306	84,581,184	-0-	84,581,184	86,695,490	105,902	8
1966	1,719,297	99,233,614	-0-	99,233,614	100,952,911	6,118,725	9
1967	1,862,920	103,898,549	1,437,000	105,335,549	107,198,469	9,016,158	9
1968	2,427,100	109,895,990	3,076,000	112,972,190	115,399,290	13,591,234	10
1969	2,452,580	113,428,000	3,420,010	116,848,010	119,300,590	7,473,335	11
1970	2,170,150	95,980,850	14,267,450	110,248,300	112,418,450	316,191	11
1971	2,332,240	91,222,450	35,214,625	126,437,075	128,769,315	4,799,191	12
1972	2,254,290	93,973,200	49,357,175	143,330,375	145,584,665	7,769,866	13
1973	1,856,260	96,429,900	74,122,700	170,552,600	172,408,860	27,021,235	14
1974	2,265,960	95,774,300	56,134,000	151,908,300	154,174,260	2,917,522	15
1975	1,950,080	96,791,000	71,067,550	167,858,550	169,808,630	5,713,116	16
1976	2,235,698	97,608,000	69,762,612	167,370,612	169,606,310	140,048	16
1977	1,779,616	97,905,150	109,425,850	207,331,000	209,110,616	25,405,586	18
1978	2,535,137	97,825,000	94,958,000	192,783,000	195,318,137	186,131	19
1979	2,194,657	98,049,200	128,228,800	226,278,000	228,472,657	8,520,595	21
1980	2,187,438	92,655,504	116,520,496	209,176,000	211,363,438	3,017,389	20
1981	2,301,276	84,579,984	132,846,016	217,426,000	219,727,276	91,093	21
1982	2,030,155	84,359,000	155,606,040	239,965,040	241,995,195	108,572	24
1983	2,300,315	84,586,000	145,884,000	230,470,000	232,770,315	89,965	23
1984	2,132,616	84,761,000	161,476,000	246,237,000	248,369,616	4,002,976	24

Table 3-1

)IAN IRRIGATION PROJECT

Energy Sources and Uses
in
ilowatt-Hours

7	8	9	10	11	12	13	14
Power Uses and Losses							
Subtotal into Power System (5-6)	Retail Sales	Sales to Other Utilities	Irrigation Division Use	Total Sales (8+9+10)	Plant Use of Power Division	Trans-mission and Line Losses	Total Uses and Losses (6+11+12+13
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
46,948,187	39,256,886		538,917	39,795,803	538,381	6,614,003	52,873,71
57,103,915	48,319,195		427,327	48,746,522	595,008	7,761,935	57,208,95
62,356,103	53,430,778		648,164	54,078,942	539,249	7,737,912	66,812,25
71,372,394	59,188,238		473,865	59,662,103	526,365	8,183,926	74,592,51
73,527,353	64,039,598		421,760	64,461,358	535,051	8,530,944	80,170,17
79,513,276	68,950,069		676,405	69,626,474	505,387	9,381,415	91,641,78
83,311,196	72,741,172		565,269	73,306,441	548,179	9,456,576	83,433,07
86,589,588	76,500,949		343,169	76,844,118	517,376	9,228,094	86,695,49
94,834,186	82,842,008		644,838	83,486,846	490,009	10,857,331	100,952,91
98,182,311	86,490,844		755,598	87,246,442	525,864	9,709,606	106,498,07
101,808,056	88,869,527		674,737	89,544,264	536,281	11,727,511	115,399,29
111,827,255	99,054,632		624,337	99,678,969	610,922	11,537,364	119,300,59
112,102,259	97,850,621		474,416	98,325,037	592,245	13,184,977	112,418,45
123,970,124	109,807,458		546,408	110,353,866	675,019	12,941,239	128,769,31
137,814,799	121,887,883		418,328	122,306,211	684,211	14,824,377	145,584,66
145,387,625	128,242,794		985,513	129,228,307	585,473	15,573,845	172,408,86
151,256,738	132,656,918		418,236	133,075,154	499,054	17,682,530	154,174,26
164,095,514	143,545,421		438,338	143,983,759	545,071	19,566,684	169,808,63
169,466,262	149,696,359		394,889	150,091,248	554,217	18,820,797	169,606,31
183,705,030	160,936,412		1,120,990	162,057,402	645,041	21,002,587	209,110,61
195,132,006	171,250,290		409,890	171,660,180	662,258	22,809,658	195,318,22
219,952,062	196,153,170		576,440	196,729,610	609,089	22,522,823	228,382,11
208,346,049	184,724,442		389,882	185,114,324	569,143	22,662,582	211,363,43
219,636,183	192,763,531		339,907	193,103,438	589,781	25,942,964	219,727,27
241,886,623	215,775,334		451,484	216,226,818	656,745	25,003,060	241,995,19
232,680,350	204,216,963		335,957	204,552,920	606,620	27,520,810	232,770,31
244,366,640	222,207,260		439,713	222,646,973	694,839	21,024,828	248,369,61



FLATHEAD INDIAN IRRIGATION PROJECT
PROPOSED ORGANIZATION CHART
POWER DIVISION

CHAPTER 3

POWER SYSTEM AND ITS ADEQUACY

Definition of System Components and Service Areas

Service Area

The service area of the FIIP covers the entire Flathead Indian Reservation to the extent that power lines are extended to the various parts of the Reservation. It also serves some adjacent areas outside the Reservation, especially the Lake Mary Ronan area which is just north of the Reservation west of Flathead Lake. The service area of the Power Division is substantially greater than the area served by the Irrigation Division.

System Load

The historical peak load on the FIIP system was 64,848 kilowatts which occurred in December 1983. The total power input into the system for the calendar year 1984 was 248,369,616 kilowatt-hours. Average demand during that same period was 28,109 kilowatts and the annual load factor was 43.3%.

Power Suppliers

FIIP purchases wholesale power from Montana Power Company (MPC) and the Bonneville Power Administration (BPA). From MPC the Project purchases 11,200 kw between the months of April and October and 7.466 kw between the months of November and March under terms of a license developed when MPC constructed the Kerr Dam on tribal lands in the 1930's. The balance of the FIIP's power

requirements are supplied by BPA under a preference customer contract. Under this contract, future load increases will be supplied as required. The increases in purchased power will come from BPA.

In addition to the wholesale power suppliers, FIIP owns and operates a small hydroelectric generating plant on Big Creek. In 1984 the three sources of power to FIIP were the following:

Source	1984 Energy Input (kilowatt-hours)	
Big Creek Hydroelectric	2,132,616	0.9%
Montana Power Company	84,761,000	34.1%
Bonneville Power Admin.	161,476,000	65.0%
1984 Total System Input	248,369,616	100.0%

The amount of energy from the several sources and the uses of the energy in the power system are shown on Table No. 3-1.

Delivery Points for Power

Power is delivered into the Project's system at two locations - Elmo and Kerr substations. Both delivery points are located in the northern part of the service area. The Elmo substation is supplied from a 115 kV circuit owned and operated by BPA. The Kerr substation is served from a common buss which is supplied from circuits of BPA, of Montana Power Company and from the Kerr Dam hydroelectric plant which is located adjacent to the substation.

Elmo substation, which is owned and operated by the BPA, contains one 115-12.47 kV, 3.0 MVA transformer. Its historical peak load of 3,048 kilowatts occurred during December, 1983.

The major delivery point for FIIP's electrical system is Kerr substation which is owned and operated by FIIP. Kerr substation's peak historical load was 61,800 kilowatts. It also occurred during December, 1983. Six step-down transformers are located at the substation. They are:

1. 115-69 kV, 20 MVA.
2. 115-69 kV, 10 MVA.
3. 115-34.5 kV, 20 MVA.
4. 115-34.5 kV, 5 MVA.
5. 115-34.5 kV, 5 MVA.
6. 115-34.5 kV, 5 MVA.

Substation System

Both 69 kV and 34.5 kV subtransmission circuits of FIIP power system are supplied from Kerr substation. There are seven low-side breakers at the substation - two on the 69 kV bus and five on the 34.5 kV bus. Two of the 69 KV breakers amd two of the 34.5 kV breakers supply a closed loop subtransmission system. The 34.5 kV and 69 kV systems are tied together by a 10 MVA autotransformer at the Ronan West substation and a 20 MVA autotransformer at Charlo substation.

In addition to the closed loop system there are three radial 34.5 kV subtransmission circuits supplied from Kerr substation. Summary descriptions of the subtransmission circuits and their associated distribution substation are included in Tables 3-2 and 3-3 at the end of this Chapter.

Distribution System

The distribution system voltage level is 12.47 kV except for parts of the Polson substation service area which are still at 4.16 kV. The distribution system has conductor sizes which range from #8 CWC to 336 kcm ACSR. Recent feeder main construction has generally been with conductor sizes of 3/0 and 336 kcm ACSR.

The range of age of the distribution circuits is as follows:

0 to 10 years old - 24 percent
10 to 20 years old - 23 percent
20 to 35 years old - 16 percent
Greater than 35 years old - 37 percent

Expenditures for System Improvements

Capital expenditures for system improvements during the period from 1975 thru 1984 are summarized in Table 3-4. Expenditures for replacement of outdated equipment and circuits are funded from an Operations and Maintenance expense account R-700.

Evaluation of Adequacy in Existing System to Meet Current Loads

Delivery Points

Transformer capacity at FIIP's two delivery points is adequate for current loading conditions. At Elmo substation the 3 MVA, 115-12.47 kV transformer was loaded to approximately 3.2 KVA at the time of historical peak load - December, 1983. At Kerr substation, the 69 kV transformers (1-20 and 1-10 MVA units) were loaded to about 36 MVA in December 1983. The 34.5 kV transformers (1-20 and 3-5 MVA units) were loaded to 41.8 MVA. Since the transformers within the two

groups have approximately the same impedance, the loads are divided between transformers in proportion to their MVA capacity. As such, none of the individual transformer banks are significantly overloaded.

The actual loads which a transformer can carry without damaging or shortening its life depends on design parameters and ambient conditions at the time of the peak loads. In general, under winter loading conditions in the state of Montana, we anticipate that loads can be 40 percent in excess of transformer nameplate rating without resulting in the shortening of the transformer's life.

A third delivery point is being jointly explored by FIIP and BPA. This delivery point would be at the southern portion of FIIP's service area. It would be a second source to the 69/34.5 kV loop system which is now supplied from the Kerr delivery point.

Subtransmission System

Loadings and losses on subtransmission system circuits are listed in Table 3-5. Some portions of the system are heavily loaded. For example, the double circuit from Kerr to Polson substation is loaded to 78 percent of capacity, and the circuit with conductor of #8 CWC from Kerr to Irving Flats is loaded to 91 percent of capacity. Although the circuits are capable of carrying loads of this magnitude without overheating, they experience excessive line losses and voltage drops.

Information presented in Table 3-5 is based on a Load Flow Study of the subtransmisison system for a load level of 63 MW (the historical peak load is 61.8

MW load on the subtransmission system). Associated with a 63 MW load on the subtransmission system are line losses of 6.2 MW. These losses are equivalent to 9.87% and are excessive for a subtransmission system.

The voltages calculated by the Load Flow Study for the secondary bus of the distribution substation transformers are listed in Table 3-6. Power is regulated at the substation before it is delivered into the distribution feeders. The regulators can boost the voltage 10 percent. For feeders with a voltage drop to eight or more volts, it is desirable to have the voltage level at the feeder source ends at 5 percent over nominal during peak loading conditions. As such, voltages at 5 percent under nominal can be tolerated on the source side of the regulator. This level is equivalent to 114 volts on a 120 volt base. An examination of Table 5 will indicate that some of the substation low voltages are significantly lower than 114 volts at the time of peak loading. The Arlee substation voltage was calculated to be 96 volts while a Hot springs voltage of 95.9 volts was calculated. Clearly the subtransmission system must be improved to provide better voltage performance under heavy loading conditions.

Distribution Substations

Distribution substation transformer capacity and loads are presented in Table 3-7. Recorded data indicates that the Arlee substation transformer and one of the Polson 34.5-4.16 kV transformer banks were loaded to 174 percent of capacity in December, 1983. The Project has a 34.5-12.47 kV, 7.5 MVA transformer on order to replace one of the 4.16 kV banks at Polson. Additional transformation capacity will be required at Arlee.

Distribution System Performance

The performance of distribution feeders under peak winter loading conditions is summarized in Table 3-8. Although many of the feeders experience satisfactory voltage performance, some have excessive voltage drop. (ANSI or REA standards dictate a feeder voltage profile between 126 and 118 volts. With no line regulators, an eight-volt drop is therefore acceptable. With one line regulator providing an eight volt boost, a total drop of 16 volts is allowed. Additional line regulators can be added although two and, in some extreme situations three, are considered to be maximum.) In certain locations, the voltage drop on feeders with no line regulators is much in excess of 8 volts. For example, Charlo substation's Ronan tie feeder has a voltage drop of 28.4 volts and West Shore substation's West Shore feeder has a voltage drop of 32.7 volts.

The distribution feeders were analyzed with a voltage drop program in which feeder loads were distributed in the locations of the distribution transformers in proportion to the transformer kVA. Substation demand was apportioned between feeders in direct relation to the distribution transformer kVA served from each feeder.

Definition of Major Construction Needed Now

Introduction

The following expenditures (in 1985 dollars) for the Project's electrical system are recommended for the 1986-88 period.

1.	Studies	$ 95,000
2.	Transmission System	258,000
3.	Distribution Substations	462,000
4.	Distribution System	770,000
5.	System Sectionalizing	125,000
	Total	$1,710,000

Existing Project Plans

The above listed expenditures which are discussed below do not include those major expenditures which are currently under way or planned by Project personnel for the 1985-86 construction period. Other items such as new distribution transformer installations, line extensions, and improvements to feeder taps are also not included.

The major projects currently under way or planned by Project personnel but not included in the proposed expenditures are:

1. The installation of a 34.5-12.47 x 4.16 kV, 7500 KVA transformer at Polson to replace one of the 34.5-4.16, 3000 KVA units.
2. The installation of a 69 kV circuit to Pablo (2 miles).
3. The installation of 1-1/2 miles of 34.5 kV, 1/0 kcm al. circuit with a 336 kcm Al, 15 kV underbuild south of Hot Springs.
4. The rebuild of 7.0 miles of the 34.5 kV subtransmission circuit on the source side of Hot Springs substation. We recommend that Project personnel study the economic feasibility of replacing the #2 Cu, 35 kV circuit with a 3/0 Al, 69 kV circuit at the same time.
5. The installation of 3 miles of 12.47 kV on the Finley Point East Shore circuit.
6. The replacement of 6 miles of the single phase circuit on Finley Point substation's Finley Point feeder with a 3/9 a1., 3-phase circuit.

7. The rebuilding of the 34.5 kV circuit to West Shore substation. We recommend that Project personnel investigate the possibility of constructing the circuit for eventual 69 kV operation.

8. The reconductoring of 8 miles of feeder main in the Ronan substation service area.

9. The reconductoring of 8 miles of distribution circuit in the Charlo substation service area.

Proposed Expenditures for 1986-1988

I. Studies			
A.	Planning Study		$60,000
B.	Sectionalizing Study		35,000
	Total Studies		95,000
II. Transmission System			
A.	Replace the Kerr to Irving Flat 4.97 mile circuit with a 3/0, 69 kV circuit		132,000
B.	34.5 kV Capacitor installations		
1.	Arlee, 3.6 MVAR	$41,000	
2.	Hot Springs, 1.8 MVAR	38,000	
3.	Ronan, 6.0 MVAR	47,000	126,000
	Total Transmission System Improvements		$258,000
III. Distribution Substations			
A.	Rebuild Arlee Substation, install 1-75/9.375 MVA, 34.5 x 69-12.47 kV transformer and three feeder positions		385,000

B.	Install thermal ampere demand meters with instantaneous elements and drag hands on substation transformer at Camas Prairie, Irving Flats, Polson (12.47 kV Xfmr), Ravalli and South Shore	12,000	
C.	Install thermal ampere demand meters with instantaneous elements and drag hands on all distribution feeders		65,000
	Total Distribution Substation Improvements		$462,000

IV. Distribution System

A.	Arlee Substation Area		
1.	Install a single phase, 100 amp regulator on the Evard Feeder		$ 5,000
2.	Install 3 - 100 amp regulators on Evaro Feeder		13,000
B.	Camas Prairie Service Area		
1.	Install a single phase, 100 amp regulator		5,000
C.	Charlo Substation Service Area		
1.	Install a 300 KVAR capacitor bank		2,000
D.	Elmo Substation Service Area		
1.	Install a 100 amp, single phase regulator at two locations		10,000
E.	Finley Point Substation Service Area		
1.	Install 2 -100 amp, 1-phase regulators at Finley Point feeder		9,000
2.	Install 6.0 mi. of 3/0 ACSR 3-phase on Yellow Bay feeder main		167,000
F.	Hot Springs Substation Service Area		
1.	Install 3 -100 amp. regulators on the Lone Pine feeder		13,000

G.	Pablo Substation Service Area	
	1. Install a 300 KVAR capacitor bank on the Mt. View feeder	2,000
H.	Ravalli Substation Service Area	
	1. Install a 300 KVAR capacitor bank on the Dixon feeder	2,000
I.	Ronan Substation Service Area	
	1. Reconductor 0.43 mi. of the Main Alley feeder with 556 kcm ACSR	23,000
	2. Install a 300 KVAR capacitor bank on the North Crow-Pablo tie feeder	2,000
	3. Install a 300 KVAR capacitor bank at two locations on the Charlo tie feeder	4,000
	4. Install 3 -100 amp. regulators on on the Charlo tie feeder	13,000
	5. Reconductor 1.05 mi. of the Charlo tie feeder main with 556 kcm Al.	57,000
J.	St. Ignatius Substation Service Area	
	1. Install 3 -100 amp. regulators on the Post Creek Feeder	13,000
K.	West Shore Substation Service Area	
	1. Reconductor 4.9 mi. of the West Shore feeder main with 556 kcm Al.	265,000
	2. Replace a 2.0 mi., single phase portion of the West Shore feeder (2.0 mi.) with a 3/0 Al., 3-phase circuit	56,000
	3. Replace a 3.9 mi., single-phase portion of the West Shore feeder with a 3/0 Al., 3-phase circuit	109,000
	Total Distribution System Improvements	$770,000

V. System Sectionalizing

A.	Install sectionalizing devices as recommended by Sectionalizing study	$125,000
	Total Sectionalizing Improvements	$125,000

Comments on Proposed Construction Expenditures

1. Planning Studies

In discussing planning studies, we would first like to make reference to a procedure which the Rural Electrification Agency (REA) has used for years with its member borrowers. REA requires that its member borrowers have an up-to-date long-range planning study on file. Funds are loaned to its borrowers for this purpose. The planning study is generally revised or redone about every seven years with intermediate revisions required if major changes occur during the seven year period. In addition to the long-range plan, two or three year construction work plans are developed periodically to schedule yearly construction plans. The items in the plan are consistent with the guidelines presented in the Long Range Study.

With the REA system of planning (this system is also used by many other utilities), a periodic examination of the direction of the long-range development of the system is undertaken. If this long-range look at a system development is not undertaken, there is a tendency to continuously patch up an existing system to meet next year's load requirements. A utility can soon find itself with a system which is serving loads much larger than it was initially intended to serve with no options for realistic, cost effective expansion.

FIIP has not developed a tradition of utilizing long-range planning studies in conjunction with construction work type studies. There is a desire by FIIP personnel to look ahead for a period of up to five years. We encourage this development but also recommend that a long-range planning study be completed.

With this Long-Range Planning Study, basic system parameters such as delivery point location, subtransmission voltage level, subtransmission conductor size, distribution substation locations, and distribution voltage levels, feeder main conductor sizes and feeder configurations could be studied from a long-range view point.

A study such as this can be done either in-house or with the use of a consulting engineering firm. We recommend that experienced, electric utility engineer(s) be utilized. If the study is to be done in-house, it is important that the engineer(s) have the time to do an adequate job. In many cases, in-house engineers are often loaded down with the day-to-day operation and engineering tasks which make it difficult for them to do comprehensive Planning Studies.

If a consulting engineering firm is selected, it is important that it be selected on the basis of qualifications. A common procedure utilized is included in the Brooks bill for Federal procurement of A/E services. Under this bill, the procedure is to select several engineering firms based on qualifications, prioritize the selection and negotiate a price with the top firm. If mutual

agreement as to a fair price cannot be reached with the first firm then FIIP should negotiate with the No. 2 firm, and so on.

It is important to note that this report not be mistaken for a long-range planning study report. This report represents the results of a fairly detailed analysis of the existing subtransmission and distribution system but not the in-depth analysis of future development alternatives which would be found in a long-range planning study.

2. Sectionalizing Study

A brief examination of the system sectionalizing devices revealed that some devices are underrated as to fault interrupting capability and some do not have the sensitivity which is normally utilized on a rural electric system. (We refer to the traditional REA guidelines for device sensitivity in which the sectionalizing device must be able to detect and interrupt a line-to-ground fault with 40-ohm impedance.) In addition, FIIP personnel have reported coordination problems in several areas of the system. In view of these facts, we recommend that a sectionalizing study of the system be performed. As with the Long-Range Planning Study, the study can be done either in-house or by using a consulting engineering firm.

3. Subtransmission System

A summary of the results of our analysis of the existing system is presented in Table 3-4. Load flow calculations indicate that, at the time of historical

peak load, the voltages must have been very low on substation 12.47 kV busses at Arlee, Ravalli, Hot Springs and Camas Prairie. In order to increase the voltage, switched capacitor banks are recommended at Arlee, Hot Springs and Ronan. In addition, the first portion of the Kerr to Hot Springs 34.5 kV circuit is scheduled for reconductoring with 3/0 a1. 69 kV circuit. These measures will reduce the voltage drop on the subtransmission circuit to the degree that the distribution substation regulators can provide adequate output voltage for feeder regulation at all substations except Arlee and Camas Prairie. With the voltages provided at Arlee and Camas Prairie, the substation regulators will be able to boost the voltage to 120 volts. We would prefer 126 volts. The expenditures proposed for the Long Range development will provide the additional boost.

4. Distribution Substations

Distribution substation transformer loading is summarized in Table 5. Both the Arlee transformer and one of Polson's 34.5-4.16 kV transformers were loaded to 174 percent of capacity during the peak load conditions of December 1983 winter. The 7500 kVA, 34.5-12.47 x 4.16 kV transformer installation scheduled for Polson substation will alleviate the overloading condition on the 4.16 kV transformers. A larger transformer should be installed at Arlee substation. In our cost estimates we have included funds to rebuild Arlee substation and install a 7.5/9.375 MVA, 69 x 34.5-12.47 kV transformer in anticipation of an eventual conversion of the subtransmission system to 69 kV.

All distribution substation transformers except the transformers at Camas Prairie, Irving Flats, Polson (12.47 kV transformer), Ravalli and South Shore substations have recording ammeters. We are recommending that the thermal ampere demand meters with instantaneous elements and drag hands be installed on those transformers which do not have the recording ammeters. (The Project may decide to install chart recording devices similar to the units that have been installed at the other substations.)

Thermal ampere demand meters with instantaneous elements and drag hands should also be installed on each feeder of the system. This will be especially useful to FIIP engineers as they monitor system loads. It will be useful for feeder voltage studies since it will be possible to accurately determine historical feeder loads.

5. Distribution System

Calculations of the Voltage Drop Program indicate that there are several locations where the voltage drop on the feeder falls significantly below 118 volts at the time of peak loading. Most of these low voltage situations can be corrected with an application of regulators and/or shunt capacitors. Parts of the feeder mains in the Finley Point and West Shore service are, however, scheduled for reconductoring because of their extremely poor voltage performance under peak loading conditions.

The voltage drop calculations are based on a distribution of loads on the feeders which is in direct proportion to the location of the distribution transformer KVA. This generally gives a good indication of loads magnitude and location. There are, however, cases where different parts of a feeder service are have different transformer loading characteristics. We recommend that the FIIP engineer(s) measure the voltage during peak load conditions at locations where low voltages have been calculated to verify the requirements for proposed system improvements.

Table 3-2

Subtransmission Circuits

Subtransmission Circuit Name	Voltage Level	Conductor Sizes
Loop Circuit	69 kV	1/0 Cu - 10.44 mi 3/0 ACSR - 43.41 mi
	34.5 kV	336.4 kcm ACSR-17.75 mi 3/0 ACSR - 15.95 mi 1/0 Cu - 21.60 mi 1/0 ACSR - 2.0 mi #2 Cu - 5.6 mi #6 Cu - 1.0 mi
Hot Springs Radial Circuit	34.5 kV	#2 Cu - 6.42 mi #4A CWC - 10.06 mi #8 Cu - 14.59 mi
Pumping Plant Radial Circuit	34.5 kV	1/0 Cu, 1.72 mi #2 Cu, 0.87 mi
West Shore Radial Circuit	34.5 kV	#4 Cu, 4.8 mi

Table 3-3

Distribution Substations

Subtransmission Circuit Name	Substation Name	Transformers KVA	Transformers Voltages (kV)
Loop Circuit	Arlee	3750	34.5-12.47
	Charlo	5000	69-12.47
	DuPuis	2500	34.5-4.16
	Finley Point	3750	34.5-12.47
	Hydro	450	34.5-2.4
	Pablo	50000	34.5-12.47
	Plum Creek	3750	34.5-4.16
	Polson	7500	34.5-12.47
		3000	34.5-4.16
		3000	34.5-4.16
	Ravalli	1500	34.5-12.47
	Ronan	7500	34.5-12.47
		5000	34.5-12.47
	St. Ignatius	3750	34.5-12.47
	South Shore	3750	34.5-12.47
Hot Springs Radial Circuit	Camas Prairie	350	34.5-12.47
	Hot Springs	5000	34.5-12.47
	Irving Flat	250	34.5-12.47
Pumping Plant Radial Circuit	Pumping Plant	7500	34.5-2.4
West Shore Radial Circuit	West Shore	5000	34.5-12.47

Table 3-4

Capital Expenditures by Power Division

Year	Expenditures		
	From Project Gross Power Revenues (Account 470)	From Federal Appropriations (Account 024)	Total
1975	$ 75,668.36	$361,523.99	$437,192.35
1976	68,076.94	108,592.86	176,669.80
1977	70,459.21	232,032.22	302,491.43
1978	59,127.96	314,782.33	373,910.29
1979	97,659.28	178,472.62	276,131.90
1980	63,513.41	295,421.06	358,934.47
1981	131,729.05	132,970.28	264,699.33
1982	426,401.66	56,994.17	483,395.83
1983	486,990.29	12,079.70	499,069.99
1984	470,098.04	-0-	470,098.04

Table 3-5

Subtransmission System
Maximum Historical Loads and Associated Losses

Circuit	Miles	Load		Losses	
		Load MW/MVA	% of Capacity	KW	%
Loop Circuit					
69 kV Circuits					
Kerr-Charlo	25.6	12.1/13.5	38	594	4.9
Kerr-Ronan West	11.2	19.4/21.4	58	794	4.1
34.5 kV Circuits					
Kerr-Polson	6.1	26.3/28.7	78	1223	4.7
Polson-South Shore Tap	2.0	11.0/12.2	19	43	0.4
South Shore Finley Pt.	5.6	4.3/4.6	33	91	2.1
South Shore to DuPuis	0.8	6.7/7.7	41	28	0.4
DuPuis to Plum Creek	4.5	5.3/5.6	30	82	1.5
Plum Creek to Pablo	0.8	3.2/3.2	17	27	0.8
Pablo to Ronan	9.1	2.3/2.9	16	36	1.6
Ronan to Ronan West	1.2	13.6/14.6	46	71	0.5
Charlo to St. Ignatius Tap	4.5	12.4/13.6	43	258	2.1
St. Ignatius Tap to St. Ignatius	2.0	3.9/4.1	30	35	0.9
St. Ignatius Tap to Ravalli	4.7	8.3/9.2	29	129	1.6
Ravalli to Arlee	11.3	6.2/6.8	38	361	5.8
Hot Springs Radial Circuit (34.5 kV)					
Kerr to Irving Flat	5.0	4.7/4.9	91	373	7.9
Irving Flat to Hot Springs	16.0	4.2/4.4	81	776	18.5
Hot Springs to Camas Prairie	10.1	0.4/0.4	4	4	1.0
Pumping Plant Radial Circuit (34.5 kV)					
Kerr to Pumping Plant	4.8	0.0/0.0	0	0	0
West Shore Radial Circuit (34.5 kV)					
Kerr to West Shore	2.6	6.2/6.5	60	253	4.1

Table 3-6

Distribution Substations Secondary Voltages
for
Maximum Historical Load Conditions

Substation	Secondary Voltage (1)
Arlee	96.0
Camas Prairie	91.2
Charlo	119.2
DuPuis	117.4
Finley Point	115.1
Hot Springs	95.9
Hydro	116.4
Irving Flats	117.7
Pablo	114.7
Plum Creek	115.3
Polson	
4.16 kV Bank	116.5
4.16 kV Bank	117.1
12.47 kV Bank	117.4
Pumping Plant	126.4
Ravalli	106
Ronan	
North Bank	118.4
South Bank	110.8
St. Ignatius	110.8
South Shore	118.2
West Shore	121.8

(1) On a 120 volt base

Table 3-7

Distribution Substations
Historical Peak Loads

Substation	Transformer Capacity KVA	Load(1) KVA	Load(1) % of Capacity	Load(2) KVA	Load(2) % of Capacity
Arlee	3750	6373	170	6523	174
Camas Prairie	350	420	120		
Charlo	5000	4472	89	4497	90
DuPuis	2500			2570	103
Finley Point	3750	4977	133	4923	131
Hot Springs	5000	3358	67	3403	68
Hydro	450	175	39		
Irving Flats	250	204	81		
Pablo	5000	5943	118	6091	122
Plum Creek	3750			2771	74
Polson					
4.16 kV Bank	3000	3748	125	5222	174
4.16 kV Bank	3000	2951	98	4495	149
12.47 kV Bank	7500	9433	126		
Pumping Plant	7500	0	0		
Ravalli	1500	2186	145		
Ronan					
North Bank	7500	7343	98	7410	99
South Bank	5000	5327	107	5530	111
St. Ignatius	3750	4315	115	4406	117
South Shore	3750	0	0		
West Shore	5000	6549	131	6739	135

(1) From distribution system computer study.
(2) From recorded data - December, 1983.

Table 3-8

Existing Distribution Feeders
Loads & Voltage Drops

Substation & Feeder	Load KW	Load % of Ampacity	Voltage Drop Without Regulators	Voltage Drop With Regulators
Arlee Substation				
Arlee Feeder	3067	45	5.7	5.7
Evard Feeder	3260	63	11.8	11.8
Camas Prairie Substation				
North Feeder	110	11	1.8	1.8
South Feeder	301	6	9.2	9.2
Charlo Substation				
Ronan Tie Feeder	2049	52	26.3	26.3
Charlo East Feeder	532	14	4.7	4.7
St. Ignatius Feeder	60	1	0	0
Moiese, Ravalli Feeder	1718	15	5.2	5.2
Elmo Substation				
Elmo Feeder	3027	45	23.7	12.0
Finley Point Substation				
Finley Point Feeder	2251	34	12.6	12.6
Yellow Bay Feeder	816	17	28.4	28.4
South Shore Feeder	1833	15	2.0	2.0
Hot Springs Substation				
Lone Pine Feeder	921	29	11.8	11.8
Oliver Gulch Feeder	289	10	3.9	3.9
Hot Springs Feeder	2091	67	6.0	6.0
Irving Flats Substation				
Irving Flats Feeder	199	10	4.6	4.6
Pablo Substation				
Pablo Feeder	1456	47	3.1	3.1
Valley View Feeder	1001	19	3.4	3.4
Ronan Tie Feeder	805	26	3.4	3.4
Mt. View Feeder	2642	65	10.0	10.0

Table 3-8

Substation & Feeder	Load KW	Load % of Ampacity	Voltage Drop Without Regulators	Voltage Drop With Regulators
Polson Substation				
Downtown Feeder	1418	62	3.5	3.5
Safety Feeder	1421	63	2.2	2.2
Westside Feeder	809	35	4.7	4.7
Hospital Feeder	751	33	5.5	5.5
N. Cramer Feeder	810	35	1.6	1.6
Grandview Feeder	1321	57	8.8	8.8
Hillcrest Feeder	5318	45	4.2	4.2
High School Feeder	3876	33	5.0	5.0
Ravalli Substation				
Dixon Feeder	1080	34	10.7	10.7
Arlee Feeder	877	13	6.2	6.2
Ravalli Feeder	221	7	0.2	0.2
Ronan Substation				
Round Butte Feeder	1575	13	5.9	5.9
East Ronan Feeder	1153	10	1.7	1.7
North Crow Feeder	1746	24	9.3	9.3
South Ronan Feeder	1326	43	1.3	1.3
Main Alley Feeder	3890	125	3.9	3.9
Charlo Tie Feeder	1686	54	10.4	10.4
St. Ignatius Substation				
Post Creek Feeder	1405	45	10.0	10.0
St. Ignatius Feeder	2748	23	8.6	8.6
West Feeder	120	2	0.2	0.2
West Shore Substation				
Jetta Lake Feeder	1177	40	4.7	4.7
West Shore Feeder	5280	77	32.7	32.7

Chapter 4

POWER SYSTEM IMPROVEMENT AND EXPANSION NEEDS

1989 to 2010

The basic discussion of the present adequacy of the power system of FIIP was covered in Chapter 3. The work needed right away to correct some of the most urgent deficiencies was also discussed in Chapter 3 with a recommended list of work for the 3-year period 1986-1988.

The longer-range improvements together with the probable expansion needs of the power system of FIIP for the period 1989 to 2010 are covered in this chapter.

In considering the expansion needs of the power system, we have based the growth on an annual load growth rate of 2.07 percent compounded. This is a conservative growth rate estimate, especially in view of the fact that the number of consumers grew at an annual rate of 2.27 percent from 1977 to 1984 and the system energy sales for the same period grew at a compound annual growth rate of 3.76 percent. We anticipate that as conservation programs are implemented in future years, the energy growth rate of 3.76 will not continue, although we do not think it will fall below 2.0 percent.

Definition of System Upgrading and Expansion Needs by 2010

Introduction

The following major expenditures (in 1985 dollars) are proposed for the years 1989 to 2010.

1.	Studies	$ 560,000
2.	Transmission Line Construction	7,527,000
3.	Substation Construction	9,582,000
4.	Distribution System	4,612,000
5.	System Sectionalizing	480,000
	Total	$22,761,000

Expenditures for other items such as distribution transformer installations, line extensions and improvements to feeder taps are not included.

Long-Range Construction Details

I.	Studies		
	A.	Planning Studies (Three Long-Range Planning Studies and eight Construction Work Plans)	$320,000
	B.	Sectionalizing Studies (Eight Studies)	240,000
		Total Studies	$560,000
II.	Transmission Line Construction		
	A.	Transmission Circuit to south delivery point	300,000

B.	69 kV-Construction	
1.	Kerr to Pumping Plant, 3/0 ACSR, 2.59 mi.	98,000
2.	Kerr to West Shore, 3/0 ACSR, 4.80 mi.	182,000
3.	Irving Flat to Hot Springs, 3/0 ACSR, 9.62 mi.	365,000
4.	Hot Springs to Camas Prairie, 3/0 ACSR, 10.06 mi.	381,000
5.	Ravalli to Arlee, 3/0 ACSR, 11.25 mi.	330,000
6.	Kerr to Ronan West via Polson & Pablo substations, 795 kcm ACSR, 24.45 mi.	1,746,000
7.	Kerr to Ronan West 795 kcm ACSR, 14.91 mi.	1,065,000
8.	Ronan West to Charlo, 795 kcm ACSR, 11.0 mi.	785,000
9.	Ravalli to Charlo to Ronan West, 795 kcm ACSR, 20.2 mi.	1,959,000
10.	South Shore to Finley Point, 3/0 ACSR, 6.6 mi.	250,000
11.	Tap to St. Ignatius	66,000
	Total Subtransmission System Improvements	$7,527,000
III.	Substations	
A.	Delivery Point Substations	
1.	Kerr Substation - replace 115-34.5 kV transformers with a 30/40/50 MVA, 115-69 kV transformer	$ 830,000

2.	South Delivery Point Substation - Install two 30/40/50 MVA transformers	1,081,000
B.	Distribution Substations	
1.	Arlee, add one 7.5/9.375 MVA transformer	228,000
2.	Camas Prairie, new substation with a 1 MVA, 69-12.5 transformer regulation, and two feeder positions	70,000
3.	Charlo, add a 5.0 MVA, 69-12.5 kV transformer	183,000
4.	DuPuis, new substation with a 2.5 MVA, 69-4.16 kV transformer regulation and 2 feeder positions	261,000
5.	Finley Point, new substation with 2 -7.5/9.375 MVA, 69-12.5 transformers, regulation and 4 feeder positions	613,000
6.	Hot Springs, new substation with a 5.0 MVA 69-12.5 kV transformer, regulation and 3 feeder positions	391,000
7.	Irving Flats, new substation with a 0.225 MVA, 69-12.5 kV transformer, regulation and one feeder position	45,000
8.	Pablo, new substation with two 7.5/9.375 MVA, 69-12.5 kV transformer, regulation and 4 feeder position	613,000
9.	Plum Creek, new substation with one 2.5 MVA, 69-4.16 kV transformer, regulation and three feeder positions	290,000
10.	Polson, new substation with two 12/16 MVA, 69-12.47 kV transformers, regulation and 6 feeder positions	879,000
11.	Pumping Plant, new substation with a 7.5 MVA, 69-2.4 kV transformer, regulation and 1 feeder position	306,000

12.	Ravalli, new substation with 5.0 MVA, 69-12.47 kV Transformer, regulation and 4 feeder positions	418,000
13.	Ronan, new substation with two 10/12.5 MVA, 69-12.47 kV transformers, regulation and 6 feeder positions	680,000
14.	South Shore, new substation with a 7.5/9.375 MVA, 69-12.47 kV transformer, regulation and 4 feeder positions	618,000
15.	St. Ignatius, new substation with a 5.0 MVA, 69-12.47 kV transformer, regulation and 4 feeder positions	418,000
16.	West Shore, new substation with two 7.5/9.375 MVA, 69-12.47 kV transformer, regulation and 4 feeder positions	613,000
17.	Hydro, new substation with 0.225 MVA, 69-2.4 kV transformer and one feeder position	45,000
18.	Two additional distribution substations	1,000,000
	Total Substation Improvements	$9,582,000

IV. Distribution System

A. Arlee Substation Service Area

1.	Install 5.4 mi of 556 kcm Al., 2.5 mi. of 3/0 Al., and 7.6 mi. of 1/0 Al., 3-phase circuits	508,000

B. Charlo Substation Service Area

1.	Install 3.0 mi of 556 kcm Al., and 1.0 mi. of 3/0 Al., 3-phase circuits	172,000

C. Elmo Substation Service Area

1.	Install 8.45 mi. of 556 kcm Al., and 9.7 mi. of 1/0 Al., 3-phase circuits	621,000

D.	Finley Point Substation Service Area	
	1. Install 1.5 mi. of 556 kcm Al., 3.9 mi. of 3/0 Al., and 2.0 mi. of 1/0 Al., 3-phase circuits	225,000
E.	Hot Springs Substation Service Area	
	1. Install 1.4 mi. of 556 kcm Al., and 5.2 mi. of 3/0 Al., 3-phase circuits	213,000
F.	Pablo Substation Service Area	
	1. Install 7.9 mi. of 556 kcm Al., 3-phase circuits	381,000
G.	Polson Substation Service Area	
	1. Install 2.28 mi of 556 kcm Al., 0.6 mi. of 3/0 Al., and 2.26 mi. of 1/0 Al., 3-phase circuits	176,000
H.	Ravalli Substation Service Area	
	1. Install 5.5 mi of 3/0 Al., 3-phase circuits	265,000
I.	Ronan Substation Service Area	
	1. Install 6.13 mi. of 556 kcm Al., 1.0 mi. of 3/0 Al., and 2.0 mi. of 1/0 Al., 3-phase circuits and 3.0 mi. of 1/0 Al., single phase circuits	402,000
J.	St. Ignatius Substation Service Area	
	1. Install 2.6 mi. of 556 kcm Al. and 2.2 mi. of 3/0 Al.	187,000
K.	West Shore Substation Service Area	
	1. Install 0.7 mi. of 556 kcm Al. and 4.4 mi. of 1/0 Al., 3-phase circuits and 1.5 mi. of 1/0 Al., single phase circuits	148,000

L.	Additional Feeder Ties	
1.	Install 20 miles of feeder ties.	964,000
	Total Distribution System Improvements	$4,612,000
V.	System Sectionalizing	
A.	Install sectionalizing devices as recommended by Sectionalizing studies	$ 480,000
	Total Sectionalizing Improvements	$ 480,000

Discussion of Expansion Needs

1. Studies

The Planning Studies and Sectionalizing Studies have been included and budgeted for in the long range expansion cost in recognition of their importance in the system development process.

2. Transmission Line Construction

The expansion and upgrading needs by 2010 are based on a plan to gradually phase out the 34.5 kV system and replace it by a unified 69 kV system with two delivery points - one at Kerr substation and one at a location in the southern part of the service area, somewhere in the vicinity of Ravalli substation. In addition, the future system is expected to have two strong 69 kV subtransmission circuit ties between the two delivery points. This system will provide a reliable system capable of supplying the projected loads without excessive line losses and voltage drops.

Based on our experience, we feel that a 69-kV subtransmission system is a probable choice for long range development. It may be, however, that a Long Range Planning Study would show that another system is perferable - for example, a 115 kV

subtransmission system or a combined 69 kV and 34.5 kV subtransmission system in which the 34.5 kV portion of the system is reduced from that currently employed.

The transmission line construction costs assume that FIIP finances the construction of a transmission circuit to a new south delivery point and also constructs the delivery point substation. FIIP may be able to justify BPA construction and financing of the new delivery point. This would reduce project long range transmission costs by $1,081,000.

3. Substation Construction

Long-range substation construction development costs include the delivery point substation construction items and a rebuild of all distribution substations except Charlo substation. A rebuild of the distribution substations is recommended for three reasons:

a. The gradual phaseout of the 34.5 kV system will require eventual rebuilds of the distribution substations inasmuch as their high side structure is designed for the present 34.5 kV.

b. The loads on many of the distribution system substations will exceed transformer capacity by the year 2010, thereby requiring major additions to the substation or a replacement of the substation.

c. Several of the substations are in relatively poor condition and should be rebuilt to improve system reliability, operational characteristics, and safety. (We note in several cases, reclosers at the substations are mounted at heights which violate the National Electric Safety Code).

4. Distribution System Construction

Major construction items for the distribution system were selected to reduce feeder main loads and associated line losses and to improve voltage performance. Those parts of feeders which will be loaded to over 50 percent of rated capacity during the next 25 years were considered candidates for reconductoring. The reconductored sizes were based on an economical conductor size analysis. In general, the feeder mains were sized at either 556 kcm Al., 3/0 Al., or 1/0 Al., depending on the projected loads.

Chapter 5

FEDERAL APPROPRIATIONS FOR CONSTRUCTION OF POWER SYSTEM

In 1904 Congress, by the Act of April 23, 1904 (33 State. 300), directed the Secretary of the Interior to survey the Flathead Indian Reservation and to have the lands classified as to their potential for agriculture, and for other purposes. Surveys and investigations were funded by federal appropriations.

The Act of May 29, 1908, (34 Stat. 444) provided for construction of an irrigation system to serve Indian-owned allotted lands and also the unallotted lands which were to be opened for entry. Federal funds were provided over the years for such development.

Repayment to the United States by entrymen for the costs of the irrigation system was not dependable and over the years several attempts were made to insure that repayment of the federal funds would be made. Eventually the Act of May 25, 1948 (62 Stat. 269) was passed by Congress prescribing in much more detail the terms of repayment, the provisions of net power revenues to assist in repayment and the priorities for use of the net power revenues, and for amended repayment contracts to implement the procedure.

At the time of the 1948 Act, the reimbursable irrigation system construction costs outstanding were $9,226,811.87. The reimbursable power system construction costs as of the same time were $941,793.79.

The 1948 Act, in Section 5(c), also authorized the appropriation of an additional $1,000,000 to continue the construction of the irrigation and power systems of the project, the amounts to be added to the construction costs which are reimbursable. The record is not clear as to how much of these funds ultimately went to irrigation system construction, and how much to power system construction.

Since 1948 substantial additional federal appropriations have been made. The financial records are not all available before 1955, at which time the St. Ignatius headquarters of FIIP was made the office of accounts for the project. The St. Ignatius office has continued to be the office of accounts since then.

The records in the FIIP accounting office indicate that from 1955 to 1985 there have continued to be federal appropriations through BIA Advice of Allottments for the power system construction, the net amount of which has been $3,988,571.63. These are shown on Table 5-1. As these amounts have been expended they have been added in the year expended to the reimbursable totals for power system construction Account 14 x 2301-024, and are listed on Table 5-2. Repayment of these additional amounts has been scheduled by adding a new series of payments for each year of additional expenditure to be paid off in 25 years from the year of expenditure. This is in accord with the terms of the 1948 Act and the repayment contracts. The total expended through Account 024 through 1984 has been $5,539,991.10, and when adjusted for the 1948 credit, it is $5,503,481.31.

Additional federal appropriations were also made available for irrigation system construction. Advice of Allotments from BIA have been received in varying amounts from 1955 to 1985 in the amount of $2,602,276.07 for irrigation, as shown on Table No. 5-3. It is understood that the last three items on Table No. 5-3 may relate to Safety of Dams funds and the Kootenai Falls studies which have been terminated, and may not be reimbursable. It is understood that in September 1985 the amount for the Kootenai Falls studies was transferred to the Power Division accounts, from where it has been expended originally. This change is not shown in the tables in this report.

After the funds have been expended for irrigation system construction, they have been scheduled for repayment over a period of 50 years from the year the funds were expended, which is in accord with the 1948 Act and the repayment contracts. The reimbursable amounts expended by the Irrigation Division are listed in Table 5-4, the total of which is $12,492,893.50.

In the repayment of both the maturing installments of power construction costs and irrigation construction costs, the payments have been made from net power revenues, and none have been made by direct assessments on the land.

All other funds which have been used for power system construction extensions and improvements have been from gross power revenues and are accounted for in Account 470, which is considered to be non-reimbursable, in the amount of $3,928,978.49 through 1984. These amounts are tabulated on Table 5-5 and the subject of extensions and improvements is discussed further in Chapter 9.

Table 5-1

FLATHEAD INDIAN IRRIGATION PROJECT

Funds Appropriated to Project by Advice of Allotments
for Construction, Power; Account 14x2301-024

Date of Advice of Allotment	Description	Amount
7-29-55	Establish balance from Area Office	11,712.83
7-31-56	Advice of Allotment #37	30,000.00
7-19-57	Advice of Allotment #(1958)	50,000.00
7-31-57	Adjustment of Allotment(1958) #183	(50,000.00)
7-31-57	Adjustment of Allotment(1958) #183	60,000.00
7-24-58	Advice of Allotment #257	66,400.00
7-14-59	Advice of Allotment #107	40,600.00
7-6-60	Advice of Allotment #45	75,000.00
8-30-61	Advice of Allotment #176	115,000.00
8-23-65	Advice of Allotment #188	340,200.00
8-3-66	Advice of Allotment #174	377,350.00
3-29-67	Advice of Allotment #1232	40,000.00
7-24-67	Advice of Allotment #124	20,000.00
8-7-67	Advice of Allotment #144	155,000.00
8-28-68	Advice of Allotment #270	241,035.00
5-26-69	Advice of Allotment #1606 Withdrawal	(31,000.00)
12-15-69	Advice of Allotment #790	265,000.00
8-28-70	Advice of Allotment #458	268,500.00
12-14-71	Advice of Allotment #726	67,458.00
1-20-72	Advice of Allotment #725	3,384.00
12-10-73	Advice of Allotment #780	215,000.00
11-18-74	Advice of Allotment #170	235,000.00
2-27-76	Advice of Allotment #576	202,000.00
7-26-76	Advice of Allotment #2056	47,000.00
10-27-76	Advice of Allotment #97	202,000.00
10-28-77	Advice of Allotment #59	300,000.00
1-9-79	Advice of Allotment #101	300,000.00
8-20-79	Advice of Allotment #430	(85,000.00)
11-13-79	To Transfer 023 to 024 Unob Allot	150,000.00
2-5-80	Advice of Allotment #238	340,000.00
11-31-81	Advice of Allotment #48	(63,068.20)
	TOTAL FOR PERIOD OF RECORD	$3,988,671.63

Data from General Ledger Records of Project, at St. Ignatius.
Records not available prior to 1955.

Table 5-2

FLATHEAD INDIAN IRRIGATION PROJECT

Capital Expenditures by Power Division
for Additions to Power System
from Federal Appropriations Advice of Allotments
(Account 024)

Prior to	$941,793.79
5-26-48	<36,509.79>
5-26-48 to 12-31-49	339,518.24
1950	139,022.30
1951	105,999.05
1952	28,252.04
1953	33,450.48
1954	46,745.88
1955	56,150.43
1956	14,878.91
1957	31,393.37
1958	73,660.69
1959	35,376.55
1960	57,259.44
1961	88,426.00
1962	107,602.83
1963	4,935.21
1964	1,500.00
1965	6,875.15
1966	309,640.56
1967	364,424.53
1968	95,496.33
1969	275,115.99
1970	245,618.09
1971	227,141.90
1972	144,606.03
1973	37,838.15
1974	34,399.93
1975	361,523.99
1976	108,592.86
1977	232,032.22
1978	314,782.33
1979	178,472.62
1980	295,421.06
1981	132,981.25
1982	56,983.20
1983	12,079.70
1984	-0-
	$5,503,481.31

Table 5-3

FLATHEAD INDIAN IRRIGATION PROJECT

Funds Appropriated to Project by Advice of Allotments for Irrigation Construction, Account 14x2301-023

Date of Advice of Allotment	Description	Amount
7-29-55	Establish balance from Area Office	16,105.15
1-16-56	Advice of Allotment #283 (Additional)	500.00
7-31-56	Advice of Allotment #37	120,000.00
5-23-57	Advice of Allotment for 1958	20,000.00
7-19-57	Advice of Allotment (1958)	170,000.00
7-19-57	Adjustment of Allotment (1958) #183	(170,000.00)
7-31-57	Advice of Allotment (1958) #183	160,000.00
12-31-57	Advice of Allotment #550	14,873.00
3-28-58	Advice of Allotment #832	5,000.00
7-24-58	Advice of Allotment #257	250,000.00
11-24-58	Additional Allotment #607	35,000.00
4-13-59	Additional Allotment #968	10,000.00
7-14-59	Advice of Allotment #107	100,000.00
11-10-59	Advice of Allotment Adjustment #535	(30,000.00)
1-19-60	Advice of Allotment	3,613.00
7-6-60	Advice of Allotment #45	100,000.00
12-20-60	Advice of Allotment #569A	12,562.00
8-30-61	Advice of Allotment #176	100,000.00
11-14-61	Advice of Allotment #439	6,850.00
9-24-62	Advice of Allotment #179	7,000.00
6-5-63	Advice of Allotment #1299	4,600.00
8-23-65	Advice of Allotment #188	238,800.00
5-23-66	Advice of Allotment #1386 Withdrawal	(14,615.00)
5-31-66	Advice of Allotment #1455 Withdrawal	(20,000.00)
8-3-66	Advice of Allotment #174	199,615.00
3-29-67	Advice of Allotment #1232	(40,000.00)
7-24-67	Advice of Allotment #124	20,000.00
8-7-67	Advice of Allotment #144	81,000.00
9-29-67	Advice of Allotment #338	15,000.00
9-5-74	Advice of Allotment #83	45,000.00
9-30-77	Advice of Allotment (Drought Relief)	1,140,000.00
10-28-77	Advice of Allotment #59	200,000.00
12-8-77	Cancel Advice of Allotment Sept. 1977	(1,140,000.00)
1-9-79	Advice of Allotment #101	275,000.00
11-13-79	To Transfer 023 to 024	(150,000.00)
2-5-80	Advice of Allotment #238	160,000.00
11-12-81	Advice of Allotment #48	(86,627.08)
8-25-83	Advice of Allotment #1060 (Crow Dam)	300,000.00
5-14-84	Advice of Allotment #560 (Crow Dam)	300,000.00
4-19-85	Advice of Allotment #525 (Crow Dam) (Expense for Kootenai Falls)	143,000.00
	TOTAL FOR PERIOD OF RECORD	$2,602,276.07

Data from General Ledger Records of Project, at St. Ignatius. Records not available prior to 1955.

Table 5-4

FLATHEAD INDIAN IRRIGATION PROJECT

Capital Expenditures by Irrigation Division
(by Years)

Year or Period	Irrigation System Construction Costs	Cumulative Total
Costs to May 25, 1948	$9,226,811.87	$9,226,811.87
Costs 5-26-48 to 12-31-49	43,027.89	9,269,839.76
1950	533,640.47	9,803,480.23
1951	96,267.03	9,899,747.26
1952	67,088.81	9,966,836.07
1953	130,495.66	10,097,331.73
1954	149,673.71	10,247,005.44
1955	281,681.00	10,528,686.44
1956	146,293.66	10,674,980.10
1957	184,712.16*	10,859,692.26
1958	243,118.08	11,102,810.34
1959	123,488.11	11,226,298.45
1960	121,469.39	11,347,767.84
1961	72,348.16	11,420,116.00
	111,246.88(1)	11,531,362.88
1962	39,606.29	11,570,969.17
1963	9,105.31	11,580,074.48
1964	6,850.00	11,586,924.48
1965	37,609.40	11,624,533.88
1966	89,381.15	11,713,915.03
1967	266,395.89	11,980,310.92
1968	70,601.66	12,050,912.58
1969	4,136.32	12,055,048.90
1970	15,056.99	12,070,105.89
1971	13.33	12,070,119.22
1972	-0-	12,070,119.22
1973	-0-	12,070,119.22
1974	-0-	12,070,119.22
1975	10,419.68	12,080,538.90
1976	34,580.32	12,115,119.22
1977	93,816.67	12,208,935.89
1978	90,007.87(2)	12,298,943.76
1979	64,465.12	12,363,408.88

Table 5-4

Year or Period	Irrigation System Construction Costs	Cumulative Total
1980	104,306.55	12,467,715.43
1981	9,566.73	12,477,282.16
1982	-0-	12,477,282.16
1983	-0-	12,477,282.16
1984	15,611.34	12,492,893.50

Data from Project Spread Sheet and General Ledger 126.1

Notes:

* Adjustment - Spread Sheet and General Ledger 126.1

(1) "to complete JV12-6 Dec. 1961 correction"

(2) Correction - see General Ledger 126.2

Table 5-5

FLATHEAD INDIAN IRRIGATION PROJECT

Power System

Power System Extensions and Improvements
paid for from Current Electric Operating Revenues
charged to Account 470

Calendar Year or Period	Construction Expenditure (Account 470)	Cumulative Total
5-26-48 to 12-31-49	$106,364.27	$ 106,364.27
1950	66,018.51	172,382.78
1951	49,766.45	222,149.23
1952	65,060.41	287,209.64
1953	117,559.46	404,769.10
1954	91,836.09	496,605.19
1955	73,523.72	570,128.91
1956	61,370.54	631,499.45
1957	97,586.82	729,086.27
1958	71,000.36	800,086.63
1959	75,767.97	875,854.60
1960	81,505.09	957,359.69
1961	57,816.06	1,015,175.75
1962	79,154.70	1,094,330.45
1963	76,306.60	1,170,637.05
1964	82,990.24	1,253,627.29
1965	83,909.44	1,337,536.73
1966	65,248.32	1,402,785.05
1967	74,569.15	1,477,354.20
1968	91,749.22	1,569,103.42
1969	63,228.38	1,632,331.80
1970	94,534.70	1,726,866.50
1971	55,373.37	1,782,239.87
1972	42,816.83	1,825,056.70
1973	77,711.18	1,902,767.88
1974	76,486.41	1,979,254.29
1975	75,668.36	2,054,922.65
1976	68,076.94	2,122,999.59
1977	70,459.21	2,193,458.80
1978	59,127.96	2,252,586.76
1979	97,659.28	2,350,246.04
1980	63,513.41	2,413,759.45
1981	131,729.05	2,545,488.50
1982	426,401.66	2,971,890.16
1983	486,990.29	3,458,880.45
1984	470,098.04	3,928,978.49

Chapter 6

Gross Revenue

The Act of May 25, 1948 (62 Stat. 269) specified that the repayment of all reimbursable costs incurred for the construction of the irrigation and power systems of the Flathead Indian Irrigation Project shall be accomplished as prescribed in the Act. It especially lists the items to be paid and the order of priority in which payments shall be made from the net revenues of the power system of the Project.

The 1948 Act prescribed how the net revenues would be determined, as stated in Section 2(b) of that Act as follows:

> "(b) The net revenues heretofore and hereafter accumulated from the power system shall be determined by deducting from the gross revenues the expenses of operating and maintaining the power system, and the funds necessary to provide for the creation and maintenance of appropriate reserves in accordance with section 3 of the Act of August 7, 1946 (60 Stat. 895)....." (emphasis added)

The "gross revenues" are the subject of this chapter.

There is a definition of what revenues should be included as gross revenues in Section 6(b) at pages 13 and 14 of the Repayment Contract of September 24, 1949, as follows:

> "b).....The gross revenues of the power system from which the net revenues are to be computed in accordance with the Act of May 25, 1948, shall include those derived from the sale of electrical energy by this project, from the operation by the project of facilities for the generation, transmission, or distribution of electrical energy that have been constructed or acquired by the Project with reimbursable funds, from the

rental of rights-of-way, property or water rights held by the Project for present or future use in connection with the generation, transmission, and distribution of electrical energy, and from power development of any sort made by or on account of the Project, but shall not include those derived from the rental of Indian lands for power development which are payable to the Indians of the Flathead Reservation as a tribe under the Act of March 7, 1928, or those otherwise provided for by or pursuant to law."

Over 99 percent of the gross revenues of the power system of the Flathead Indian Irrigation Project come from sales of electric power as shown by years from 1955 through 1984 on Table No. 6-4, by classes of customer.

In 1955 the electric sales were $682,229 and in 1984 they were $8,661,347, which is almost 12.69 times as much as in 1955. The greatest increase in dollar amount has been in the last few years because of the increase in cost of Bonneville Power which has had to be passed on to the customers of FIIP. The increase in the cost of the block of power from Montana Power Company due to the relicensing of Kerr Dam has not yet been felt by the customers of FIIP, because the increased billing from Montana Power Company will start in October, 1985. FIIP at this time has not made any change in its rates to its consumers to reflect its increased cost.

The greatest part of the electric sales of FIIP comes from the domestic customers in the towns and rural area. A summary is shown below of the average use and cost per year in recent years to the residential customers of FIIP.

Table 6-1

Residential and Rural Customers

	Average Total Number Residential Customers	Average Annual Residential Use in kwh	Average Residential Annual Bill
1977	7,885	12,260	$216.85
1978	8,216	12,880	227.67
1979	8,480	13,660	241.98
1980	8,718	13,420	236.83
1981	8,906	13,290	234.45
1982	9,036	14,810	275.60
1983	9,221	13,350	371.96
1984	9,399	14,110	518.47

The commercial and industrial use is the greatest per customer use, as might be expected. A summary of the average use and costs for commercial and industrial users of the project is as follows:

Table 6-2

Commercial and Industrial Customers

	Average Number of Commercial and Industrial Customers	Average Annual Electric Use in kwh	Average Annual Commercial and Industrial Electric Bill
1977	1,436	32,430	$ 823.50
1978	1,486	36,570	846.77
1979	1,542	38,270	938.67
1980	1,599	35,830	836.69
1981	1,644	35,820	875.22
1982	1,701	37,660	954.69
1983	1,733	45,890	1,432.35
1984	1,753	47,220	2,062.77

The total number of customers being served and the electric energy sold on the Project is tabulated as follows:

Table 6-3

Summary of Customers
of
Flathead Indian Irrigation Project

	Average Number of Customers	Electric Energy Sold (in 1000 kwh)	Total Revenue from Electric Sales $
1977	11,195	162,057	$3,003,050
1978	11,637	171,660	3,235,239
1979	12,031	196,730	3,609,091
1980	12,405	185,114	3,512,979
1981	12,715	193,103	3,639,559
1982	12,945	216,226	4,333,493
1983	13,136	204,553	6,083,038
1984	13,312	222,647	8,661,347

The energy used by the Power Division at its various facilities such as substations, warehouse and office, is not included in the electric sales. The use by the Power Division for its in-plant purposes is now about 700,000 kilowatt-hours per year.

Also, not included in electric sales for determining gross revenue of the Power Division is the power delivered to and used by FIIP's large pumping plant located on the Flathead River about 2 miles downstream from Polson, consisting of 3,000 horsepower pumps. The power used by it fluctuates greatly from year to year depending on the need to replenish the Pablo Reservoir and the canals. The power for this pumping plant is billed direct to the Irrigation Division of FIIP, and payment made to Montana Power Company from Irrigation Division funds without being accounted for as part of gross revenues of the Power Division. The amount of power used by the pumping plant has varied from a low of 89,965 kilowatt-hours in 1983 to a high of 27,021,235 kilowatt-hours in 1973 which was a dry year. This great variation has an effect on how much power must be purchased from Bonneville Power Administration for such a year.

The miscellaneous other electric revenue represents less than one percent of FIIP's gross power revenues, both of which are shown on Table 6-5. The gross power revenues for 1985 are expected to approximate $10,000,000.

Table 6-4

FLATHEAD INDIAN IRRIGATION PROJECT - POWER DIVISION

Operating Revenue from Electric Sales
(in Dollars)

Calendar Year	Residential or Domestic	Rural	Commercial & Industrial	Street Lighting	Area Lighting	Sales to other Utilities	Intra-Project Sales	Total Operating Revenue
1955	$148,168.73	$234,785.99	$184,868.76	$ 4,956.10	$	$101,939.58	$ 7,509.84	$ 682,229.00
1956	156,841.41	243,538.22	198,002.32	5,004.48		106,200.00	5,319.20	714,905.63
1957	161,254.52	253,468.34	195,955.90	5,009.73		114,900.00	5,966.80	736,555.29
1958	159,293.16	261,236.28	194,694.44	5,030.51		121,600.00	5,329.42	747,183.81
1959	179,326.60	289,756.34	246,536.60	5,420.87		81,600.00	4,812.53	807,452.94
1960	190,832.33	312,443.97	284,640.39	5,578.79		72,100.00	5,903.38	871,498.86
1961	195,171.40	325,820.98	324,030.13	7,242.99		99,000.00	4,983.07	956,248.57
1962	202,388.95	341,586.14	357,200.45	8,218.08		111,100.00	4,881.60	1,025,375.22
1963	210,224.28	359,283.51	395,803.43	9,255.79		126,000.00	6,310.91	1,106,877.92
1964	217,921.01	371,222.06	424,673.65	10,028.83	5,271.00	124,600.00	5,860.20	1,159,576.75
1965	227,527.59	388,801.57	447,165.33	10,134.12	10,448.15	124,600.0	4,768.88	1,213,445.64
1966	233,277.62	403,290.11	496,931.01	11,685.73	15,339.15	123,700.00	6,475.74	1,290,699.36
1967	244,040.17	423,722.72	516,566.98	12,991.06	19,679.65	65,000.00	7,157.32	1,289,157.90
1968	255,165.50	454,518.42	519,651.48	12,976.03	23,603.00		7,137.14	1,273,051.57
1969	276,742.93	495,570.98	581,844.30	19,868.44	26,376.21		6,877.65	1,407,280.51
1970	270,234.87	516,270.15	570,100.18	23,545.08	30,605.30		6,073.64	1,416,829.22
1971	297,566.77	560,805.66	636,940.36	26,970.32	35,174.09		6,362.52	1,563,819.72
1972	326,667.85	634,745.20	703,808.38	25,934.21	39,728.61		5,752.30	1,736,636.55
1973	332,700.75	665,634.31	750,693.48	27,801.62	44,680.77		8,586.73	1,830,097.66
1974	352,509.39	711,218.02	767,040.68	27,687.29	46,613.28		5,651.12	1,910,719.78
1975	388,376.57	811,556.57	804,245.25	27,981.90	49,982.60		6,266.23	2,088,409.12
1976	487,180.88	1,057,121.83	1,026,315.36	34,387.49	60,926.00		8,064.97	2,673,996.53
1977	526,150.22	1,183,734.12	1,182,540.71	35,949.60	64,677.00		9,998.83	3,003,050.48
1978	568,853.06	1,301,675.71	1,258,302.87	35,444.15	64,384.00		6,579.55	3,235,239.34
1979	592,073.94	1,459,933.99	1,447,424.01	35,981.60	66,086.00		7,591.93	3,609,091.47
1980	593,270.95	1,471,426.27	1,337,870.19	36,137.16	68,011.00		6,263.02	3,512,978.59
1981	595,629.77	1,492,349.87	1,438,861.60	36,954.80	70,052.30		5,711.11	3,639,559.45
1982	708,760.76	1,780,629.32	1,623,935.81	38,951.13	74,117.10		7,090.73	4,233,492.85
1983	943,125.17	2,486,752.91	2,482,265.81	57,095.22	103,952.15		9,847.09	6,083,038.35
1984	1,277,748.75	3,595,352.38	3,616,039.76	56,703.26	102,294.25		13,208.75	8,661,347.15

Table 6-5

FLATHEAD INDIAN IRRIGATION PROJECT

Power Division

Gross Revenues in Dollars

Year	Total Electric Operating Revenue	Misc. other Electric Revenue	Power Division Gross Revenues
1955	682,229.00	2,094.98	684,323.98
1956	714,905.63	3,650.53	718,556.16
1957	736,555.29	12,142.27	748,697.56
1958	747,183.81	17,765.15	764,948.96
1959	807,452.94	2,680.10	810,133.04
1960	871,498.86	22,595.02	894,093.88
1961	956,248.57	8,099.45	964,348.02
1962	1,025,375.22	5,068.20	1,030,443.42
1963	1,106,877.92	5,372.08	1,112,250.00
1964	1,159,576.75	12,994.95	1,172,571.70
1965	1,213,445.64	12,391.39	1,225,837.03
1966	1,290,699.36	6,369.64	1,297,069.00
1967	1,289,157.90	13,605.13	1,302,763.14
1968	1,273,051.57	11,433.80	1,284,485.37
1969	1,407,281.51	21,962.12	1,429,243.63
1970	1,416,829.22	28,941.95	1,445,771.17
1971	1,563,819.72	41,099.24	1,604,918.96
1972	1,736,636.55	26,900.01	1,763,536.56
1973	1,830,097.66	35,189.42	1,865,287.08
1974	1,910,719.78	30,049.58	1,940,769.36
1975	2,088,409.12	66,513.34	2,154,922.46
1976	2,673,996.53	58,547.68	2,732,544.21
1977	3,003,050.48	56,606.58	3,059,657.06
1978	3,235,239.34	83,463.21	3,318,702.55
1979	3,609,091.47	124,464.75	3,733,556.22
1980	3,512,978.59	145,186.77	3,658,165.36
1981	3,639,559.45	81,111.92	3,720,671.37
1982	4,233,492.85	142,802.34	4,376,295.19
1983	6,083,038.35	149,701.71	6,232,740.06
1984	8,661,347.15	71,505.29	8,732,852.44

Chapter 7

OPERATION AND MAINTENANCE EXPENSES OF POWER DIVISION

The Operation and Maintenance (O&M) expenses of the Power Division are recorded first in a system of subsidiary accounts which follow the Federal Power Commission (FPC) account numbering system. This FPC Uniform System of Accounts has been prescribed by the FPC for many years for the use of electric utilities who must file reports with the FPC. Over the years it has been found to be effective by electric utilities for keeping account of the various utility functions such as generation, purchased power, transmission, distribution, billing and collection, administration, etc. The expenses of these several functions are set forth on Table No. 7-1 entitled "Operation and Maintenance Expenses - Power - Account 700". At FIIP those subsidiary accounts are subsequently consolidated into Project Account 700 representing Operation and Maintenance Expenses - Power.

Column No. 1 of Table 7-1 shown as "Electric Generation - Hydraulic" includes the O&M expenses related to the Big Creek hydroelectric generating plant of FIIP located in the foothills east of Polson. It is a small plant with a capacity of 360 kilowatts which operates on a nearly continuous basis, supplying about 2,200,000 kilowatt-hours a year to FIIP. It was built in about 1915 and later acquired by FIIP. The average O&M cost of generating power over the last 29 years at this plant has been about 5 mills per kilowatt-hour, which is excellent.

Column No. 2 of Table 7-1 shown as "Purchased Power" lists the costs of power purchased by FIIP from others. There are two sources being used by the

Project for purchase of needed power to serve its customers.

Montana Power Company Power

The first source is the block of low-cost power, also referred to as bargain power, from Montana Power Company as provided for in the original license for Kerr Dam, and similarly provided for in the new license issued jointly to the Montana Power Company and to the Confederated Salish and Kootenai Tribes by the Federal Regulatory Energy Commission on June 17, 1985, with an effective date of September 5, 1985.

The amount of power to be made available by Montana Power Company to the United States for and on behalf of FIIP is discussed in Chapter 1. The amounts available, if taken at 100 percent load factor, will make available to FIIP approximately 84,580,000 kilowatt-hours per year. This is approximately the amount which FIIP has been taking delivery of in recent years. The rates paid during the years in which power was taken under terms of the 1930 license averaged about 1.58 mills per kilowatt-hour and the block of low-cost power cost FIIP about $135,000 per year.

In the new license issued by the Federal Energy Regulatory Commission on July 17, 1985, for Kerr Dam, the rate established for the low-cost block of power starts during the first license year at 12 mills per kilowatt-hour. Taking delivery of the entire block of low-cost power of about 84,580,000 kwh per year will cost the Project $1,014,960 per year, which will be an increase of about $880,000 for year. Nevertheless, this will represent a saving of about $900,000 a year from

what the power would cost if purchased from Bonneville Power Administration (Bonneville) at about 23 mills per kilowatt-hour. However, if the same amount of energy were to be purchased from Bonneville at 100 percent load factor the average price would be less, and the saving by buying the block of power from Montana Power Company would be about $654,000 in the first year.

The increased cost of the block of low-cost power available from Montana Power Company has not been added specifically to the electric rates of the customers of FIIP. The results of the higher charges by Montana Power Company will be reflected in its power bills to FIIP starting in October, 1985.

Bonneville Power

The second source of purchased power for the FIIP is from Bonneville Power Administration. As an agency of the United States, FIIP qualifies for Bonneville power at BPA's wholesale firm preference power rate.

Bonneville commenced delivery of power to FIIP on August 1, 1967.

A revised power sales contract and an Amendatory Agreement were entered into on August 1, 1982, by and between the United States of America, Department of Energy, acting through the Bonneville Power Administration and the United States Bureau of Indian Affairs (Flathead). The contract obligates Bonneville to serve all or a portion of FIIP's firm load requirements placed on Bonneville pursuant to the contract.

The amount of power which has been purchased by FIIP from Bonneville in terms of electric energy is shown at Column 3 of Table No. 3-1 (in Chapter 3). Starting at 1,437,000 kilowatt-hours in 1967, the power purchased from Bonneville has increased over the years, and in 1984 was 161,476,000 kilowatt-hours.

As power use on the Reservation grows, it will be necessary to draw on Bonneville for the increasing amounts of power because FIIP is already using the entire amount available from the low-cost block of power from Montana Power.

Bonneville in recent years found it necessary to increase its rates very substantially. This relates to higher costs generally, but in particular because of the much higher costs of the nuclear plants to which it was committed for future sources of power over and above the hydroelectric base which is no longer enough to meet its customers' needs, especially in dry years. These higher costs are reflected in the Purchased Power Costs in Column 2 of Table No. 7-1.

By comparison, in 1956 the cost of purchased power for FIIP represented 11 percent of the total costs of O&M, whereas in 1984 purchased power was 42 percent of the total O&M costs. The present Administrator of Bonneville has, in several recent public statements, indicated that he now foresees that additional large rate increases by Bonneville will not be necessary in the near-term future.

Columns 3 and 4 of Table No. 7-1 show the cost of transmission O&M and distribution O&M respectively. In recent years the figures have diminished somewhat for transmission but have increased greatly for distribution. It has been

indicated by the Power Superintendent that this may reflect a different allocation of charges by present personnel as compared with the manner in which charges were allocated by previous personnel.

Column 5 of Table 7-1 includes charges for "Accounting, Billing and Collection". There has not appeared to be any especially good explanation of the reason for the greatly reduced cost of these functions in 1984, when the charges shown are less than half of the two previous years. This may again reflect the elimination of charges for personnel who were not performing Power Division functions. The appropriate level of charges for these functions should be reviewed by the next audit of FIIP.

Column 6 of Table 7-1 covers the costs of the "Administration" function of the Power Division. The costs allocated to this function have increased markedly in the last four years, even though no significant change in the organization is evident in that same period. It is recommended that the next audit of the Power Division examine the expenses allocated to Administration and the functions, to determine whether they are appropriately charged to Administration, Power Division, or should be more appropriately charged to other functions.

FIIP also carries an O&M account identified as the R-700 account to which is charged costs of "replacement of existing plant" as an Operation and Maintenance expense. These expenditures are listed on Table No. 7-2. Much of the work charged to this account is of a construction nature, but in the nature of

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replacement rather than being an extension of the system. The Power Superintendent acknowledges that on some work orders it is a matter of judgment as to which account it should be charged, whether replacement which is O&M, or improvement which is a capital expenditure.

The total Operation and Maintenance Costs of the power system and of the R-700 Replacement Account are included on Table 7-3, with a combined total shown in Column 3. In 1955 the combined total O&M was $446,931, and it 1984 it was $6,258,356.

The Accounting office at FIIP headquarters was helpful in locating files going back to the beginning of their period of record in 1955 and to tabulate the O&M expenses for the years of record as well as other data. This made it possible to develop the great number of figures in this report, which otherwise would not have been available, and the analysis of the implementation of the repayment contracts.

In reviewing the relative magnitude of the operation and maintenance expenses of the Power Division as compared to its gross revenues and the net power revenues, it is noted that the payments from the net power revenues in the 1950's represented amounts averaging about 30 percent of the gross power revenues. In more recent years this proportion has gradually gone down, so that in the last two years, 1983 and 1984, the payments from net power revenues were only about 6 percent of the gross power revenues. This is because O&M has become a much greater percentage of the gross revenues. The increased cost of purchased power has represented the greatest increase in the costs of O&M.

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In reviewing the relative magnitude of the operation and maintenance expenses of the Power Division as compared to its gross revenues and the net power revenues, it is noted that the payments from the net power revenues in the 1950's represented amounts averaging about 30 percent of the gross power revenues. In more recent years this proportion has gradually gone down, so that in the last two years, 1983 and 1984, the payments from net power revenues were only about 6 percent of the gross power revenues. This is because O&M has become a much greater percentage of the gross revenues. The increased cost of purchased power has represented the greatest increase in the costs of O&M.

In conclusion:

1. There appears to be a lack of consistency in the operation and maintenance expense by functions year to year. It is recommended that periodic audits of the Power Division be performed in the future by persons experienced in electric utility operation and accounting.

2. By far the largest portion of gross revenues is used for operation and maintenance expenses. It is also for this reason it is recommended that the periodic audits devote more attention to the O&M expenses and activities.

Table 7-1
FLATHEAD INDIAN IRRIGATION PROJECT
Operation and Maintenance Expenses - Power - Account 700

Year	1 Electric Generation Hydraulic	2 Purchased Power	3 Trans-mission O&M	4 Distri-bution O&M	5 Accounting, Billing, Collection	6 Adminis-tration	7 Total O&M	8 Equipment	9 O&M Construc-tion	10 Reimb. Work Orders	11 Total
1955											
1956	$4,836	$ 47,853	$3,280	$94,405	$ 51,117	$ 97,608	$ 299,100	$19,732			$ 318,831
1957	5,479	70,996	9,453	94,372	55,687	111,338	347,325	18,380			365,705
1958	6,792	98,704	6,179	95,460	64,839	110,629	382,603	6,805		$18,463	407,871
1959	4,901	102,293	3,696	74,822	68,764	120,558	375,034	11,957		15,231	402,222
1960	5,990	131,579	7,715	92,375	70,281	137,419	445,359	5,245		6,069	456,673
1961	5,485	191,456	9,142	88,637	62,944	121,852	479,517	18,648	$ 945	5,970	505,080
1962	5,824	236,197	5,834	96,008	72,730	142,878	559,471	<4,494>	21,788	<7,434>	569,331
1963	6,820	309,114	4,138	83,830	70,575	145,496	619,973	27,179	143,905	955	792,012
1964	4,947	288,712	4,697	89,593	70,108	166,689	624,746	42,446	30,203		697,395
1965	5,060	309,033	5,561	74,990	75,469	168,296	638,409	7,244	86,804	537	732,994
1966	4,430	381,554	5,835	79,700	74,211	151,109	696,839	13,944	11,000	1,227	723,010
1967	2,541	404,761	3,849	79,997	76,280	174,952	742,380	52,942	16,605	3,587	815,514
1968	3,207	377,813	11,320	107,990	84,202	176,965	761,497	40,152		10,131	811,780
1969	4,544	426,285	8,555	95,684	89,433	182,443	806,944	8,892	12,813	18,910	847,559
1970	1,497	295,438	6,871	124,813	97,020	214,655	740,294	22,870	4,740	4,858	772,762
1971	2,441	260,382	6,593	143,119	98,526	227,706	738,767	41,076	36,145	2,292	818,280
1972	2,895	322,535	5,922	129,155	111,500	214,817	786,824	<20,771>	<36,145>	<2,292>	727,616
1973	2,563	318,689	5,237	123,399	118,174	226,747	794,809	1,076			795,885
1974	2,803	410,578	10,920	145,749	139,258	240,728	950,036	26,730			976,766
1975	186,815	197,775	15,429	239,634	178,132	185,447	1,003,232	23,295			1,026,527
1976	4,603	329,466	8,449	142,038	148,358	191,877	824,791	206,014			1,030,805
1977	3,447	460,947	14,334	227,908	187,870	360,329	1,254,835	111,480			1,366,315
1978	4,463	484,989	13,190	291,856	212,089	394,645	1,401,232	77,880			1,479,112
1979	4,896	678,866	25,554	266,417	227,117	398,484	1,601,334	22,911		14,672	1,638,917
1980	6,489	942,618	17,664	324,814	278,457	348,596	1,918,638	136,548			2,055,186
1981	7,425	1,426,733	43,620	260,753	294,904	379,442	2,412,877	114,216			2,527,093
1982	7,905	2,140,215	26,645	378,478	345,542	497,890	3,396,675	38,793			3,435,468
1983	10,329	3,308,693	14,442	590,557	465,273	694,139	5,083,433	86,474			5,169,907
1984	22,748	3,869,839	14,794	744,816	175,314	774,643	5,602,153	184,218	4,689		5,791,060

Table 7-2

FLATHEAD INDIAN IRRIGATION PROJECT
Operation and Maintenance - Power - Account R-700 (Replacement of Existing Plant)

	Elec. Gen. Hydraulic Maint.	Transmission Operation	Transmission Maint.	Distribution Operation	Distribution Maint.	Accounting, Billing, Collection	Administration	Total O&M Account R-700
1955								
1956	$ 12		$41,726	$185	$ 86,177			$ 128,101
1957		$8	48,978	497	72,720			122,203
1958			14,438		49,962		$ 490	64,890
1959	6,627		6,153	15	71,942		2,282	87,019
1960	1,699		8,961	93	58,425		2,923	72,101
1961	1,960		9,018	38	72,788		12,193	95,997
1962	2,300		6,745	56	64,090		13,859	87,050
1963			6,579	14	75,799		4,306	86,698
1964	216		12,358	<75>	135,390		10,147	158,036
1965	4,158		12,684	209	158,384		19,865	195,300
1966	61		2,422	219	108,125		5,677	116,504
1967	1,694		12,155		53,066		2,565	69,480
1968	96		18,104		108,249		12,215	138,664
1969	365		4,003		55,250		2,630	62,248
1970	104		2,991	79	103,876		10,375	117,425
1971			2,584		115,391		10,440	128,415
1972	1,526		6,114		312,256		19,036	338,932
1973	48		2,714		421,381		18,297	442,440
1974			32,620		639,854		25,235	697,709
1975			47,901		520,244		28,610	596,755
1976	56		14,560		429,620		21,602	465,838
1977	477		8,457		530,885		28,136	567,955
1978	<65>		8,890		791,240		44,122	844,187
1979	13		73,741		776,704		34,726	885,184
1980	2,302		158,762		1,046,949		43,705	1,251,718
1981			368,779		1,224,713		60,522	1,654,014
1982	112		44,562		711,521		48,867	805,062
1983	89		10,914	220	458,581	$ 5	34,380	504,189
1984	5,020		8,555	938	422,515	24	30,244	467,296

Table 7-3

FLATHEAD INDIAN IRRIGATION PROJECT

Power Division

Operation and Maintenance Expense

Year	1 Operation and Maintenance (Account 700)	2 Replacement of Existing Plant (Account R-700)	3 Total Power System Operation and Maintenance Expense (1+2)
1955			
1956	$318,831	$128,100	$ 446,931
1957	365,705	122,203	487,908
1958	407,871	64,890	472,761
1959	402,222	87,020	489,242
1960	456,673	72,100	528,773
1961	505,080	95,997	601,077
1962	569,331	87,050	656,381
1963	792,012	86,698	878,710
1964	697,395	158,036	855,431
1965	732,994	195,300	928,294
1966	723,010	116,505	839,515
1967	815,514	69,479	884,993
1968	811,780	138,665	950,445
1969	847,559	62,247	909,806
1970	772,762	117,424	890,186
1971	818,280	128,415	946,695
1972	727,616	338,932	1,066,548
1973	795,885	442,439	1,238,324
1974	976,766	697,708	1,674,474
1975	1,026,527	596,756	1,623,283
1976	1,030,805	465,837	1,496,642
1977	1,366,315	567,955	1,934,270
1978	1,479,112	844,187	2,323,299
1979	1,638,917	885,184	2,524,101
1980	2,055,186	1,251,718	3,306,904
1981	2,527,093	1,654,014	4,181,107
1982	3,435,468	805,061	4,240,529
1983	5,169,907	504,189	5,674,096
1984	5,791,060	467,296	6,258,356

Data assembled from accounting files of Project; some files not available before 1955.

Chapter 8

FINANCIAL RESERVES FOR THE POWER DIVISION

Availability of funds is important to support the operations of the Power Division in its role as an active electric utility serving about 14,000 customers, and especially if on a self-sustaining basis.

Current Availability of Funds

The balances in the pertinent cash and budgeting accounts of the Power Division of Flathead Indian Irrigation Project are shown in Table 8-1 (at the end of this chapter) as of December 31 of each year 1957 through 1984. Column 2 lists the balance of FIIP funds on hand in Account 131. Of that, funds have been committed for Undelivered Orders (Account 200.3) listed in Column 9 and Accounts Payable (Account 222) in Column 10. Special Deposit funds and Reserve funds are not included in these accounts.

As of December 31, 1984, the availability of funds was as follows:

Total Funds		
Account 131 - Project Funds on Hand		$2,064,939.51
Obligated Funds		
Account 200.3 - Undelivered Orders	$860,301.02	
Account 222 - Accounts Payable	24,631.98	
		884,933.00
Power Funds on hand unallotted (December 31, 1984)		$1,180,006.51

Data made available just as this report is going "to press" indicates the availability of funds as of September 30, 1985 as follows:

Total Funds		
Accounts 131 - Project Funds on Hand		$2,443,815.49
Obligated Funds		
Account 200.3 - Undelivered Orders	$871,377.91	
Account 222 - Accounts Payable	71,057.14	
		942,435.05
Power Funds Unallotted (September 30, 1985)		$1,501,380.44

In addition to the funds on hand discussed above, there is also a small Power Reserve (Account 130) shown in Column 1 of Table 8-1 currently in the amount of $10,000.

Deposit funds are carried in Account 134 listed in Column 1 of Table 8-2 in the amount of $479,655.52 as of December 3, 1984. These consist of Customer Deposits (Account 224.1) of $268,844.85 and other deposits, including such things as deposits in aid of construction, etc., of $210,810.67 as of December 31, 1984.

An analysis was made of the unallotted funds on hand by comparing them with the Power Division gross revenues by years. The comparison is shown on Table 8-3. It shows for the 28 years from 1957 through 1984 the unallotted funds carried averaged 55 percent of the yearly gross revenue. This is unnecessarily high for an electric utility, which is a type of business with a comparatively steady flow of revenue from its customers as compared with some types of business.

A further analysis was made of the Power Division funds on hand to determine how much of the balance on hand was over and above those funds obligated, such as things on order but not yet delivered, and as accounts payable. Table 8-4 lists these quantities. For instance, Column 5 of Table 8-4 shows the Power Division funds in excess of these already obligated. On December 31, 1984, there was a fund balance of $1,180,007 in excess of obligated funds. In the last few years this fluctuated substantially, but in general it also indicates that the fund balance is unnecessarily high.

It should be emphasized that the funds on hand being discussed are from power revenues of FIIP and are not unexpended general appropriation funds.

Cash Working Allowance

The operation of an electric utility requires a cash working allowance sufficient to meet the cash flow requirements, especially during those months of the year when revenue is below average.

The legislation relating to FIIP, particularly the Act of May 25, 1948, (62 Stat. 269) and the Act of August 7, 1946, (60 Stat. 895), provide for the use of the net revenues of FIIP, after first providing for the expenses of operation and maintenance and for appropriate reserves. The 1948 Act provides for the application of all the net revenues by order of priority for various payments which are a part of FIIP.

In the defining of "Operation and Maintenance" in the 1948 Act and in the repayment contracts, there is no reference to providing for a cash working allowance, but as a matter of satisfactory management it is necessary for meeting cash flow requirements. This is considered a normal and typical operating requirement to meet month-to-month fluctuations of cash inflow and outflow and is not considered to be a reserve, but more correctly a "cash working allowance."

The Federal Energy Regulatory Commission (FERC) policy has been to allow electric utilities a cash working allowance equivalent to the cash flow for a 45-day period. Also, it has been presumed that the elapsed time between payment of current operating expenses and the receipt of revenues to recover those expenses averaged about 45 days, or about one-eighth of a year, and that amount may be allowed in the utility's rate base for computing what its earnings may be.

Thus, FERC generally has allowed a utility to include a cash working allowance equal to one-eighth of its annual operation and maintenance expenses.

In the case of the Power Division of FIIP, the colder winter months are the months of highest power sales and so its revenue in those months is higher. In the summer and fall months the revenue may be lower than the average Operation and Maintenance expenses.

It is recommended that the budget for the power system include, in addition to all of the maintenance and operation items in Account 700 and R-700, a cash working allowance equivalent to one-eighth of the annual operating and maintenance

expense. This amount is not included in the budget as an additional amount to be expended in its entirety to be replaced each successive year, but is there to allow expenses to be paid on a current basis month-by-month even though revenues fluctuate. This would be in the nature of a working fund to be drawn upon during months of lower revenue as compared to the average for the budget year and to meet accounts payable on a timely basis even though cash flow fluctuates. The cash working allowance should be reviewed each year to provide the amount needed to maintain a cash working allowance at the recommended level. This should not be considered as a reserve for emergency conditions but only as a normal cash working allowance.

Emergency Reserve

The Act of August 7, 1946, (60 Stat. 895), provided for creation and maintenance of reserve funds as one of the purposes of the moneys to be collected from power revenues. One of the purposes of the reserve funds was to be for defraying emergency expenses and for insuring continuous operation of the power system, the fund to be maintained at such level, within limits set by the Director of the Bureau of Budget, as may from time to time be prescribed by the Secretary of the Interior.

The Act of December 23, 1981, (95 Stat. 1404), authorized power revenues of FIIP to be available in an amount not exceeding 20 percent of the gross power revenues of the project for the preceding fiscal year, or $750,000, whichever is greater, for extensions and improvements of the power system. There is no reference in the 1981 Act that these amounts would be in the nature of an emergency reserve. An emergency reserve was established in the amount of

$75,000 in Account 130 of FIIP. The accounting records available at FIIP office do not indicate when this Reserve was established. However, their records does show a fund balance continuously from 1957 to the present.

The records also indicate that in 1964, because of an emergency situation at that time, the reserve was drawn down by $65,000 to a remaining balance of $10,000, at which level it remains in 1985.

As discussed above in this chapter FIIP has maintained substantial cash balances of unobligated funds in most years. Fortunately there have not been any major emergency situations which have damaged the physical power system or which have been beyond the ability of FIIP to fund out of its current cash balances, in fact, the several acts of Congress require that no expenditures be made beyond the net power revenues.

However, the physical extent of the system has increased substantially, and because of substantial inflation in the 1970's and early 1980's, the cost of replacing equipment and other facilities today is much greater than in the earlier years of FIIP. Therefore, the financial needs because of an emergency situation requiring replacement of plant facilities would have far greater consequences today. Provision must be made for such an emergency, and the Acts of 1946 and 1948 and 1981 require that this money come from project power revenues.

It is recommended that the Emergency Reserve be increased to $1,000,000, which is about 11 percent of the present gross revenues. Rather than try to establish the new higher level in the Reserve Fund (Account 130) in one fell swoop, it is recommended that net power revenues in the amount of $330,000 be transferred to the Emergency Reserve each year for three years, thus increasing the balance from the present $10,000 to $1,000,000.

It is also recommended that such a reserve would be drawn upon only in emergency situations, and in that event the reserve fund amount would be replenished in the next following year if the expenditure therefrom can readily be met in the following year's budget. If the drawdown of the reserve is large, it is recommended that the fund be rebuilt over a period of more than one year.

It is recommended that the control for the release of said Emergency Reserve be shifted from the Central Office of the BIA to the Area Director.

It is understood that the present funds of the Emergency Reserve (Account 130) of the Power Division are not drawing interest. Because the funds to be used will be from FIIP gross power revenues, it is recommended that steps be taken so that Account 130 funds of the FIIP Power Division be authorized to earn interest as do other project fund balances.

Construction Funds

The extension and improvement of the power system of FIIP should proceed as a part of long-range planning and from work plans developed to implement

short-term and the long-term planning. Funds for such construction should be developed from budgets established in coordination with electric rate schedules based on the plans. Such a process will not require a reserve if the planning is keeping abreast of the growth needs.

Therefore, no recommendation is being included in this report for a reserve fund for extension and improvement of the power system.

In conclusion, the funds on hand are being maintained at a higher than necessary level, and without any identification of a planned need as commitment for such funds.

Recommendation

It is recommended that the level of funds on hand be coordinated with other operations and requirements of the 1948 Act.

It is recommended that a cash working allowance be included in the Power Division budget in an amount equal to one-eighth of the operation and maintenance expenses for the year.

It is recommended that the Emergency Reserve be increased to $1,000,000 by transferring to it from net power revenues an amount of $330,000 a year for each of three years, and that release of funds from such reserve in an emergency be shifted to the Area Director (now is at Central Office Control), and that reserve be authorized to bear interest payable to FIIP.

Table 8-1

FLATHEAD INDIAN IRRIGATION PROJECT

End-of-Year Trial Balances
for Cash and Budgetary Accounts of Power Division

Balance as of Dec. 31	1 Central Office Fund Control (Power Reserve Only) Account 130	2 Project Funds with Funding Officer Account 131	3 Repayment to Project Refunds Account 136.1	4 Travel Advances Account 139.1	5 Estimated Receipts Account 150.1	6 Total	7 Unallotted Funds Account 200.1	8 Unobligated Allotment Account 200.2	9 Undelivered Orders Account 200.3	10 Accounts Payable Account 222	11 Total
1957	$75,000.00	$282,811.91	$ 57.37		$422,927.45	$780,796.73	$222,761.13	$262,836.46	$287,534.92	$7,664.22	$780,796.73
1958	75,000.00	297,811.93	429.46		409,826.79	783,068.18	204,595.67	291,499.36	277,268.22	9,704.93	783,068.18
1959	75,000.00	364,352.83	478.51		427,874.86	867,706.20	281,766.68	293,741.11	281,828.76	10,369.65	867,706.20
1960	75,000.00	425,367.99	1,244.06		492,614.79	994,226.84	342,253.13	573,915.84	50,780.78	27,277.09	994,226.84
1961	75,000.00	478,368.75	182.11		529,287.82	1,082,838.68	386,902.73	607,323.33	75,933.05	12,679.57	1,082,838.68
1962	75,000.00	467,584.18	133.52		682,931.36	1,225,649.06	605,121.54	539,836.64	61,828.85	18,862.03	1,225,649.06
1963	75,000.00	418,135.31	1,112.80	59.00	678,086.48	1,172,393.59	304,366.42	507,199.33	337,669.88	23,157.96	1,172,393.59
1964	10,000.00	465,772.29	137.52	2,921.30	747,530.21	1,226,361.32	236,718.78	848,239.97	112,653.83	28,748.74	1,226,361.32
1965	10,000.00	447,226.24	82.39		690,602.03	1,147,910.66	238,104.14	508,836.02	381,409.86	19,560.64	1,147,910.66
1966	10,000.00	587,183.45	388.23		659,314.37	1,256,886.05	267,514.75	542,628.06	439,426.38	7,316.86	1,256,886.05
1967	10,000.00	635,859.27	123.13		671,228.08	1,317,210.48	370,088.09	848,640.10	93,009.44	5,472.85	1,317,210.48
1968	10,000.00	569,036.00			868,233.94	1,447,269.94	423,373.37	925,942.07	88,290.49	9,664.01	1,447,269.94
1969	10,000.00	794,786.74			616,436.13	1,421,222.87	324,366.37	664,290.54	429,824.16	2,741.80	1,421,222.87
1970	10,000.00	935,936.59			800,313.40	1,746,249.99	849,549.29	764,403.38	126,322.85	5,974.47	1,746,249.99
1971	10,000.00	1,225,033.11			809,520.44	2,044,553.55	899,742.55	670,399.67	459,186.50	15,224.83	2,044,553.55
1972	10,000.00	1,401,906.83			1,061,564.13	2,473,470.96	1,051,192.43	1,122,343.04	296,633.89	3,301.60	2,473,470.96
1973	10,000.00	1,574,434.68			779,075.40	2,363,510.08	866,538.66	889,233.45	603,276.04	4,461.93	2,363,510.08
1974	10,000.00	1,357,873.27		1,706.08	1,075,469.38	2,445,048.73	907,902.45	1,009,136.70	492,709.99	35,299.59	2,445,048.73
1975	10,000.00	1,407,096.04			1,381,312.27	2,798,408.31	748,521.08	1,666,940.03	371,031.32	11,915.88	2,798,408.31
1976	10,000.00	1,863,233.75			2,025,978.56	3,899,212.31	1,002,505.29	1,941,161.68	931,366.64	24,178.70	3,899,212.31
1977	10,000.00	2,500,095.69			1,725,398.44	4,235,494.13	913,494.13	2,341,549.25	887,070.06	93,380.69	4,235,494.13
1978	10,000.00	2,914,565.74			1,946,923.03	4,871,488.77	2,354,058.84	2,079,679.72	417,428.29	20,321.92	4,871,488.77
1979	10,000.00	3,573,735.24			2,893,892.06	6,477,627.30	3,381,659.01	2,171,940.32	903,619.96	20,408.01	6,477,627.30
1980	10,000.00	3,602,954.39			2,914,043.12	6,526,997.51	6,083,206.95	(774,880.99)	1,182,861.21	35,810.34	6,526,997.51
1981	10,000.00	2,574,993.90			(924,534.87)	1,660,459.03	2,105,354.60	(949,141.39)	478,571.38	25,674.44	1,660,459.03
1982	10,000.00	1,534,548.55			4,415,672.66	5,960,221.21	6,070,318.59	(1,332,271.57)	1,196,474.78	25,699.41	5,960,221.21
1983	10,000.00	769,521.83			4,411,649.34	5,191,171.17	5,992,443.84	(1,583,298.61)	734,906.31	47,119.63	5,191,171.17
1984	10,000.00	2,064,939.51		218.00	5,811,890.25	7,887,047.76	8,809,999.39	(1,807,884.63)	860,301.02	24,631.98	7,887,047.76

Data from F.I.I.P. not available before 1957

Table 8-2
FLATHEAD INDIAN IRRIGATION PROJECT

End-of-Year Trial Balances
Deposit Fund Accounts of Power Division

Year	1 Deposit Funds Account 134	2 Total Deposit Fund Accounts	3 Liabilities for Deposit Fund Customer Deposits Account 224.1	4 Liabilities for Deposit Fund Other Unapplied Account 224.3	5 Total Deposit Fund Accounts
1957	$27,451.34	$27,451.34	$27,059.98	$ 391.36	$27,451.34
1958	33,721.20	33,721.20	29,968.50	3,752.70	33,721.20
1959	52,113.01	52,113.01	33,183.64	18,929.37	52,113.01
1960	53,474.91	53,474.91	34,729.04	18,745.87	53,474.91
1961	61,929.47	61,929.47	36,107.46	25,822.01	61,929.47
1962	41,062.41	41,062.41	38,300.96	2,761.45	41,062.41
1963	44,680.00	44,680.00	40,667.84	4,012.16	44,680.00
1964	49,058.06	49,058.06	44,371.05	4,687.01	49,058.06
1965	47,474.19	47,474.19	47,024.69	449.50	47,474.19
1966	59,698.69	59,698.69	53,428.41	6,270.28	59,698.69
1967	65,233.16	65,233.16	55,898.66	9,334.50	65,233.16
1968	107,604.88	107,604.88	57,290.34	50,314.54	107,604.88
1969	110,324.34	110,324.34	60,607.64	49,716.70	110,324.34
1970	89,957.46	89,957.46	65,739.39	24,218.07	89,957.46
1971	103,203.04	103,203.04	74,601.47	28,601.57	103,203.04
1972	110,181.39	110,181.39	84,290.21	25,891.18	110,181.39
1973	157,475.86	157,475.86	94,182.74	63,293.12	157,475.86
1974	168,688.05	168,688.05	107,780.52	60,907.53	168,688.05
1975	182,295.43	182,295.43	114,572.85	67,722.58	182,295.43
1976	160,119.95	160,119.95	115,739.80	44,380.15	160,119.95
1977	222,215.39	222,215.39	136,352.12	85,863.27	222,215.39
1978	259,706.42	259,706.42	158,921.47	100,784.95	259,706.42
1979	297,336.10	297,336.10	184,392.53	112,943.57	297,336.10
1980	282,311.74	282,311.74	197,056.66	85,255.08	282,311.74
1981	325,487.15	325,487.15	212,895.07	112,592.08	325,487.15
1982	364,795.19	364,795.19	229,203.64	135,591.55	364,795.19
1983	409,892.27	409,892.27	254,718.16	155,174.11	409,892.27
1984	479,655.52	479,655.52	268,844.85	210,810.67	479,655.52

Table 8-3

FLATHEAD INDIAN IRRIGATION PROJECT

Analysis of Power Division Year-End Cash Balance (Account 131)
Compared to Gross Revenue

Calendar Year	1 Power Division Gross Revenues	2 Power Division Project Funds End-of-Year Balance (Account 131)	3 Percent Year-End Fund Balance to Gross Revenues
1957	$748,698	$282,812	38%
1958	764,949	297,812	39%
1959	810,133	364,353	45%
1960	894,094	425,368	48%
1961	964,348	478,369	50%
1962	1,030,443	467,584	45%
1963	1,112,250	418,135	38%
1964	1,172,571	465,772	40%
1965	1,225,837	447,226	36%
1966	1,297,069	587,183	45%
1967	1,302,763	635,859	49%
1968	1,284,485	569,036	44%
1969	1,429,244	794,787	56%
1970	1,445,771	935,937	65%
1971	1,604,919	1,225,033	76%
1972	1,763,537	1,401,907	79%
1973	1,865,287	1,574,435	84%
1974	1,940,769	1,357,873	70%
1975	2,154,922	1,407,096	65%
1976	2,732,544	1,863,234	68%
1977	3,059,657	2,500,096	82%
1978	3,318,703	2,914,566	88%
1979	3,733,556	3,573,735	96%
1980	3,658,165	3,602,954	98%
1981	3,720,671	2,574,994	69%
1982	4,376,295	1,534,549	35%
1983	6,232,740	769,522	12%
1984	8,732,852	2,064,940	24%
		Weighted Average	55%

Table 8-4

FLATHEAD INDIAN IRRIGATION PROJECT

Analysis of Power Division Obligated Funds at Year-End
Compared to Project Power Division Funds at Year-End

Calendar Year	1 Power Division Project Cash Funds Year-End Balance (Account 131)	2 Power Division Obligated Funds at Year-End: Undelivered Orders Account 200.3	3 Power Division Obligated Funds at Year-End: Accounts Payable Account 222	4 Power Division Obligated Funds at Year-End: Total Obligated Funds (2+3)	5 Excess of Power Division Project Funds over Obligated Funds at Year-End (1-4)
1957	$282,812	$287,535	$ 7,664	$295,199	$(12,387)
1958	297,812	277,268	9,705	286,973	10,839
1959	364,353	281,829	10,370	292,199	72,154
1960	425,368	50,781	27,277	78,058	347,310
1961	478,369	75,933	12,680	88,613	389,756
1962	467,584	61,829	18,862	80,691	386,893
1963	418,135	337,670	23,158	360,828	57,307
1964	465,772	112,654	28,749	141,403	324,369
1965	447,226	381,410	19,561	400,971	46,255
1966	587,183	439,426	7,317	446,743	140,440
1967	635,859	93,009	5,473	98,482	537,377
1968	569,036	88,290	9,664	97,954	471,082
1969	794,787	429,824	2,742	432,566	362,221
1970	935,937	126,323	5,974	132,297	803,640
1971	1,225,033	459,186	15,225	474,411	750,622
1972	1,401,907	296,634	3,302	299,936	1,101,971
1973	1,574,435	603,276	4,462	607,738	966,697
1974	1,357,873	492,710	25,300	518,010	839,863
1975	1,407,096	371,031	11,916	382,947	1,024,149
1976	1,863,234	931,367	24,179	955,546	907,688
1977	2,500,096	887,070	93,381	980,451	1,519,645
1978	2,914,566	417,428	20,322	437,750	2,476,816
1979	3,573,735	903,620	20,408	924,028	2,649,707
1980	3,602,954	1,182,861	35,810	1,218,671	2,384,283
1981	2,574,994	478,571	25,674	504,245	2,070,749
1982	1,534,549	1,196,475	25,699	1,222,174	312,375
1983	769,522	734,906	47,120	782,026	(12,504)
1984	2,064,940	860,301	24,632	884,933	1,180,007

Note: The above figures do not include Deposit Funds on hand (such as Customer Deposits) or Emergency Reserve (Account 130).

Chapter 9

EXTENSION AND IMPROVEMENT OF THE POWER SYSTEM

Construction of power system components has been implemented and accounted for in three different financial accounts of the Power Division of the FIIP.

Construction of a transmission and distribution system to bring power from the vicinity of Kerr Dam to serve FIIP began in 1929 and 1930 using the unexpended balance of the funds previously appropriated by Congress for continuing construction of the uncompleted Newell project. Additions, extensions and improvements of the electric system have continued from that time to the present as the number of customers has continued to increase.

As some of the earlier parts of the system have aged, there is a significant need for replacement and rehabilitation of portions of the existing plant. Work orders for this type of construction are charged to Project Account R-700, signifying an Operation and Maintenance expenditure for replacement construction. Amounts expended for such work are presented in Table No. 7-2 in Chapter 7.

The Power Division of FIIP is operating an electric utility which in 1985 has approximately 14,000 customers. In recent years the number of customers has been increasing at a rate of about 2.5 percent per year. This, of course, requires construction of additional lines to extend and improve the power system, which now includes about 1500 miles of electric lines and about 30,000 poles.

Funds for the extension and improvement of the power system have come from two sources, 1) general federal appropriations and 2) electric operating revenues of the power system.

Construction from Federal Appropriations (Account 204)

The funds received by the project from general federal appropriations for power system construction were described in Chapter 5 of this report. From 1955 to 1985 a total of $3,988,571.63 had been received through BIA Advice of Allotments for the power system construction. Starting in 1981 it is understood that the Office of Management and Budget (OMB) advised that no additional funds for construction would be approved from general federal appropriations, inasmuch as this electric utility type of organization should be self-sustaining.

The total federal funds expended for the power system prior to the Act of May 25, 1948, and considered to be reimbursable as of that date were $941,793.79. A credit of $36,509.79 from net power revenues accumulated at the time of the Act was allocated to this account. The combined total expended from federal funds appropriated, less the credit, as shown in Account 024, to 1985 is $5,503,481.31 as shown in Column 2 of Table 9-1.

The Account Number 024 signifies in the FIIP accounting system that the funds are reimbursable to the United States. The calculation of amounts to be paid as maturing installments of repayment, as provided in the 1948 Act and in the repayment contracts, includes an amount to pay off that year's expenditure over a

period in the future of not to exceed 25 years. The repayment up to and including the 36th installment whose due date was January 1, 1985, has been $3,226,196.31, leaving a present unpaid balance for the power system of $2,277,285.00.

Construction from Electric Operating Revenues (Account 470)

The rest of the construction for extension and improvements of the power system has been funded from the use of some of the gross revenues of FIIP, almost entirely from the sales of electric power to its electric customers. In the period from 1948 to the present, funds have been provided from power revenues in every year for this purpose and have totaled in that period $3,928,978.49. These are listed by years in Column 1 of Table 9-1.

A review of the accounting records reflects the changes in viewpoint which have occurred as to whether these funds are or are not reimbursable. Some of the language of the Act of August 7, 1946 (60 Stat. 895) and the Act of May 25 ,1948 (62 Stat. 269) is not clear and consistent on this point. Also, the Act of December 23, 1981 (95 Stat. 1404) relates in part to this matter.

The accounting records indicate that for about the first seven years after the 1948 Act was passed, the construction funds now identified as Account 470 funds, coming from project electric revenues, were considered reimbursable and the maturing installments were computed in amounts to make repayment for each successive year's expenditure in the next following 25 years. After 1955 a change was made in the accounting procedure in which the Account 470 funds were entered

and processed in the calculation of maturing installments as being non-reimbursable and the account balances were adjusted to reflect the change. This continued until 1983 and 1984, at which time the accounting procedure for calculating the maturing installments was amended to make more direct the procedure, which recognized the Account 470 as being non-reimbursable. This change is illustrated in Table No. 9-2.

This subject has been discussed in some detail with the Office of the Solicitor in Portland. It is their conclusion that the Account 470 funds are non-reimbursable, which is discussed in the report by the Office of the Solicitor in the Legal Section of the reports for this study of FIIP.

A review of the BIA Manual, covering Budget and Finance, in Volume IV, Part II, 42 IAM 5.1.4B, explained in part the accounting procedure for the different accounts for construction of the power system, as follows:

Chapter 5, Accounts, B.(2):

> "Chart of Accounts for Irrigation and Power Activities. This chart of accounts is provided to account for the funds, other assets, and liabilities of irrigation and power projects. Accounting for the assets and operations of irrigation and power activities is so different from that related to assets and operations of the Government that a separate group of accounts is desirable. Where these activities are financed from other than irrigation and power revenues, i.e., general or trust fund appropriations, the budgetary transactions and balances are recorded and reflected in charts of accounts maintained for the financing appropriations while the results of expenditures from such funds are reflected in the chart of accounts for irrigation and power through the use of reciprocal accounts designed to indicate whether the expenditures are reimbursable or non-reimbursable. Each project is considered as an accounting entity, since each has its own repayment obligations and any unpaid assessments for operation and maintenance charges become a lien on the property benefited by the construction. Proceeds from one project cannot be used to apply against the charges of another project, except where authorized by law." (Emphasis added)

If it is realized that the Account 470 funds are a part of the gross revenues paid in by the electric ratepayers of FIIP, it is logical that such funds be considered non-reimbursable. If the funds paid in by the electric ratepayers were expended for construction of the power system, or for additions, extension, and improvements, and then were to be repaid by funds again coming from the electric ratepayers of FIIP, the net effect would be that the electric ratepayers would pay twice for the same facilities.

It is recommended that the funds from project gross power revenues used for additions, extensions and improvements of the power system continue to be considered and processed as non-reimbursable.

If the occasion were to arise where additions or improvements were needed for the power system in excess of the amount which might be raised quickly from rates levied on electric customers, it is suggested that authority might be requested from Congress to allow FIIP to obtain funding on the same basis as the Bonneville Power Administration, namely to borrow from the U.S. Treasury at specified interest rates, the amounts to be repaid within time periods not to exceed the life of the facility to be constructed.

Table 9-1

FLATHEAD INDIAN IRRIGATION PROJECT

Capital Expenditures of Power Division
for Additions to Power System
from Gross Operating Revenues and from Federal Appropriations
(by Years)

Year	1 From Project Gross Electric Operating Revenues (Account 470) See Note 2	2 From Federal Appropriations Advice of Allotments (Account 024) See Note 3	3 Total
Prior to 5-26-48		$941,793.79	$941,793.79(1)
		<36,509.79>	< 36,509.79>
5-26-48 to 12-31-49	$106,364.27	339,518.24	445,882.51
1950	66,018.51	139,022.30	205,040.81
1951	49,766.45	105,999.05	155,765.50
1952	65,060.41	28,252.04	93,312.45
1953	117,559.46	33,450.48	151,009.94
1954	91,836.09	46,745.88	138,581.97
1955	73,523.72	56,150.43	129,674.15
1956	61,370.54	14,878.91	76,249.45
1957	97,586.82	31,393.37	128,980.19
1958	71,000.36	73,660.69	144,661.05
1959	75,767.97	35,376.55	111,144.52
1960	81,505.09	57,259.44	138,764.53
1961	57,816.06	88,426.00	146,242.06
1962	79,154.70	107,602.83	186,757.53
1963	76,306.60	4,935.21	81,241.81
1964	82,990.24	1,500.00	84,490.24
1965	83,909.44	6,875.15	90,784.59
1966	65,248.32	309,640.56	374,888.88
1967	74,569.15	364,424.53	438,993.68
1968	91,749.22	95,496.33	187,245.55
1969	63,228.38	275,115.99	338,344.37
1970	94,534.70	245,618.09	340,152.79
1971	55,373.37	227,141.90	282,515.27
1972	42,816.83	144,606.03	187,422.86
1973	77,711.18	37,838.15	115,549.33
1974	76,486.41	34,399.93	110,886.34

Table 9-1

Year	1 From Project Gross Electric Operating Revenues (Account 470) See Note 1	2 From Federal Appropriations Advice of Allotments (Account 024) See Note 2	3 Total
1975	75,668.36	361,523.99	437,192.35
1976	68,076.94	108,592.86	176,669.80
1977	70,459.21	232,032.22	302,491.43
1978	59,127.96	314,782.33	373,910.29
1979	97,659.28	178,472.62	276,131.90
1980	63,513.41	295,421.06	358,934.47
1981	131,729.05	132,981.25	264,710.30
1982	426,401.66	56,983.20	483,384.86
1983	486,990.29	12,079.70	499,069.99
1984	470,098.04	-0-	470,098.04
	3,928,978.49	5,503,481.31	9,432,459.80

Data from Accounting Files of Project

Note (1) Exclusive of costs repaid through credits from the revenues of the power system prior to that date.

(2) Account 470 Expenditures are for new additions and extensions of power system, paid for from gross electric power revenues. These amounts are not being reimbursed through maturing power installments, because they have been paid for direct from gross electric operating revenues.

(3) Account 024 Expenditures are for new additions and extension of the power system paid for from federal appropriations received by BIA Advice of Allotments. Expenditures are added to amount reimbursable thru current maturing installments.

Table 9-2

FLATHEAD INDIAN IRRIGATION DISTRICT

Illustration of Method used to Account for Construction Costs of Account 470 in Computing the Maturing Power Installments

Installment No.	Due Date	Power Construction Costs Increment in Previous Year			Increment to Power Maturing Installment due to Previous Year	Power Gross Maturing Installment	Power System Construction Cost Deducted (Account 470)	Power Net Maturing Installment	Amount Paid for Installment
		Account 470	Account 024	Total					
		Example using	years 1980 to	1985					
31st	1-1-1980	97,659	178,473	276,132	12,132	240,740	97,659	143,081	143,081
32nd	1-1-1981	63,513	295,421	358,934	22,934	263,674	63,513	200,161	200,161
33rd	1-1-1982	131,729	132,990	264,699	12,699	269,307	131,729	137,578	137,578
34th	1-1-1983	426,402	56,994	483,396	20,196	287,304	426,402	negative	287,304
35th	1-1-1984	486,990	12,080	499,070	20,030	277,710	486,90p	negative	277,710
35th (Revised)		486,990	12,080	499,070	560	221,019	-0-	221,019	221,019
36th	1-1-1985	470,098	-0-	470,098	-0-	216,493	-0-	216,493	216,493

Chapter 10

NET POWER REVENUES

The "net power revenues" from the power system of the Flathead Indian Irrigation Project are designated as the source of funds for the repayment to the United States of the reimbursable funds expended for the construction of the irrigation and power systems of the project and for other purposes referred to in the Act of May 25, 1948 (62 Stat. 269).

Subsection 2(b) of the 1948 Act prescribes how the net revenues will be determined as follows:

> "(b) The net revenues heretofore and hereafter accumulated from the power system shall be determined by deducting from the gross revenues the expenses of operating and maintaining the power system, and the funds necessary to provide for the creation and maintenance of appropriate reserves in accordance with section 3 of the Act of August 7, 1946 (60 Stat. 895; 31 U.S.C., sec. 725s-3)."

The reference to Section 3 of the Act of August 7, 1946 (60 Stat. 89) regarding the purposes and reserves for which the revenues may be used reads as follows:

> "Sec. 3. Revenues hereafter collected from power operations on each Indian irrigation project and deposited into the Treasury.....are hereby authorized to be appropriated annually, in specific amounts, equal to the collections so credited, for the following purposes in connection with the respective projects from which such revenues are derived: (1) Payment of the expenses of operating and maintaining the power system; (2) creation and maintenance of reserve funds to be available for making repairs and replacements to, defraying emergency expenses for, and insuring continuous operation of the power system, the fund for each project to be maintained at such level, within limits set by the Director of the Bureau of Budget, as may from time to time be prescribed by the Secretary of the Interior; (3) amortization, in accordance with the repayment provisions of the applicable statutes or contracts, of construction costs allocated to be returned from power revenues; and (4)

> payment of other expenses and obligations chargeable to power revenues to the extent required or permitted by law."

Also, the more recent Act of December 23, 1981 (95 Stat. 1404) in its Section 112 sets forth the amount from gross power revenues which may be used each year for extensions and improvements to the power system, as follows:

> "Sec. 112. Notwithstanding the provisions of section 6 of the Act of May 25, 1948 (62 Stat. 269, 273), appropriations of power revenues of the Flathead Irrigation Project on the Flathead Reservation, Montana, made pursuant to section 3 of the Act of August 7, 1946 (60 Stat. 895), shall hereafter be available in an amount not exceeding 20 percent of the gross power revenues of said project for the preceding fiscal year, or $750,000 whichever is greater, for improvements and extensions to the power system...."

The net power revenues of the FIIP are set forth on Table No. 10-1 at the end of this chapter, as they are considered to have been from 1956 through 1984. Accounting records were not available at FIIP headquarters for the operation and maintenance expenses prior to the middle of 1955 so no earlier totals are shown. Elsewhere in the project records a tabulation of the net power revenues in earlier years was found, which was used in later tabulations to supplement the information on Table No. 10-1. Although figures were not available as to how the calculation of the net revenues was derived, the figures appear to correlate with other known data.

There is no column on Table 10-1 for an amount specifically identified for an emergency reserve as provided in the 1946 Act because no amount has been separately allocated to that purpose in the accounts of FIIP over and above the amount of $75,000 in Account 130, which was drawn down to $10,000 in 1984 and which has continued at $10,000 since 1964 without being used or replenished.

In the latter part of the 1950's the net power revenues from the power system averaged about $210,000 per year. In the decade of the 1960's the average increased to about $292,000 per year. By the end of the 1970's the net power revenues increased to over $1,000,000 per year.

The years of the 1980's to date have each been quite different as to the net power revenues produced by the power system. The greatly differing net power revenues in each year have been in great part because the drastic increases in rates by Bonneville Power Administration have been out of synchronism with the rate changes which were necessitated for the FIIP to pay for its increasing amounts of power being purchased from Bonneville. This will be discussed further in a subsequent chapter.

In 1984 the net power revenue was $2,004,398.

Table 10-1

FLATHEAD INDIAN IRRIGATION PROJECT
Calculation of Net Revenues of Power System

Year	1 Power System Gross Revenue	2 Power System Operation and Maintenance	3 Power System Extensions and Improvements Charged to Account 470	4 Net Revenues of Power System (1-2-3)
1955	$684,324			
1956	718,556	$446,931	$61,371	$210,254
1957	748,698	487,908	97,587	163,203
1958	764,949	472,761	71,000	221,188
1959	810,133	489,242	75,768	245,123
1960	894,094	528,773	81,505	283,816
1961	964,348	601,077	57,816	305,455
1962	1,030,443	656,381	79,155	294,907
1963	1,112,250	878,710	76,307	157,233
1964	1,172,572	855,431	82,990	234,151
1965	1,225,837	928,294	83,909	213,634
1966	1,297,069	839,515	65,248	392,306
1967	1,302,763	884,993	74,569	343,201
1968	1,284,485	950,445	91,749	242,291
1969	1,429,244	909,806	63,228	456,210
1970	1,445,771	890,186	94,535	461,050
1971	1,604,919	946,695	55,373	602,851
1972	1,763,537	1,066,548	42,817	654,172
1973	1,865,287	1,238,324	77,711	549,252
1974	1,940,769	1,674,474	76,486	189,809
1975	2,154,922	1,623,283	75,668	455,971
1976	2,732,544	1,496,642	68,077	1,167,825
1977	3,059,657	1,934,270	70,459	1,054,928
1978	3,318,703	2,323,299	59,128	936,276
1979	3,733,556	2,524,101	97,659	1,111,796
1980	3,658,165	3,306,904	63,513	287,748
1981	3,720,671	4,181,107	131,729	(592,165)
1982	4,376,295	4,240,529	426,402	(290,636)
1983	6,232,740	5,674,096	486,990	71,654
1984	8,732,852	6,258,356	470,098	2,004,398

Notes: Data assembled from Accounting files of Project; some files not available before 1956.

Net revenues are determined by deducting from the gross revenues, the expenses of operating and maintaining the power system, and the funds necessary to provide for appropriate reserves, and for improvements and extensions to the power system.

Chapter 11

REPAYMENT OF PROJECT OBLIGATIONS

The opening section of the Act of May 25, 1948 (62 Stat. 269) by Congress states:

> "Be it enacted.....that the repayment to the United States of all reimbursable costs heretofore or hereafter incurred for the construction of the irrigation and power systems of the Flathead Indian irrigation project in Montana (hereinafter called the project).....shall be accomplished as prescribed by this Act....."

Allocation of Costs

Section 2(a) of the 1948 Act provides that:

> "(a) All costs heretofore or hereafter incurred for the construction of the irrigation system shall be allocated to the Mission Valley, Camas, and Jocko divisions of the project in proportion to the amount of such costs incurred for the respective benefit of each of these divisions."

The allocation of costs to the several divisions of agricultural area for the construction of the irrigation system were not investigated by this study of the Power Division. However, we did invterview the Irrigation Clerk to clarify how the amounts were calculated each year for a portion of the net power revenues to be applied as a credit against the irrigation operation and maintenance costs billed to Indian-owned land. Also, the interview included an inquiry into the procedure used for calculating the amount to be paid to the United States as the annual maturing installment of the reimbursable irrigation system construction costs. These were considered in preparing the recommendation hereinafter for a change in the procedure.

Excess Camas Costs

The provision of Section 2(c) of the 1948 Act relates to repayment of the excess cost per acre of construction of the irrigation system of the Camas division, as follows:

> "(c) The deferred obligation established by the Act of May 10, 1926 (44 Stat. 453, 404-406), for repayment of the per acre costs of the Camas division in excess of the per acre costs of the Mission Valley division shall be determined on the basis of the costs heretofore incurred for the construction of those divisions, and shall be liquidated from the net revenues heretofore accumulated from the power system." (Emphasis added)

The records indicate that the excess net power revenues of FIIP accumulated as of May 25, 1948, were $971,388.79. The excess cost of the Camas division was repaid in the amount of $598,839.90 from the net power revenues then on hand. Therefore, the provisions of this Section 2(c) have been completed.

Reduction of Irrigation and Power Reimbursables

The provisions of Section 2(d) of the 1948 Act relate to use of the remainder of the then accumulated net power revenues to repay and thus reduce the amounts of remaining reimbursable costs of the irrigation and power systems. Section 2(d) of the 1948 Act follows:

> "(d) The remainder of the net revenues heretofore accumulated from the power system shall be applied to reduce the reimbursable costs heretofore incurred for the construction of the power system, and the reimbursable costs heretofore incurred for the construction of the irrigation system (exclusive of the deferred obligation for the excess costs of the Camas Division) as allocated among the several divisions pursuant to subsection (a) of this section, in proportion to the respective amounts of each of the foregoing categories of costs." (Emphasis added)

The records indicate that the remaining net revenues in the amount of $372,548.89 were applied, in proportion to the respective costs, to repay $336,039.10 of the reimbursable irrigation costs and $36,509.79 of the reimbursable power system costs.

Also, this left the balance of net power revenues as of May 26, 1948 at zero. Thus the provisions of Section 2(d) have also been completed.

Schedule of Repayment of Reimbursable Power System Costs

Section 2(f) of the 1948 Act prescribes how the reimbursable costs for construction of the power system shall be scheduled for repayment as follows:

> "(f) The reimbursable costs heretofore incurred for the construction of the power system and not repaid through the credits provided for in subsections (c) and (d) of this subsection, or through other credits from the revenues of the power system, shall be scheduled for repayment in annual installments of approximately equal amount, in a manner which will provide for liquidation of such costs over a period not exceeding the remaining useful life of the power system as a whole, or not exceeding fifty years from January 1, 1950, whichever period is the lesser. The reimbursable costs hereafter incurred for the construction of the power system shall be added to the schedule of repayments established pursuant to this subsection by increasing the amount or the number, or both, of the annual installments maturing after the incurrence of such costs, in a manner which will provide for their liquidation within a period not exceeding the useful life of the works involved, or not exceeding fifty years from the time when the additional costs are incurred, whichever period is lesser. Each annual installment shall be repaid to the United States solely out of the revenues from the power system." (Emphasis added)

Annual payments of approximately equal annual amount are being made to pay off the costs of the power system over a period of twenty-five years from the time the construction costs were incurred. The length of period originally selected for repayment of the power system costs was 25 years. That same length of period is

still being used as the repayment period for the power system reimbursable costs most recently incurred. Instead of just increasing the amounts of the installments so as to be paid off within the first 25 years (which ran out in 1974), an additional installment series is added for each year in which additional reimbursable costs are incurred, which series are added together for the particular year to compute the installment.

Table No. 11-1 entitled "Power System Maturing Installments Paid" sets forth all of the power installments which have been paid from January 1, 1950, to the most recent in 1985. There have been 36 installments paid over the repayment period of 36 years since January 1, 1950, totaling $3,226,196.31, which includes adjustments and corrections as indicated in the record of accounts of FIIP.

The records of FIIP indicate that the payments which have a due date of January 1 of each year are not usually made until several months or even many months later. There do not appear to be obvious reasons for the delays of many months after the due date until payments are made. In some cases it is apparent that the delay was caused by uncertainty as to appropriate figures to use, and in some cases was related to concern about having enough funds on hand to make the payments. A delay in some years may have been caused while calculation was made of the reimbursable costs incurred in the previous year, which must be known to determine the amount of installment to pay due January 1. However, in 1984 and 1985 no reimbursable costs were incurred for construction of the power system,

because no funds were expended from Account 024 (see Chapter 5 and Chapter 9). In such years no delay in payment should be necessary.

The remaining unpaid balance of reimbursable costs owed to the United States for construction of the power system is $2,277,285.00, as shown on Table No. 11-2.

The amount of each successive maturing installment for power costs should decline, inasmuch as the earliest costs and the installments for those costs through 1960 have now been paid off.

However, the series of 36 installment payments which has been made has varied considerably in amount from year to year because of the procedure used to account for the Account 470 funds, as discussed previously. The procedure for calculating the power installments was revised in 1984, and as a result the installment in successive years in the future should not fluctuate greatly as it has in the past, but instead should decline progressively from year to year.

It is recommended that FIIP prepare a schedule in advance for the purpose of budget and project planning as to what the remaining maturing power installments are expected to be.

Schedule of Repayment of Reimbursable Irrigation Costs

Section 2(e) of the 1948 Act provides that the remaining balance of the reimbursable costs of the irrigation system shall be scheduled for repayment as follows:

"(e) The reimbursable costs heretofore incurred for the construction of the irrigation system of each division of the project and not repaid through the credits provided for in subsections (c) and (d) of this subsection shall be scheduled for repayment in annual installments of approximately equal amount, in a manner which will provide for liquidation of such costs over a period of fifty years from January 1, 1950. The reimbursable costs hereafter incurred for the construction of the irrigation system shall be added to the schedule of repayments established pursuant to this subsection by increasing the amount or the number, or both, of the annual installments maturing after the incurrence of such costs, in a manner which will provide for their liquidation within a period not exceeding the useful life of the works involved, or not exceeding fifty years from the time when the additional costs are incurred, which ever period is the lesser. Each annual installment shall be distributed over all irrigable lands within the division on an equal per acre basis, and the costs so charged against any parcel of lands within the division shall constitute a first lien thereon under the Act of May 10, 1926 (44 Stat. 453, 464-466). Upon the maturity or repayment of any annual installment, the amount of the installment shall be reduced by deducting any sums included therein which are chargeable to lands on which the collection of construction costs is then deferred under the Act of July 1, 1932 (47 Stat. 564; 25 U.S.C., sec 386a), or which are chargeable to other lands and have been already repaid to the United States."

A review of the accounting records indicates the amount of the gross installment for repaying the irrigation construction costs has been calculated as allowed in the 1948 Act, using a length of repayment period of 50 years. As additional reimbursable costs have been incurred, the additional gross installment payment has been calculated to enable the additional costs incurred to be repaid over a new period of 50 years beginning from the year when it was incurred. The gross installment to be paid has been enlarged to include the amount for new installment series.

However, adjustments which have been made as a part of calculating the net irrigation installment payment have had a significant effect on the amount actually paid to the United States, which will be discussed below.

Table No. 11-13 entitled "Capital Expenditures by Irrigation Division" sets forth the construction costs of the irrigation system, all of which is considered reimbursable, in the amount of $12,492,893.50.

Deferral of Irrigation Construction Costs on Indian-Owned Land

Section (e) of the 1948 Act quoted above, in its last sentence, also further provides that when an irrigation installment is to be paid, the amount of the installment shall be reduced by the amount of the irrigation construction cost chargeable to Indian-owned land on which the collection of construction costs is then deferred under the Act of July 1, 1932 (47 Stat. 564).

Those construction costs of the irrigation system chargeable to Indian-owned land and which have been deferred from payment are listed on Table No. 11-4. For the 36 irrigation installments which have been paid from January 1, 1950, through the 1985 installment, the total amount deferred from payment as being the irrigation construction costs chargeable to Indian-owned land is $1,010,380.23.

Credits for Prepaid Construction Costs

An additional provision of the 1948 Act at Section 2(e) in its last sentence, as quoted above, is that when an irrigation installment is to be paid, the amount of the installment shall be reduced by the amount of construction costs which is chargeable to other lands which have already been repaid to the United States.

It is understood that this proviso relates to the work performed in the early 1920's because of a construction charge per acre assessed by the Secretary of the Interior, which many landowners paid their share of by doing work such as hauling rock for riprap on some of the dams which had been constructed. Also, some of the landowners installed some of the ditches which the United States later acquired from the landowner.

The proviso in the last sentence of Section 2(e) allows the irrigation installment chargeable to those lands to be reduced by the amount of that prepaid charge.

In that same regard, Section 2(i) of the 1948 Act provides that net power revenues, otherwise going to repay the irrigation construction costs shall, in the case of lands where construction costs were prepaid as described above, be applied to the credit of that land to reduce the Irrigation Operation and Maintenance costs chargeable against those lands.

Section 2(i) of the 1948 Act is as follows:

> "(i) In applying net revenues from the power system to the annual installments of irrigation system construction costs for any division of the project under the preceding subsection, allowance shall be made for any construction costs deferred under the Act of July 1, 1932 (47 Stat. 564; 25 U.S.C., sec. 386a), or already repaid to the United States which have been deducted from such installments under subsection (e) of this section, by distributing the net revenues available for such application over all irrigable lands within the division on an equal per acre basis, and by applying the net revenues distributed to the lands chargeable with the construction costs that have been so deferred or repaid, in amounts proportionate to the deductions made on account of such costs, to any then unpaid or subsequently assessed costs of operating and maintaining the irrigation system which are chargeable against the same lands." (Emphasis added)

The proviso is stated more clearly in Subsection 6(b) of the Repayment Contract as follows:

> "(b).....For the purposes of subsection 2(i) of said Act any allowances made by the Secretary of the Interior on account of individually constructed ditches under the authority of the Act of April 23, 1904 (33 State. 302), as amended and supplemented by the Act of May 18, 1916 (39 Stat. 123, 139-142), or on account of other works or facilities acquired in accordance with law from the holders of lands chargeable with construction costs of the project, shall, to the extent that such allowances have not been discharged through prior credits against operation and maintenance charges, be treated as repayments of construction costs and be made the basis for operation and maintenance credits from the net revenues of the power system in the manner authorized by that subsection." (Emphasis added)

Table No. 11-5 lists the amounts of the credits of net revenues applied to the irrigation Operation and Maintenance charges of owners of Non-Indian land which had prepaid some of the irrigation construction costs. The use of net power revenues for the credit of Non-Indian landowners in that category was worked off by 1969 for a total of $88,785.28

Partial Credits for Irrigation Operation and Maintenance on Indian Land

The use of net power revenues to the credit of Indian landowners to reduce their irrigation Operation and Maintenance charges is understood to be the way which was evolved for them to participate in the benefits of the new power revenues. This is provided for in Section 2(i) of the 1948 Act quoted above in this chapter.

In the case of Indian-owned land where the payment of irrigation construction costs is deferred, the portion of the net revenues that would otherwise be used to pay that portion of the irrigation maturing installment, shall instead be applied to

the credit of the Indian land so as to reduce the irrigation Operation and Maintenance costs otherwise chargeable against that land.

These credits through the 36 installments from January I, 1950, to 1985 are listed on Table 11-6 and total to an amount of $1,010,380.23. This is also equal to the amount of the deferred payment of irrigation construction costs chargeable to Indian-owned land.

Net Repayment for Irrigation System Construction Costs

The net repayment to the United States for the irrigation system construction costs is shown on Table No. 11-7 entitled "Repayment of Irrigation System Construction Costs". The cumulative total amount of the repayment, taking into account credits and adjustments, is $6,950,990.96 up through the 36th installment due January I, 1985.

The remaining balance of unpaid irrigation system construction costs, as shown on Table No. 11-8 entitled "Irrigation Construction Costs Repayments - Maturing Installments - and Remaining Obligation" is $5,547,445.37 up through January I, 1985.

Method of Calculating Net Irrigation Installment

A question was raised by the Inspector General as to the method of calculating the net maturing irrigation installments, with the conclusion that a portion was being deferred from repayment to the extent that the repayment to the United States

would not be completed within 50 years as prescribed in the 1948 Act discussed above.

The Finance Officer of the Portland Area Office of the BIA has reviewed the method of calculation used by FIIP, and recommends that it be modified, and that a substantial portion of the deferred amount of payment be paid from accumulated net power revenues.

This present study of the Power Division by the power consultant also included an analysis of how the irrigation maturing installments were calculated. The figures are shown on Table No. II-9 entitled "Irrigation Division - Analysis of Maturing Installments Paid."

Table No. II-9 indicates that a provision of the repayment contracts is being applied to the procedure for calculating the maximum amount of payment. The provision is from subsection 6(c) at page 15 of the Repayment Contract as follows:

> "(c).....Subject to the limitations contained in subsection 2(c) of said Act, all other construction costs of the irrigation system of the project incurred after the date of the enactment of said Act shall be added to the foregoing schedule of repayments by increasing the amount or the number, or both, of the annual installments as the Secretary of the Interior may prescribe, but no annual installments shall be increased to any amount higher than $162,000 for the Mission Valley division, $15,800 for the Jocko division, and $19,100 for the Camas division, unless the Secretary of the Interior determines that is is necessary to exceed these limits in order to comply with the provisions of said Act....."

The total of the three amounts included in the above quotation is $196,900. In other words, the repayment contract provides that no annual installment for repayment of the construction costs of the irrigation system shall exceed $196,900 unless the Secretary of the Interior determines that it is necessary in order to comply with the provisions of the Act.

Some of the "provisions of the Act" referred to are those in subsection 2(j) of the 1948 Act, as follows:

> "(j) Any matured installment of irrigation system construction costs, or portion thereof, which is not liquidated at or before its maturity through the application thereto of net revenues from the power system under subsection (h) of this section shall be repaid to the United States by an assessment against the lands chargeable with the construction costs included in the installment. Such repayment shall be deferred for any period of time that may be requisite to provide for the assessment and collection of such costs in conformity with the laws of the State of Montana, but shall be completed within two years after the maturity of the installment concerned."

The procedure which has been used is as follows. First, the gross amounts of the irrigation maturing installments were determined, which are the amounts shown in Column 1 of Table No. II-9. The amounts by which the gross irrigation maturing installment for the year exceeds $196,900 is listed in Column 2 to be deferred, leaving a remainder in Column 3, of an amount not to exceed $196,900, which has been called the "net maturing installment". From the net maturing installment, two items were deducted, namely the O&M Credits for Non-Indian prepaid construction allowances in Column r, and Indian Irrigation C&M credits in Column 5. The remainder as shown in Column 6 is the amount which has been actually paid to the U. S. Treasury for repayment of the reimbursable irrigation construction costs.

The sum of the yearly deferrals above $196,900 each year, shown in Column 2, now total $679,663.02, which is the total amount which has been deferred from payment on the irrigation maturing installments as of 1985 (except for the deferral of repayment of construction costs chargeable to Indian-owned land). This deferral of $679,633.02 is equivalent to almost three annual irrigation installments. If this same practice were to continue each year until the end of the 50-year repayment period in 1999, it could then be necessary for the irrigation districts to levy an assessment against the lands chargeable for these irrigation construction costs, which land assessment then would have to be paid within two years, as prescribed in subsection 2(j) of the 1948 Act.

As previously mentioned above, the Finance Officer of the Portland Area Office has recommended that the method of calculation of the maturing installment be modified. The proposed modification is understood to be as set forth in Table No. II-10 entitled "Alternate Method of Applying Maturing Irrigation Installments." In this modification the prepaid construction cost credit and the Indian Irrigation O&M Credit are deducted from the gross maturing installment to determine the net maturing installment, as shown in Columns 1, 2, 3, and 4 of Table No. II-10. Any amount in excess of $196,900 would be deferred with a resulting net payment to the U.S. Treasury as shown in Column 5. The sum of the deferred amounts in the modified method are listed in Column 5 and total $145,948,67 as of 1985. This compares with a deferred amount of $679,663.02 in the present method of calculation as of 1985. In other words, if the recommendation of the Finance

Officer is adopted, a payment of $533,714.35 ($679,633.02 minus $145,948.67) would be made of the irrigation debt presently deferred, equivalent to over 2 years of back payments.

In later chapters of this report we show that there is a present possibility for the net power revenues to be used to prepay what are, as of now, unmatured power and irrigation installments. It has a strong sense of logic that if any payments are to be made in advance of presently unmatured power and irrigation installments, the first payment should be of the amount presently deferred from the matured installments.

It is recommended that if advance payments are made of presently unmatured power and irrigation installments, amounts presently deferred on already matured installments be paid as a part of the payments on priority 2 (for presently matured irrigation installments) as listed in Subsection 2(h) of the 1948 Act, and that the $679,633.02 be paid as the first payment.

The calculation of the amount of deferral in the amount of $679,663.02, which is recommended for payment, is set forth on Table II-11.

Repayment of Unmatured Power Installments

In regard to unmatured power installments as of October 1, 1985, no payment has ever been made in advance of a due date on an unmatured installment for repaying power system construction costs. In other words, no payments have been made by FIIP from net power revenues in advance as a prepayment of an installment.

Repayment of Unmatured Irrigation Installments

In regard to unmatured irrigation installments as of October 1, 1985, no advance payment or prepayment of any unmatured installment for irrigation construction costs has been made by FIIP.

Table 11-1

FLATHEAD INDIAN IRRIGATION PROJECT

Power System

Maturing Installments Paid

Calendar Year	Number of Maturing Power Installment		Cumulative Total of Maturing Power Installments Paid
1950	1st	$ 57,686.51	$ 57,686.51
1951	2nd	62,135.81	119,822.32
1952	3rd	68,340.50	188,162.82
1953	4th	72,069.45	260,232.27
1954	5th	78,106.94	338,339.21
1955	6th	83,718.97	422,058.18
		(396,475.09) (1)	25,583.09
1956	7th	15,347.43	40,930.52
1957	8th	30,500.91	71,431.43
1958	9th	(100,704.73) (2)	(29,273.30)
1959	10th	31,804.69	2,531.39
1960	11th	31,491.55	34,022.94
1961	12th	31,276.44	65,299.38
1962	13th	60,843.00	126,142.38
1963	14th	46,989.83	173,132.21
1964	15th	53,072.21	226,204.42
1965	16th	49,767.00	275,971.42
1966	17th	52,522.15	328,493.57
1967	18th	86,133.56	414,627.13
1968	19th	94,377.53	509,004.66
1969	20th	84,689.33	593,693.99
1970	21st	126,742.99	720,436.98
1971	22nd	109,051.09	829,488.07
1972	23rd	159,524.90	989,012.97
1973	24th	179,489.03	1,168,502.00
1974	25th	149,221.15	1,317,723.15
1975	26th	154,967.93	1,472,691.08
1976	27th	119,071.99	1,591,763.07
1977	28th	133,700.86	1,725,463.93
1978	29th	145,640.22	1,871,104.15
1979	30th	168,390.33	2,039,494.48

Table 11-1

Calendar Year	Number of Maturing Power Installment		Cumulative Total of Maturing Power Installments Paid
1980	31st	143,080.62*	2,182,575.10
1981	32nd	199,029.06*	2,381,604.16
1982	33rd	137,578.28*	2,519,182.44
1983	34th	269,502.17*	2,788,684.61
1984	35th	221,018.70*	3,009,703.31
1985	36th	216,493.00	3,226,196.31

Note: From Project General Ledger 126.4 plus other

(1) Adjustment for payments of Account 470 costs.

(2) Transfer from Power to Irrigation (1-9 Installments)

* Adjustments and corrected entries incorporated into above figures.

Table 11-2

FLATHEAD INDIAN IRRIGATION PROJECT

Status of Repayment Contracts - Power Division[1]

Unmatured Obligation for Power System Construction Costs

Installment No.	Due Date of Installment	Power Maturing Installment Paid (and Adjustments)	Period in which Costs Incurred	Costs Incurred Power System Construction (Account 024)	Balance of Unpaid Power System Costs end-of-year
			thru May 25, 1948	941,793.79	941,793.79
				(36,509.79)[2]	905,284.00
			(5-26-48) (thru 6) (12-31-49)	445,882.51	1,351,166.51
1	1-1-50	57,686.51	1950	205,040.81	1,498,520.81
2	1-1-51	62,135.81	1951	155,765.50	1,592,150.50
3	1-1-52	68,340.50	1952	93,312.45	1,617,122.45
4	1-1-53	72,069.45	1953	151,009.94	1,696,062.94
5	1-1-54	78,106.94	1954	138,581.97	1,756,537.97
6	1-1-55	83,718.97	1955	129,674.15	1,802,493.15
		(396,475.09)[4]		(570,128.91)[3]	1,628,839.33
7	1-1-56	15,347.43	1956	14,878.91	1,628,370.81
8	1-1-57	30,500.91	1957	31,393.37	1,629,263.27
		(100,704.73)[5]	1958	73,660.69*	1,803,628.69
10	1-1-59	31,804.69	1959	35,376.55	1,807,200.55
11	1-1-60	31,491.55	1960	57,259.44	1,832,968.44
12	1-1-61	31,276.44	1961	88,426.00*	1,890,118.00
13	1-1-62	60,843.00	1962	107,602.83	1,936,877.83
14	1-1-63	46,989.83	1963	4,935.21	1,894,823.21
15	1-1-64	53,072.21	1964	1,500.00	1,843,251.00
16	1-1-65	49,767.00	1965	6,875.15	1,800,359.15
17	1-1-66	52,522.15	1966	309,640.56	2,057,477.56
18	1-1-67	86,133.56	1967	364,424.53	2,335,768.53
19	1-1-68	94,377.53	1968	95,496.33	2,336,887.33
20	1-1-69	84,689.33	1969	275,115.99	2,527,313.99
21	1-1-70	126,742.99	1970	245,618.09	2,646,189.09
22	1-1-71	109,051.09	1971	227,141.90	2,764,279.90
23	1-1-72	159,524.90	1972	144,606.03	2,749,361.03
24	1-1-73	179,489.03	1973	37,838.15	2,607,710.15
25	1-1-74	149,221.15	1974	34,399.93	2,492,888.93

Table 11-2

Installment No.	Due Date of Installment	Power Maturing Installment Paid (and Adjustments)	Period in which Costs Incurred	Costs Incurred Power System Construction (Account 024)	Balance of Unpaid Power System Costs end-of-year
26	1-1-75	154,967.93	1975	361,523.99	2,699,444.99
27	1-1-76	119,071.99	1976	108,592.86	2,688,965.86
28	1-1-77	133,700.86	1977	232,032.22	2,787,297.22
29	1-1-78	145,640.22	1978	314,782.33	2,956,439.33
30	1-1-79	168,390.33	1979	178,472.62	2,966,521.62
31	1-1-80	143,080.62*	1980	295,421.06	3,118,862.06
32	1-1-81	199,029.06*	1981	132,981.25*	3,052,814.25
33	1-1-82	137,578.28*	1982	56,983.20*	2,972,219.17
34	1-1-83	269,502.17*	1983	12,079.70	2,714,796.70
35	1-1-84	221,018.70*	1984	-0-	2,493,778.00
36	1-1-85	216,493.00	1985	-0-	2,277,285.00

Notes: (1) Data is consolidated from F.I.P. General Ledger 126.2 "Repayment Contracts - Unmatured - Power".

(2) Credit.

(3) "To reduce account by amount of previous Account 470 costs" (from electric operating revenue).

(4) "Transferred from General Ledger 126.3 for Matured Installments Unpaid for 470 costs".

(5) "To transfer from Power to Irrigation (1-9 Installments)".

* Adjustments and corrected entries incorporated into above figures.

Balance of unpaid Power System Costs does not include the of costs incurred for construction through Account 470.

Table 11-3

FLATHEAD INDIAN IRRIGATION PROJECT

Capital Expenditures by Irrigation Division
(by Years)

Year or Period	Irrigation System Construction Costs	Cumulative Total
Costs to May 25, 1948	$9,226,811.87	$9,226,811.87
Costs 5-26-48 to 12-31-49	43,027.89	9,269,839.76
1950	533,640.47	9,803,480.23
1951	96,267.03	9,899,747.26
1952	67,088.81	9,966,836.07
1953	130,495.66	10,097,331.73
1954	149,673.71	10,247,005.44
1955	281,681.00	10,528,686.44
1956	146,293.66	10,674,980.10
1957	184,712.16*	10,859,692.26
1958	243,118.08	11,102,810.34
1959	123,488.11	11,226,298.45
1960	121,469.39	11,347,767.84
1961	72,348.16	11,420,116.00
	111,246.88(1)	11,531,362.88
1962	39,606.29	11,570,969.17
1963	9,105.31	11,580,074.48
1964	6,850.00	11,586,924.48
1965	37,609.40	11,624,533.88
1966	89,381.15	11,713,915.03
1967	266,395.89	11,980,310.92
1968	70,601.66	12,050,912.58
1969	4,136.32	12,055,048.90
1970	15,056.99	12,070,105.89
1971	13.33	12,070,119.22
1972	-0-	12,070,119.22
1973	-0-	12,070,119.22
1974	-0-	12,070,119.22
1975	10,419.68	12,080,538.90
1976	34,580.32	12,115,119.22
1977	93,816.67	12,208,935.89
1978	90,007.87(2)	12,298,943.76
1979	64,465.12	12,363,408.88

Table 11-3

Year or Period	Irrigation System Construction Costs	Cumulative Total
1980	104,306.55	12,467,715.43
1981	9,566.73	12,477,282.16
1982	-0-	12,477,282.16
1983	-0-	12,477,282.16
1984	15,611.34	12,492,893.50

Data from Project Spread Sheet and General Ledger 126.1

Notes:

* Adjustment - Spread Sheet and General Ledger 126.1

(1) "to complete JV12-6 Dec. 1961 correction"

(2) Correction - see General Ledger 126.2

Table 11-4

FLATHEAD INDIAN IRRIGATION PROJECT

Deferred Irrigation System Construction Costs
Chargeable to Indian Owned Lands

Installment No.	Installment Date at which Payment Deferred	Amounts of Irrigation System Construction Cost on Indian-owned Land Deferred from Payment
1st	1-1-50	$32,586.93
2nd	1-1-51	31,095.55
3rd	1-1-52	31,725.18
4th	1-1-53	30,243.51
5th	1-1-54	29,337.48
6th	1-1-55	34,993.27
7th	1-1-56	31,975.74
8th	1-1-57	61,993.58
9th	1-1-58	36,779.09
10th	1-1-59	35,598.11
11th	1-1-60	31,976.87
12th	1-1-61	31,462.83
13th	1-1-62	30,895.07
14th	1-1-63	29,036.67
15th	1-1-64	29,480.58
16th	1-1-65	29,238.18
17th	1-1-66	29,441.70
18th	1-1-67	29,417.16
19th	1-1-68	28,767.12
20th	1-1-69	24,359.17
21st	1-1-70	23,135.02
22nd	1-1-71	22,599.47
23rd	1-1-72	22,283.28
24th	1-1-73	22,171.43
25th	1-1-74	22,056.12
26th	1-1-75	22,449.36
27th	1-1-76	22,624.74
28th	1-1-77	22,746.92
29th	1-1-78	22,524.03
30th	1-1-79	22,701.46

Table 11-4

Installment No.	Installment Date at which Payment Deferred	Amounts of Irrigation System Construction Cost on Indian-owned Land Deferred from Payment
31st	1-1-80	22,476.42
32nd	1-1-81	22,540.08
33rd	1-1-82	22,401.34
34th	1-1-83	22,556.56
35th	1-1-84	22,279.54
36th	1-1-85	22,430.67
Total		$1,010,380.23

Note: Collection of construction costs is deferred under provisions of Act of July 1, 1932 (47 Stat 564) and Subsection 2(e) of Act of May 25, 1948 (62 Stat. 270)

Table 11-5

FLATHEAD INDIAN IRRIGATION PROJECT

Credits to Non-Indian Irrigation O&M Account
for Prepaid Construction

Maturing Installment	Date	Credit for Non-Indian Irrigaation O&M for Prepaid Construction	Cumulative Credit Total
1st	1-1-50	$46,169.33	$46,169.33
2nd	1-1-51	25,765.76	71,935.09
3rd	1-1-52	9,932.99	81,868.08
4th	1-1-53	2,420.21	84,288.29
5th	1-1-54	966.47	85,254.76
6th	1-1-55	278.51	85,533.27
7th	1-1-56	85.59	85,618.86
8th	1-1-57	735.25	86,354.11
9th	1-1-58	340.14	86,694.25
10th	1-1-59	316.65	87,010.90
11th	1-1-60	888.57	87,899.47
12th	1-1-61	251.56	88,151.03
13th	1-1-62	-0-	88,151.03
14th	1-1-63	146.50	88,297.53
15th	1-1-64	123.75	88,421.28
16th	1-1-65	98.97	88,520.25
17th	1-1-66	134.83	88,655.08
18th	1-1-67	89.10	88,744.18
19th	1-1-68	41.10	88,785.28
20th	1-1-69	-0-	"
21st	1-1-70	-0-	"
22nd	1-1-71	-0-	"
23rd	1-1-72	-0-	"
24th	1-1-73	-0-	"
25th	1-1-74	-0-	"
26th	1-1-75	-0-	"
27th	1-1-76	-0-	"
28th	1-1-77	-0-	"
29th	1-1-78	-0-	"
30th	1-1-79	-0-	"
31st	1-1-80	-0-	"
32nd	1-1-81	-0-	"
33rd	1-1-82	-0-	"
34th	1-1-83	-0-	"
35th	1-1-84	-0-	"
36th	1-1-85	-0-	88,785.28

Data from Spread Sheet, Exhibit B

Table 11-6
FLATHEAD INDIAN IRRIGATION PROJECT

Credits of Net Power Revenues
Applicable to Indian O&M on Indian-Owned Land

Maturing Installment	Date	Credits to Irrigation O&M on Indian-Owned Land	Cumulative Amount of Net Power Revenues Applied as Credit to Irrigation O&M on Indian-Owned Land
1st	1-1-50	$32,586.93	$ 32,586.93
2nd	1-1-51	31,095.55	63,682.48
3rd	1-1-52	31,725.18	95,407.66
4th	1-1-53	30,243.51	125,651.17
5th	1-1-54	29,337.48	154,988.65
6th	1-1-55	34,993.27	189,981.92
7th	1-1-56	31,975.74	221,957.66
8th	1-1-57	61,993.58	283,951.24
9th	1-1-58	36,779.09	320,730.33
10th	1-1-59	35,598.11	356,328.44
11th	1-1-60	31,976.87	388,305.31
12th	1-1-61	31,462.83	419,768.14
13th	1-1-62	30,895.07	450,663.21
14th	1-1-63	29,036.67	479,699.88
15th	1-1-64	29,480.58	509,180.46
16th	1-1-65	29,238.18	538,418.64
17th	1-1-66	29,441.70	567,860.34
18th	1-1-67	29,417.16	597,277.50
19th	1-1-68	28,767.12	626,044.62
20th	1-1-69	24,359.17	650,403.79
21st	1-1-70	23,135.02	673,538.81
22nd	1-1-71	22,599.47	696,138.28
23rd	1-1-72	22,283.28	718,421.56
24th	1-1-73	22,171.43	740,592.99
25th	1-1-74	22,056.12	762,649.11
26th	1-1-75	22,449.36	785,098.47
27th	1-1-76	22,624.74	807,723.21
28th	1-1-77	22,746.92	830,470.13
29th	1-1-78	22,524.03	852,994.16
30th	1-1-79	22,701.46	875,695.62
31st	1-1-80	22,476.42	898,172.04
32nd	1-1-81	22,540.08	920,712.12
33rd	1-1-82	22,401.34	943,113.46
34th	1-1-83	22,556.56	965,670.02
35th	1-1-84	22,279.54	987,949.56
36th	1-1-85	22,430.67	1,010,380.23

Data from General Ledger 153.32 and Spread Sheet Exhibit B

Table 11-7

FLATHEAD INDIAN IRRIGATION PROJECT

Repayment of Irrigation System Construction Costs
by Irrigation Maturing Installments and Other Credits

Irrigation Maturing Installment No.	Installment Due Date	Amount of Repayment on Irrigation System	Cumulative Total of Repayments on Irrigation System
5-26-48		$598,839.90(1)	$ 598,839.90
5-26-48		336,039.10(2)	934,879.00
1st	1-1-50	183,293.81	1,118,172.81
2nd	1-1-51	176,313.40	1,294,486.21
3rd	1-1-52	179,232.96	1,473,719.17
4th	1-1-53	180,496.74	1,654,215.91
5th	1-1-54	183,162.59	1,837,378.50
6th	1-1-55	186,084.64	2,023,463.14
7th	1-1-56	191,774.93	2,215,238.07
8th	1-1-57	194,663.59	2,409,901.66
		100,704.73(3)	2,510,606.39
9th	1-1-58	196,807.34(4)	2,707,413.73
		(410,994.00)(5)	2,296,419.73
10th	1-1-59	160,985.24	2,457,404.97
11th	1-1-60	164,034.56	2,621,439.53
12th	1-1-61	165,185.61	2,786,625.14
13th	1-1-62	166,004.93	2,952,630.07
		25,674.15(6)	2,978,304.22
14th	1-1-63	167,716.83	3,146,021.05
15th	1-1-64	167,295.67	3,313,316.72
16th	1-1-65	167,562.85	3,480,879.57
17th	1-1-66	167,323.47	3,648,203.04
18th	1-1-67	167,393.74	3,815,596.78
		1,882.51(6)	3,817,479.29
19th	1-1-68	168,091.78	3,985,571.07
20th	1-1-69	172,540.83	4,158,111.90
21st	1-1-70	173,764.98	4,331,876.88
22nd	1-1-71	174,300.53	4,506,177.41
23rd	1-1-72	174,616.72	4,680,794.13
		2,455.50(6)	4,683,249.63
24th	1-1-73	174,728.57	4,857,978.20
25th	1-1-74	174,843.88	5,032,822.08

Table 11-7

Irrigation Maturing Installment No.	Installment Due Date	Amount of Repayment on Irrigation System	Cumulative Total of Repayments on Irrigation System
26th	1-1-75	174,450.64	5,207,272.72
27th	1-1-76	174,275.26	5,381,547.98
28th	1-1-77	174,153.08	5,555,701.06
29th	1-1-78	174,375.97	5,730,077.03
30th	1-1-79	174,198.54	5,904,275.57
31st	1-1-80	174,423.58	6,078,699.15
32nd	1-1-81	174,359.92	6,253,059.07
33rd	1-1-82	174,498.66	6,427,557.73
34th	1-1-83	174,343.44	6,601,901.17
35th	1-1-84	174,620.46	6,776,521.63
36th	1-1-85	174,469.33	6,950,990.96

Notes: Data from F.I.I.P. General Ledger 126.2 and Others.

(1) Excess Camas Costs repaid from accumulated net power revenues, May 26, 1948.

(2) Further credit to repay irrigation costs from accumulated net power revenues, May 26, 1948.

(3) Excess of "470" Costs over Power Installments, 1st to 9th.

(4) Gross Less Dist. Excess 1519.75.

(5) To adjust account with loan due U.S., credits applied to Irrigation Installments, 1st to 9th.

(6) Payment by State Highway.

Table 11-8

FLATHEAD INDIAN IRRIGATION PROJECT

Irrigation Construction Cost Repayments
Maturing Installments - and Remaining Obligation

Installment No.	Due Date(1)	Irrigation Maturing Installment Paid (and Adjustments)	Period in which Irrigation Costs Incurred	Costs Incurred for Irrigation System Construction Cost	Balance of Unpaid Irrigation System Construction Costs
			Thru 5-25-48	9,226,811.87	$9,226,811.87
				(598,839.90)(2)	8,627,971.97
				(336,039.10)(3)	8,291,932.87
			5-26-48 to 12-31-49	43,027.89	8,334,960.76
1st	1-1-50	183,293.81	1950	533,640.47	8,685,307.42
2nd	1-1-51	176,313.40	1951	96,267.03	8,605,261.05
3rd	1-1-52	179,232.96	1952	67,088.81	8,493,116.90
4th	1-1-53	180,496.74	1953	130,495.66	8,443,115.82
5th	1-1-54	183,162.59	1954	149,673.71	8,409,626.94
6th	1-1-55	186,084.64	1955	281,681.00	8,505,223.30
7th	1-1-56	191,774.93	1956	146,293.66	8,459,742.03
8th	1-1-57	194,663.59	1957	190,254.99(4)	8,455,333.43
		100,704.73(5)			8,354,628.70
9th	1-1-58	196,807.34(6)	1958	243,118.08	8,400,939.44
		(410,994.00)(7)			8,811,933.44
10th	1-1-59	160,985.24	1959	123,488.11	8,774,436.31
11th	1-1-60	164,034.56	1960	121,469.39	8,731,871.14
12th	1-1-61	165,185.61	1961	72,348.16	8,639,033.69
				111,246.88(8)	8,750,280.57
13th	1-1-62	166,004.93	1962	39,606.29	8,623,881.93
		25,674.15(9)			8,598,207.78
14th	1-1-63	167,716.83	1963	9,105.31	8,439,596.26
15th	1-1-64	167,295.67	1964	6,850.00	8,279,150.59
16th	1-1-65	167,562.85	1965	37,609.40	8,149,197.14
17th	1-1-66	167,323.47	1966	89,381.15	8,071,254.82
18th	1-1-67	167,393.74	1967	266,395.89	8,170,256.97
		1,882.51(9)			8,168,374.46
19th	1-1-68	168,091.78	1968	70,601.66	8,070,884.34
20th	1-1-69	172,540.83	1969	4,136.32	7,902,479.83
21st	1-1-70	173,764.98	1970	15,056.99	7,743,771.84
22nd	1-1-71	174,300.53	1971	13.33	7,569,484.64
23rd	1-1-72	174,616.72	1972	-0-	7,394,867.92
		2,455.50(9)			7,392,412.42
24th	1-1-73	174,728.57	1973	-0-	7,217,683.85
25th	1-1-74	174,843.88	1974	-0-	7,042,839.97

Table 11-8

Installment No.	Due Date(1)	Irrigation Maturing Installment Paid (and Adjustments)	Period in which Irrigation Costs Incurred	Costs Incurred for Irrigation System Construction Cost	Balance of Unpaid Irrigation System Construction Costs
26th	1-1-75	174,450.64	1975	10,419.68	6,878,809.01
27th	1-1-76	174,275.26	1976	34,580.32	6,739,114.07
28th	1-1-77	174,153.08	1977	93,816.67	6,658,777.66
29th	1-1-78	174,375.97	1978	90,007.87(10)	6,574,409.56
30th	1-1-79	174,198.54	1979	64,465.12	6,464,676.14
31st	1-1-80	174,423.58	1980	104,306.55	6,394,559.11
32nd	1-1-81	174,359.92	1981	9,566.73	6,229,765.92
33rd	1-1-82	174,498.66	1982	-0-	6,055,267.26
34th	1-1-83	174,343.44	1983	-0-	5,880,923.82
35th	1-1-84	174,620.46	1984	15,611.34	5,721,914.70
36th	1-1-85	174,469.33	1985		5,547,445.37

Notes: Data from F.I.I.P. General Ledger 126.2 and Others.

(1) Due Date is not necessarily date paid, which has many time been considerably delayed.

(2) Excess Camas Costs repaid from accumulated net power revenues, May 26, 1948.

(3) Further credit to repay irrigation costs from accumulated net power revenues, May 26, 1948.

(4) Amount shown in General Ledger 126.2.

(5) Excess of "470" Costs over Power Installments, 1st to 9th.

(6) Gross Less Dist. Excess 1519.75.

(7) To adjust account with loan due U.S., credits applied to Irrigation Installments, 1st to 9th.

(8) To complete Dec. 1961 correction.

(9) Payment by State Highway.

(10) Correction - see General Ledger 126.2.

Table 11-9

FLATHEAD INDIAN IRRIGATION PROJECT

Irrigation Division

Analysis of Maturing Installments Paid

		1	2	3	4	5	6
					Application of Irrigation Installment		
Number of Installment	Due Date of Installment	Gross Maturing Installment for Irrigation Construction Cost	Deferred Construction Cost (above $196,900 maximum)	Net Maturing Installment (1 - 2)	Non-Indian O&M Account Prepaid Construction Credit	Indian Irrig. O&M Cost Credit	Actual Net Payments to Treas. on Irrigation Maturing Installment Construction Acct .023 (3 - 4 - 5)
1st	1-1-50	$183,293.81		$183,293.81	$46,169.33	$32,586.93	$104,537.55 *
2nd	1-1-51	176,313.40		176,313.40	25,765.76	31,095.55	119,452.09 *
3rd	1-1-52	179,232.96		179,232.96	9,932.99	31,725.18	137,574.79 *
4th	1-1-53	180,496.74		180,496.74	2,420.21	30,243.51	147,833.02 *
5th	1-1-54	183,162.59		183,162.59	966.47	29,337.48	152,858.64 *
6th	1-1-55	186,084.64		186,084.64	278.51	34,993.27	150,812.86 *
7th	1-1-56	191,774.93		191,774.93	85.59	31,975.74	159,713.60 *
8th	1-1-57	194,663.59		194,663.59	735.25	61,993.58	131,934.76 *
		91,592.74 (1)		91,592.74 (1)			91,592.74 (1)
9th	1-1-58	198,327.09	1,519.75	196,807.34	340.14	36,779.09	159,688.11
10th	1-1-59	203,147.01	6,247.01	196,900.00	316.65	35,598.11	160,985.24
11th	1-1-60	205,638.04	8,738.04	196,900.00	888.57	31,976.87	164,034.56
12th	1-1-61	208,050.32	11,150.32	196,900.00	251.56	31,462.83	165,185.61
13th	1-1-62	211,798.00	14,898.00	196,900.00	.00	30,895.07	166,004.93
		25,674.15 (2)		25,674.15 (2)			25,674.15 (2)
14th	1-1-63	212,650.22	15,750.22	196,900.00	146.50	29,036.67	167,716.83
15th	1-1-64	212,830.24	15,930.24	196,900.00	123.75	29,480.58	167,295.67
16th	1-1-65	212,911.93	16,011.93	196,900.00	98.97	29,238.18	167,562.85
17th	1-1-66	213,673.33	16,773.33	196,900.00	134.83	29,441.70	167,323.47
18th	1-1-67	215,433.08	18,533.08	196,900.00	89.10	29,417.16	167,393.74
		1,882.51 (2)		1,882.51 (2)			1,882.51 (2)
19th	1-1-68	220,726.82	23,826.82	196,900.00	41.10	28,767.12	168,091.78
20th	1-1-69	222,194.59	25,294.59	196,900.00		24,359.17	172,540.83
21st	1-1-70	222,262.25	25,362.25	196,900.00		23,135.02	173,764.98
22nd	1-1-71	222,583.92	25,683.92	196,900.00		22,599.47	174,300.53
23rd	1-1-72	222,590.26	25,690.26	196,900.00		22,283.28	174,616.72
		2,455.50 (2)		2,455.50 (2)			2,455.50 (2)
24th	1-1-73	222,576.93	25,676.93	196,900.00		22,171.43	174,728.57
25th	1-1-74	222,576.93	25,676.93	196,900.00		22,056.12	174,843.88
26th	1-1-75	222,576.93	25,676.93	196,900.00		22,449.36	174,450.64
27th	1-1-76	223,196.71	26,296.71	196,900.00		22,624.74	174,275.26
28th	1-1-77	224,901.93	28,001.93	196,900.00		22,746.92	174,153.08
29th	1-1-78	229,688.28	32,788.28	196,900.00		22,524.03	174,375.97
30th	1-1-79	230,846.15	33,946.15	196,900.00		22,701.46	174,198.54
31st	1-1-80	233,986.73	37,086.73	196,900.00		22,476.42	174,423.58
32nd	1-1-81	238,578.16	41,678.16	196,900.00		22,540.08	174,359.92
33rd	1-1-82	235,263.34	38,363.34	196,900.00		22,401.34	174,498.66
34th	1-1-83	234,446.61	37,546.61	196,900.00		22,556.56	174,343.44
35th	1-1-84	234,446.61	37,546.61	196,900.00		22,279.54	174,620.46
36th	1-1-85	234,867.95	37,967.95	196,900.00		22,430.67	174,469.33
		$7,789,397.92	$679,663.02	$7,109,734.90	$88,785.28	$1,010,380.23	$6,010,569.39

* Adjusted to deduct credits for prepaid construction and Indian Irrigation O&M ($370,305.35).

(1) Adjusted as per difference in Project 1st and 2nd Spread Sheets ($91,592.74)

(2) Payment by State Highway Dept.

Table 11-10

FLATHEAD INDIAN IRRIGATION PROJECT

Irrigation Division

Alternate Method of Applying Maturing Irrigation Installments

Number of Installment	Due Date of Installment	1 Gross Maturing Installment for Irrigation Construction Cost	2 Non-Indian O&M Account Prepaid Construction Credit	3 Indian Irrig. O&M Cost Credit	4 Net Maturing Installment (1 - 2 - 3)	5 Deferred Construction Cost above $196,900 Maximum	6 Net Payment to Treas. (4 - 5)
1st	1-1-50	$183,293.81	$46,169.33	$32,586.93	$104,537.55 *		104,537.55 *
2nd	1-1-51	176,313.40	25,765.76	31,095.55	119,452.09 *		119,452.09 *
3rd	1-1-52	179,232.96	9,932.99	31,725.18	137,574.79 *		137,574.79 *
4th	1-1-53	180,496.74	2,420.21	30,243.51	147,833.02 *		147,833.02 *
5th	1-1-54	183,162.59	966.47	29,337.48	152,858.64 *		152,858.64 *
6th	1-1-55	186,084.64	278.51	34,993.27	150,812.86 *		150,812.86 *
7th	1-1-56	191,774.93	85.59	31,975.74	159,713.60 *		159,713.60 *
8th	1-1-57	194,663.59	735.25	61,993.58	131,934.76 *		131,934.76 *
		91,592.74 (1)			91,592.74 (1)		91,592.74 (1)
9th	1-1-58	198,327.09	340.14	36,779.09	161,207.86		161,207.86
10th	1-1-59	203,147.01	316.65	35,598.11	167,232.25		167,232.25
11th	1-1-60	205,638.04	888.57	31,976.87	172,772.60		172,772.60
12th	1-1-61	208,050.32	251.56	31,462.83	176,335.93		176,335.93
13th	1-1-62	211,798.00	.00	30,895.07	180,902.93		180,902.93
		25,674.15 (2)			25,674.15 (2)		25,674.15 (2)
14th	1-1-63	212,650.22	146.50	29,036.67	183,467.05		183,467.05
15th	1-1-64	212,830.24	123.75	29,480.58	183,225.91		183,225.91
16th	1-1-65	212,911.93	98.97	29,238.18	183,574.78		183,574.78
17th	1-1-66	213,673.33	134.83	29,441.70	184,096.80		184,096.80
18th	1-1-67	215,433.08	89.10	29,417.16	184,044.31		184,044.31
		1,882.51 (2)			1,882.51 (2)		1,882.51 (2)
19th	1-1-68	220,726.82	41.10	28,767.12	191,918.60		191,918.60
20th	1-1-69	222,194.59		24,359.17	197,835.42	935.42	196,900.00
21st	1-1-70	222,262.25		23,135.02	199,127.23	2,227.90	196,900.00
22nd	1-1-71	222,583.92		22,599.47	199,984.45	3,084.45	196,900.00
23rd	1-1-72	222,590.26		22,283.28	197,851.48	951.48	196,900.00
		2,455.50 (2)			2,455.50 (2)		2,455.50 (2)
24th	1-1-73	222,576.93		22,171.43	200,405.50	3,505.50	196,900.00
25th	1-1-74	222,576.93		22,056.12	200,520.81	3,620.81	196,900.00
26th	1-1-75	222,576.93		22,449.36	200,127.57	3,227.57	196,900.00
27th	1-1-76	223,196.71		22,624.74	200,571.97	3,671.97	196,900.00
28th	1-1-77	224,901.93		22,746.92	202,155.01	5,255.01	196,900.00
29th	1-1-78	229,688.28		22,524.03	207,164.25	10,264.25	196,900.00
30th	1-1-79	230,846.15		22,701.46	208,144.69	11,244.69	196,900.00
31st	1-1-80	233,986.73		22,476.42	211,510.31	14,610.31	196,900.00
32nd	1-1-81	238,578.16		22,540.08	216,038.08	19,138.08	196,900.00
33rd	1-1-82	235,263.34		22,401.34	212,862.00	15,962.00	196,900.00
34th	1-1-83	234,446.61		22,556.56	211,890.05	14,990.05	196,900.00
35th	1-1-84	234,446.61		22,279.54	212,167.07	15,267.07	196,900.00
36th	1-1-85	234,867.95		22,430.67	212,437.28	15,537.28	196,900.00
		$7,789,397.92	$88,785.28	$1,010,380.23	$6,690,232.41	$145,948.67	$6,544,283.74

* Adjusted to deduct credits for prepaid construction and Indian Irrigation O&M ($370,305.35).

(1) Adjusted as per difference in Project 1st and 2nd Spread Sheets ($91,592.74).

(2) Payment by State Highway Dept.

Table 11-11

FLATHEAD INDIAN IRRIGATION PROJECT

Recommended Payment of Deferred Irrigation Construction Costs

to catch up on Amounts currently Deferred
through 36th Matured Irrigation Installment
(of January 1, 1985)

Cumulative Total of Gross Matured Installments of Irrigation Construction Costs (Installment 1 thru Installment 36) (Total charge of which only portion has been paid)		$7,789,397.92
Less amounts applied as credits based on Section (e) Act of May 25, 1948:		
1) Amounts applied from Net Power Revenues as Non-Indian Irrigation O&M Credits for Prepaid Construction Costs	$ 88,785.28	
2) Amounts applied from Net Power Revenues Irrigation O&M Credits on Indian-Owned Lands	$1,010,380.23	
Sub-Total Credits		1,099,165.51
Remaining Net Amount of Irrigation Matured Installments		$6,690,232.41
Cumulative Total Amount Paid to U.S. Treasury through Installment No. 36 of January 1, 1985		$6,010,569.39
Total Amount Currently Deferred from payment for Irrigation Construction Costs through Installment No. 36 of January 1, 1985		$ 679,663.02

Chapter 12

SUMMARY OF THE USE OF NET POWER REVENUES or ANALYSIS OF IMPLEMENTATION OF THE REPAYMENT CONTRACTS

The purpose of this chapter is to summarize the use of the net revenues of the power system of the FIIP from the time of the enactment by Congress of the Act of May 25, 1948, to the present as of 1985.

This in turn will provide an analysis of how the intent of the 1948 Act has been implemented to the present time through FIIP and the Repayment Contracts.

Table 12-1 which is entitled "Analysis of Implementation of Repayment Contracts from Power Revenue" is at the end of this Chapter 12.

It tabulates the gross revenues in Column 1. The cost of Replacement of Existing Plant (Account R-700) is listed in Column 2 and Operation and Maintenance (O&M) Expenses (Account 700) in Column 3 with the total of O&M expenses in Column 4.

The next purpose or function shown is Power System Extension and Improvement (Account 470). Not included in this table are the reimbursable funds expended from general appropriations for construction (Account 024). The only funds shown in this table are those from project electric revenues, and moneys expended therefrom.

The "Net Power Revenues" are shown in Column 6, being Column 1 minus Columns 4 and 5.

Priorities of Application of Net Power Revenues

The Act of May 25, 1948 (62 State. 269), is fairly specific as to the order of priority in which the net revenues be expended. In Section 2(h) of the Act it provides as follows:

> "(h) All net revenues hereafter accumulated from the power system shall be applied annually to the following purposes, in the following order of priority:
> (1) To liquidate all matured installments of the schedule of repayments for construction costs of the power system;
> (2) To liquidate all matured installments of the schedule of repayments of construction costs of the irrigation system of each division, on an equal per acre basis for all irrigable lands within the division;
> (3) To liquidate unmatured installments of the schedule of repayments for construction costs of the power system which will mature at a date not later than the maturity of any unliquidated installment of irrigation system construction costs;
> (4) To liquidate unmatured installments of the schedule of repayments for construction costs of the irrigation system of each division which will mature at a date prior to the maturity of any unliquidated installment of power system construction costs, on an equal per acre basis for all irrigable lands within the division;
> (5) To liquidate construction costs chargeable against Indian-owned lands the collection of which is deferred under the Act of July 1, 1932 (47 State. 564; 25 U.S.C, Sec. 386a); and
> (6) To liquidate the annual operation and maintenance costs of the irrigation system."

In other words the Act specifies six priorities which shall be followed in applying the net revenues.

The right hand portion of Table 12-1 is organized in columns which are in the order of the priorities listed in Section 2(h) of the 1948 Act. However, there should also be a brief qualification or description.

The first priority, liquidation of matured installments on the power system reimbursable costs, is Column 8.

The second priority turns out to have three components, namely the matured irrigation installment in Column 9, but also the non-Indian prepaid construction credit in Column 10 and the irrigation O&M credit for Indian land in Column 11.

The third priority is the unmatured installments for the power system costs, shown in Column 12. The fourth priority is the unmatured installments of the irrigation system costs, which is column 13.

The fifth priority is the deferred payment of the cost of irrigation construction on Indian land, and is Column 14. The sixth priority is the payment of the annual O&M costs of the irrigation system in Column 15.

The total of all the payments which have been made from the net power revenues year by year are totaled in Column 16.

Lastly, Column 17 is the amount of the net revenues remaining in each year after payment of all the installment payments listed.

In summary, as shown on Table 12-I, in the first priority, an installment payment has been made in every year (credit adjustments in 1958) on reimbursable power system construction costs. The installments are up-to-date. On the understanding, from the Solicitor's Legal Report as a part of this management study that the Account 470 construction funds are not reimbursable, the installment payments are current.

In the second priority, a payment from net power revenues has been made as an installment on the reimbursable irrigation construction costs each year. In addition, net power revenues were paid to the Irrigation Division in early years to pay for the O&M credit to non-Indian lands for prepaid construction costs. Likewise a payment was made from net power revenues each year to the Irrigation Division for the irrigation O&M credits on Indian-owned lands. All installment payments for reimbursement of irrigation construction costs have been from net power revenues; none have been paid from assessments on the land or landowners.

However, as discussed in Chapter 11, the annual irrigation installment has not paid the gross installment in full, because of the procedure in calculating the installment in relation to the $196,900 maximum specified in the Repayment Contracts. As a result, there is presently an unpaid portion of the matured irrigation installments of which payment has been deferred in each of the years 1958 to 1985, with a cumulative total of $679,663.02.

As of the 3rd priority and 4th priority, there have never been any payments made in advance into these priorities for any unmatured power installments or for any unmatured irrigation installments.

Likewise there have never been any annual payments from net power revenues to priority 5 for deferred Indian irrigation construction costs, or to priority 6 for irrigation O&M costs.

However, in regard to payments of net power revenue to irrigation O&M, at the time of our interview with the Power Superintendent, we inquired as to the allocation of various Project expenses to Power Division O&M. It was acknowledged by the Power Superintendent that the salary of the Irrigation Superintendent had been charged to power, as also had some of the accounting or clerical staff who did not do work for power. However, we were also advised that this practice had been stopped and an inquiry to the Administrative Officer indicated that this practice has been terminated.

Mentioned is being made of this matter at this point in the report to emphasize that if this practice is allowed to occur, it has the effect of completely reversing the priorities established by Congress in Section 2(h) of the 1948 Act, for it results in paying irrigation O&M costs even ahead of net revenue, instead of in 6th priority after all other installments are paid. It is recommended that a periodic audit of the Power Division include a review of what charges are being paid to power O&M costs.

In conclusion:

1) The scheduled matured power installments have been made and are current.
2) The irrigation scheduled matured installments have been paid up-to-date except for a cumulative total amount deferred of $679,663.02.
3) No installments, either power or irrigation, have been paid from other than net power revenues.

Table 12-1

FLATHEAD INDIAN IRRIGATION P
Analysis of Implemenation of Repayment Contra

Jar	1 Gross Power Revenue	2 Power System Operation and Maintenance: Replacement of Existing Plant (Account R-700)	3 Power System Operation and Maintenance: O&M (Account 700)	4 Total O&M (2+3)	5 Power System Extension and Improvement (Account 470)	6 Total Net Power Revenues (1-4-5)	7 Maturing Installment Due Date	8 Matured Installment Power System Paid	9 Matur Instal ment Irriga Syst Paid
48 to 49						$284,175	1-1-50	$57,687	$183,
0						348,899	1-1-51	62,136	176,
1						274,735	1-1-52	68,340	179,
2						182,983	1-1-53	72,069	180,
3						180,776	1-1-54	78,107	183,
4	N/A	N/A	N/A	N/A	N/A	199,197	1-1-55	83,719	186,
								(396,475)	
5	$684,324					241,247	1-1-56	15,347	191,
6	718,556	$128,100	$318,831	$446,931	$61,371	210,254	1-1-57	30,501	194,
									100,
7	748,698	122,203	365,705	487,908	97,587	163,203	1-1-58	(100,705)	196,
									(410,
8	764,949	64,890	407,871	472,761	71,000	221,188	1-1-59	31,804	160,
9	810,133	87,020	402,222	489,242	75,768	245,123	1-1-60	31,492	164,
0	894,094	72,100	456,673	528,773	81,505	283,816	1-1-61	31,276	165,
1	964,348	95,997	505,080	601,077	57,816	305,455	1-1-62	60,843	166,
									25,
2	1,030,443	87,050	569,331	656,381	79,155	294,907	1-1-63	46,990	167,
3	1,112,250	86,698	792,012	878,710	76,307	157,233	1-1-64	53,072	167,
4	1,172,572	158,036	697,395	855,431	82,990	234,151	1-1-65	49,767	167,
5	1,225,837	195,300	732,994	928,294	83,909	213,634	1-1-66	52,522	167,
6	1,297,069	116,505	723,010	839,515	65,248	392,306	1-1-67	86,134	167,
									1,
7	1,302,763	69,479	815,514	884,993	74,569	343,201	1-1-68	94,378	168,
8	1,284,485	138,665	811,780	950,445	91,749	242,291	1-1-69	84,689	172,
9	1,429,244	62,247	847,559	909,806	63,228	456,210	1-1-70	126,743	173,
0	1,445,771	117,424	772,762	890,186	94,535	461,050	1-1-71	109,051	174,
1	1,604,919	128,415	818,280	946,695	55,373	602,851	1-1-72	159,525	174,
									2,
2	1,763,537	338,932	727,616	1,066,548	42,817	654,172	1-1-73	179,489	174,
3	1,865,287	442,439	795,885	1,238,324	77,711	549,252	1-1-74	149,221	174,
4	1,940,769	697,708	976,766	1,674,474	76,486	189,809	1-1-75	154,968	174,
5	2,154,922	596,756	1,026,527	1,623,283	75,668	455,971	1-1-76	119,072	174,
6	2,732,544	465,837	1,030,805	1,496,642	68,077	1,167,825	1-1-77	133,701	174,
7	3,059,657	567,955	1,366,315	1,934,270	70,459	1,054,928	1-1-78	145,640	174,
8	3,318,703	844,187	1,479,112	2,323,299	59,128	936,276	1-1-79	168,390	174,
9	3,733,556	885,184	1,638,917	2,524,101	97,659	1,111,796	1-1-80	143,081	174,
0	3,658,165	1,251,718	2,055,186	3,306,904	63,513	287,748	1-1-81	199,029	174,
1	3,720,671	1,654,014	2,527,093	4,181,107	131,729	(592,165)	1-1-82	137,578	174,
2	4,376,295	805,061	3,435,468	4,240,529	426,402	(290,636)	1-1-83	269,502	174,
3	6,232,740	504,189	5,169,907	5,674,096	486,990	71,654	1-1-84	221,019	174,
4	8,732,852	467,296	5,791,060	6,258,356	470,098	2,004,398	1-1-85	216,493	174,

' From State Highway Dept.

N IRRIGATION PROJECT
payment Contracts from Power Revenues

8	9	10	11	12	13	14	15	16	17
	Priorities of Application of Net Power Revenues								
ured tall- ent wer tem id	Matured Install- ment Irrigation System Paid	Non-Indian Prepaid Construc- tion Cost Credit	Irrigation O&M Credit for Indian- owned Land	Unmatured Install- ment Power System	Unmatured Install- ment Irrigation System	Deferred Cost of Irrigation Construc- tion on Indian- owned Land	Annual O&M Costs of Irrigation System	Total Payments from Net Power Revenue (Total 8 thru 15)	Remaining Net Power Revenues after Install- ment Payments (6-16)
687	$183,294	$46,169	$32,587					$319,737	$(35,562)
								295,311	53,588
136	176,313	25,766	31,096					289,231	(14,496)
340	179,233	9,933	31,725					285,230	(102,247)
069	180,497	2,420	30,244					291,573	(110,797)
,107	183,163	966	29,337					305,076	(105,879)
,719	186,085	279	34,993					(396,475)	396,475
,475)								239,184	2,063
,347	191,775	86	31,976					287,894	(77,640)
,501	194,664	735	61,994					100,705	(100,705)
	100,705							133,221	29,982
,705)	196,807	340	36,779					(410,994)	410,994
	(410,994)							230,801	(9,613)
,804	160,985	317	35,598					228,393	16,730
,492	164,035	889	31,977					228,177	55,639
,276	165,186	252	31,463					257,743	47,712
,843	166,005	0	30,895					25,674*	(25,674)
	25,674*							243,890	51,017
,990	167,717	146	29,037					249,973	(92,740)
,072	167,296	124	29,481					246,667	(12,516)
,767	167,563	99	29,238					249,422	(35,788)
,522	167,323	135	29,442					283,034	109,272
,134	167,394	89	29,417					1,883*	(1,883)
	1,883*							291,278	51,923
,378	168,092	41	28,767					281,589	(39,298)
,689	172,541	0	24,359					323,643	132,567
,743	173,765	0	23,135					305,950	155,100
,051	174,300	0	22,599					356,425	246,426
,525	174,617	0	22,283					2,455*	(2,455)
	2,455*							376,389	277,783
,489	174,729	0	22,171					346,121	203,131
,221	174,844	0	22,056					351,868	(162,059)
,968	174,451	0	22,449					304,972	150,999
,072	174,275	0	22,625					330,601	837,224
,701	174,153	0	22,747					342,540	712,388
,640	174,376	0	22,524					365,290	570,986
,390	174,199	0	22,701					339,981	771,815
,081	174,424	0	22,476					395,929	(108,181)
,029	174,360	0	22,540					334,478	(926,643)
,578	174,499	0	22,401					466,402	(757,038)
,502	174,343	0	22,557					417,919	(346,265)
,019	174,620	0	22,280					413,393	1,591,005
,493	174,469	0	22,431						

4) No payments of either power or irrigation installments have been made in advance of the year for which scheduled.

5) There are some accumulated net power revenues that could be used to pay additional installments as provided in Section 2(h). However, it is recommended that, before making payment of such unmatured installment, a review should be made of all the financial needs of the Power Division and the decision be coordinated with those findings. This will be discussed later in the report.

Chapter 13

CALCULATION OF UPPER LIMIT OF ELECTRIC RATES
prescribed in 1948 Act

An important part of operation and management of the Power Division of FIIP is the setting of electric retail rates to collect the appropriate amount of revenue needed for FIIP.

In addition to covering its operating and maintenance expenses, FIIP is also under a mandate to hold its rates as low as possible which, at the same time, will meet several criteria. These standards are prescribed in Section 2(g) of the Act of May 25, 1948 (62 Stat. 269) as follows:

> "(g) Electric energy available for sale through the power system shall be sold at the lowest rates which, in the judgment of the Secretary of the Interior, will produce net revenues sufficient to liquidate the annual installments of the power system construction costs established pursuant to subsection (f) of this section, and (for the purpose of reducing the irrigation system construction costs chargeable against the lands embraced within the project and of insuring the carrying out of the intent and purpose of legislation and repayment contracts applicable to the project) to yield a reasonable return on the unliquidated portion of the power system construction costs, and (for the same purpose) to yield such additional sums as will cover the amount by which the wholesale value of the electric energy sold exceeds the cost thereof where such excess is the result of the electric energy having been obtained on a special in return for water rights or other grants."

In brief, the rates for sale of electric power by FIIP shall be the lowest rates which will produce net revenues sufficient to accomplish the following purposes:

1) liquidate the annual installments of power system construction costs, and
2) yield a reasonable return on the unliquidated portion of the power system construction costs, and

3) yield the amount by which the wholesale value of the electric energy sold exceeds the cost thereof, where such excess is the result of the energy having been obtained in return for water rights or other grants.

If the amount of net revenues which would be raised by the applying of these measures listed above is more than enough to also pay the installments of irrigation system construction costs and carry out the intent of the Act, then the electric rates shall be held down to the lowest rates which nevertheless will accomplish the intent.

In determining the gross amount of revenues, the operation and maintenance expenses, reserves and construction for extension and improvements of the system must also be included. The net revenue is the amount of revenue over those basic amounts.

Each of the three purposes listed above will be considered herein to determine the upper limit of net revenues which might have been raised in recent years within the apparent intent of the 1948 Act.

Three components of Net Revenue Upper Limit

1) Annual installment of power system construction costs

These are the installments for payment of power system construction costs which have been made for past years and are tabulated at Table No. 11-1 at Chapter 11.

2) Reasonable return on unliquidated portion of Power System Construction Costs

The data on the unliquidated portion of the power system construction costs for each year came from the final column on Table No. 11-2 in Chapter 11. The end-of-year balances of the prior year were used in this example, and are shown on Table No. 13-1 entitled "Reasonable Return on Unliquidated Portion of Power System Construction Costs".

The "unliquidated" portion of the power system construction costs does not include the amounts expended from project electric revenues through Account 470 for power system construction, because those expenditures are not considered to be reimbursable.

In determining "reasonable return", an interest rate was selected which would seem appropriate for FIIP, an agency of the United States. Several alternatives were considered; for the calculation herein we used the rates for the U.S. Treasury 10-year securities adjusted to constant maturity, as obtained from "Economic Indicators", U.S. Government Printing Office. Another alternative tried was the rate for 3-month U.S. Treasury Bills. In some years one alternative was above the other, and in some years lower.

The reasonable return on the unliquidated portion of power system construction costs calculated as it would have been for the years 1950 through 1985 is shown on Table 13-1. In recent years the return has increased substantially for the reasons 1) the unliquidated portion had increased because

of input of federal appropriations up to about 1982, and 2) because of the upsurge of interest rates for several years.

3) Amount by Which the Wholesale Value of Block Low-Cost Power Sold Exceeds the Cost Thereof

The electric energy referred to in Section 2(g) of the 1948 Act, "electric energy having been obtained on a special basis in return for water rights or other grants" is considered to refer to the block of low-cost power which was provided for in the license issued by the Federal Power Commission in 1930 to Rocky Mountain Power Company (later transferred to Montana Power Company) for the construction and development of power at Kerr Dam. The condition provided that the block of power would be made available to the United States for FIIP at specified rates. An equivalent block of power has also been provided to the United States for FIIP in the new license issued July 17, 1985, by the FERC in the relicensing of Kerr Dam.

The purpose and scope of this chapter is to determine what the upper limits of the net revenues would have been in the past years. A discussion of projection of future years will be covered in Chapter 14.

For the purpose of this analysis and calculation the reference to "wholesale value of the electric energy sold" is interpreted at this time to mean the cost of power sold by the Bonneville Power Administration (Bonneville) at its Wholesale Firm Power Preference Rate, at the rate level as it existed for the year being

considered. This rate is presently referred to as "Priority Firm Power Rate", Wholesale Power Rate Schedule PF-5. Table 13-2 sets forth a summary of the rate schedules of Bonneville Power Administration with the effective date of each.

This class of power may be purchased from Bonneville by public bodies, cooperatives, and Federal agencies for resale to ultimate consumers and for direct consumption. It must be used within the Pacific Northwest, which, by definition, includes all of the area of the Flathead Indian Reservation and the project service area.

The Project is eligible to purchase power from Bonneville and has been served by Bonneville since August 1, 1967. Through its sales agreement with Bonneville, FIIP may purchase all or a part of its total requirements from Bonneville.

The price for the Bonneville wholesale firm preference power will be used for the wholesale value referred to in Section 2(g) of the 1948 Act. However, the block of low-cost power from Montana Power Company is provided for at up to 100 percent load factor, which has a significant effect on the cost. For the alternative source of electricity to be properly compared, it too should be priced at 100 percent load factor. Therefore, the wholesale value of power for this study is considered to be Bonneville Wholesale Firm Preference Power taken at 100 percent load factor.

The derivation of the unit cost of Bonneville wholesale firm preference power taken at 100 percent load factor is set forth on Table 13-3. The unit cost at 100 percent load factor is only about 80 percent of the cost if taken at typical load fluctuation.

Because the power taken from Montana Power Company is at a steady continuous amount, the fluctuations and peaks of power into FIIP power system must all come from Bonneville system. This will cause the fluctuations, dips and peaks in the demands on the Bonneville power occasioned by FIIP to be greater than the typical range. This will cause the demand charges to be somewhat higher for FIIP than in other systems the same size.

The amount of "electric energy sold" referred to in Section 2(g) of the 1948 Act was considered to be the amount of the block of low-cost power, also known as bargain power, which was sold. Table No. 13-4 entitled "Calculation of Amount of Bargain Power Sold" sets forth the calculation by years, 1970 through 1984. It is apparent that only in the years since 1980 have the amounts of power from Montana Power Company been held strictly to the license quantities.

The additional value of bargain power sold is the amount by which the wholesale value of the bargain power exceeds the cost thereof. The calculation of the value by years is shown on Table No. 13-5. During the years when the spread was small between the unit cost of Bonneville power and the bargain power, the excess value of the block of bargain power was small. However, in recent years the unit cost of Bonneville power increased substantially, thus also increasing the spread between it and the bargain power. As a result, the value of the bargain power likewise increased substantially.

Upper Limits of Net Revenues and Gross Power Revenues

The several measures of revenues to be used for calculating the net revenues and gross power revenues are brought together in Table No. 13-6 entitled "Upper Limits of Net Power Revenues and Gross Power Revenues", for the years 1970 through 1984. The term "upper limit of net power revenues and gross power revenues" is used to mean the upper limit of revenues from sales of electric energy through the power system, and miscellaneous revenues, which will be used for the setting of electric rates for sale of power by FIIP.

Comparison of Actual Gross Power Revenues and Calculated Upper Limit of Gross Power Revenues

The upper limits of power revenues as calculated in what is believed to be the intent of Section 2(g) of the 1948 Act are compared with the actual revenues from the power system for the fifteen years 1970 through 1984 on Table No. 13-7 entitled "Comparison of Actual Gross Power Revenues and Calculated Upper Limit of Gross Power Revenues".

Gross Revenue Limits

The 1948 Act in Section 2(g) sets upper limits on what the net revenues from the power system may be to carry out the intent of the Act.

However, the Act does not set any upper limit on the revenues for operating and maintaining the system. The comparison on Table 13-7 of gross revenues includes in both Columns 1 and 2 the same actual amounts for operation and maintenance

and construction through Account 470. Therefore, although the figures are of the gross revenue, they nevertheless represent a comparison of the net revenues, actual and calculated upper limit.

Comparison of Net Power Revenues

A comparison just of the net power revenues may be more meaningful, which are shown on Table No. 13-8 entitled "Comparison of Actual Net Power Revenues and Upper Limit Net Power Revenues" intended to be according to the apparent intent of Section 2(g) of the 1948 Act. Column 1 lists the actual net power revenues for each year 1970 through 1984 and Column 3 is the computed upper limits of net revenues based on the provisions of Section 2(g) of the 1948 Act. The middle Column, Column 2, has been added to show the actual total payments made from net revenues according to the priorities listed in Section 2(h) of the 1948 Act.

Analysis of Table 13-8 comparing Columns 1 and 3 indicates that in ten out of fifteen years, the actual net power revenues exceed the calculated upper limit prescribed in Section 2(g) of the 1948 Act, with the difference fluctuating substantially.

On the other hand, a comparison of Columns 2 and 3 shows that in every year the actual payments for items specified in the six priorities of Section 2(h) of the 1948 Act are less than the upper limit specified in Section 2(g).

It is clear from the comparison of Columns 2 and 3 that if the electric retail rates had been set to meet just O&M and the installment payments, the rates could have been set somewhat lower than they have. However, the gross revenues have fluctuated markedly. It is believed this illustrates that the revenue planning does not coordinate closely with other budget planning. As stated in the chapter on management aspects of the Power Division, this lack of coordinated long-time planning is considered to be the greatest deficiency of the Power Division.

Table 13-1

FLATHEAD INDIAN IRRIGATION PROJECT

Reasonable Return on Unliquidated Portion
of Power System Construction Costs
as defined in Subsection 2(g) of Act of May 25, 1948

Year	Unliquidated Portion of Power System Construction Cost at end of year of prior year	Rate of Return based on Treasury Security Yields (1) of prior year in percent	Reasonable Return on Unliquidated Portion of Construction Costs of Power System
1950	$1,351,166	2.50*(est.)	$33,779
1951	1,498,521	2.50*	37,463
1952	1,592,150	2.50*	39,804
1953	1,617,122	2.50*	40,428
1954	1,696,063	2.85	48,338
1955	1,756,538	2.40	42,157
1956	1,802,493	2.82	50,830
1957	1,628,371	3.18	51,782
1958	1,629,263	3.65	59,468
1959	1,803,629	3.32	59,880
1960	1,807,201	4.33	78,252
1961	1,832,968	4.12	75,518
1962	1,890,118	3.88	73,337
1963	1,936,878	3.95	76,507
1964	1,894,823	4.00	75,793
1965	1,843,251	4.19	77,232
1966	1,800,359	4.28	77,055
1967	2,057,478	4.92	101,228
1968	2,335,769	5.07	118,423
1969	2,336,887	5.65	132,034
1970	2,527,314	6.67	168,572
1971	2,646,189	7.35	194,495
1972	2,764,280	6.16	170,280
1973	2,749,361	6.21	170,735
1974	2,607,710	6.84	178,367
1975	2,492,889	7.56	188,462
1976	2,699,445	7.99	215,686
1977	2,688,966	7.61	204,630
1978	2,787,297	7.42	206,817
1979	2,956,439	8.41	248,637

Table 13-1

Year	Unliquidated Portion of Power System Construction Cost at end of year of prior year	Rate of Return based on Treasury Security Yields (1) of prior year in percent	Reasonable Return on Unliquidated Portion of Construction Costs of Power System
1980	2,966,522	9.44	280,040
1981	3,118,862	11.46	357,422
1982	3,052,814	13.91	424,646
1983	2,972,219	13.00	386,388
1984	2,714,797	11.10	301,342
1985	2,493,778	12.44	310,226

(1) Interest rate on U.S. Treasury 10-year securities adjusted to constant maturity. Data from "Economic Indicators", U.S. Government Printing Office.

Table 13-2

WHOLESALE FIRM PREFERENCE POWER RATES
of
BONNEVILLE POWER ADMINISTRATION

Effective Date	Schedule No.	Demand Charge per kilowatt of billing demand	Energy Charge
Apr. 1, 1948	E-4	$0.75	First 200 kwh per kw of billing demand 2.0 mills/per kwh Additional kilowatt hours 1.0 mill
Dec. 20, 1959	E-4	$0.75	First 200 kwh per kw of billing demand 2.0 mills per kwh Additional kilowatt hours at 1.0 mill
Dec. 20, 1960	E-5	$0.95	1.25 mills per kwh
Dec. 20, 1969	E-5	$0.95	1.25 mills per kwh
Dec. 20, 1974	EC-6	Winter; Sept. 1 to Mar. 31 $1.05 Summer; Apr. 1 thru Aug. 31 0.93	Winter; Sept. 1 to Mar. 31 1.9 mills per kwh Summer; Apr. 1 thru Aug. 31 1.0 mills per kwh
Dec. 20, 1979	EC-8	Winter; Dec. thru May, Mon. thru Sat., 7 a.m. to 10 p.m. $1.95 Summer; June thru Nov., Mon. thru Sat., 7 a.m. to 10 p.m. 1.19 All other hours - no demand charge	September thru March 4.13 mills per kwh April thru August 3.76 mills per kwh of billing energy
July 1, 1981	PF-1	Dec. thru May, Mon. - Sat. 7 a.m. thru 10 p.m. $2.80 June thru Nov., Mon. - Sat. 7 a.m. thru 10 p.m. 1.44 All other hours - no demand charge	September thru March 7.4 mills per kwh April thru August 6.9 mills per kwh
Oct. 1, 1982	PF-2	Dec. thru May, Mon. - Sat. 7 a.m. thru 10 p.m. $4.21 June thru Nov., Mon. - Sat. 7 a.m. thru 10 p.m. 1.91 All other hours - no demand charge	September thru March 12.4 mills per kwh April thru August 11.8 mills per kwh
Nov. 1, 1983	PF-83	Dec. thru Apr., Mon - Sat., 7 a.m. thru 10 p.m. $5.57 May thru Nov., Mon. - Sat., 7 a.m. thru 10 p.m. 2.42 All other hours - no demand charge	September thru March 15.9 mills per kwh April thru August 12.7 mills per kwh
May 1, 1985	PF-85	Dec. thru Apr., peak period $4.33 May thru Nov., peak period 2.60 All other hours - no demand charge	Sept. thru March 16.6 mills per kwh April thru August 14.0 mills per kwh

Table 13-3

COST OF BONNEVILLE WHOLESALE FIRM PREFERENCE POWER

if Taken at 100% Load Factor
in Same Amounts as Low-Cost Block of Power

Year	Kwh	Demand Charge	Energy Charge	Total Charge	Unit Cost at 100% Load Factor mills/Kwh
1970	84,579,984	$109,943.50	$105,508.98	$215,452.48	2.55
1971	84,579,984	109,943.50	105,508.98	215,452.48	2.55
1972	84,759,168	109,943.50	105,732.96	215,676.46	2.54
1973	84,579,984	109,943.50	105,508.98	215,452.48	2.55
1974	84,579,984	110,232.51	106,906.62	217,139.13	2.57
1975	84,579,984	114,796.50	123,688.22	238,484.72	2.82
1976	84,759,168	114,796.50	124,028.67	238,825.17	2.82
1977	84,579,984	114,796.50	123,688.22	238,484.72	2.82
1978	84,579,984	114,796.50	123,688.22	238,484.72	2.82
1979	84,579,984	117,397.56	128,823.63	246,221.19	2.91
1980	84,759,168	177,439.34	334,838.61	512,277.95	6.04
1981	84,579,984	196,851.94	475,788.93	672,640.87	7.95
1982	84,579,984	257,030.32	701,643.80	958,674.12	11.33
1983	84,579,984	355,212.92	1,062,371.75	1,417,584.67	16.76
1984	84,759,168	409,418.20	1,216,066.29	1,625,484.49	19.18
1985	84,579,984	413,600.24	1,275,327.30	1,688,927.54	19.97
1986	84,579,984	371,938.72	1,297,099.09	1,669,037.81	19.73

Note: Block of Low-Cost Power is for capacity and energy 1) during all months of the year up to 7,466 kilowatts at up to 100 percent load factor and 2) during the months of April through October, additional capacity of up to 3,734 kilowatts at up to 100 percent load factor. At 100 percent load factor the energy equals 84,579,984 kilowatt-hours per year.

Table 13-4

FLATHEAD INDIAN IRRIGATION PROJECT

Calculation of Amount of Bargain Power Sold

in

kilowatt-hours

	1	2	3	4	5	6
		Non-Sales				Net
	Power from Montana Power Company	Project Pumping Plant on Flathead River	Plant Use of Power Division	Losses @ 10% of Input	Total Amount Used by Project Not Sold (2+3+4)	Amount of Bargain Power Sold kwh (1-5)
Year	kwh					
1970	95,980,850	316,191	592,245	9,598,085	10,506,521	85,474,329
1971	91,222,450	4,799,191	675,019	9,122,245	14,596,455	76,625,995
1972	93,973,200	7,769,866	684,211	9,397,320	17,851,397	76,121,803
1973	96,429,900	27,021,235	585,473	9,642,990	37,249,698	59,180,202
1974	95,774,300	2,917,522	499,054	9,577,430	12,994,006	82,780,294
1975	96,791,000	5,713,116	545,071	9,679,100	15,937,287	80,853,713
1976	97,608,000	140,048	554,217	9,760,800	10,455,065	87,152,935
1977	97,905,150	25,405,586	645,041	9,790,515	35,841,142	62,064,008
1978	97,825,000	186,131	662,258	9,782,500	10,630,889	87,194,111
1979	98,049,200	8,520,595	609,089	9,804,920	18,934,604	79,114,596
1980	92,655,504	3,017,389	569,143	9,265,550	12,852,082	79,803,422
1981	84,579,984	91,093	589,781	8,457,998	9,138,872	75,441,112
1982	84,359,000	108,572	656,745	8,435,900	9,201,217	75,157,783
1983	84,586,000	89,965	606,620	8,458,600	9,155,185	75,430,815
1984	84,761,000	4,002,976	694,839	8,476,100	13,173,915	71,587,085

Notes:

(1) Bargain Power refers to the capacity and energy at up to 11.2 megawatts made available by Montana Power Company to the United States for the Flathead Irrigation Project at the Kerr Substation in compliance with Article 40 of the FERC License for Kerr Project, as follows: 1) during all months of the year up to 7,466 kilowatts at up to 100 percent load factor and 2) during the months of April through October additional capacity of up to 3,734 kilowatts at up to 100 percent load factor.

Table 13-5

FLATHEAD INDIAN IRRIGATION PROJECT

Calculation of Amount by Which the
Wholesale Value of Project's Bargain Power Sold
exceeds the Cost of the Bargain Power (1)

Year	1 Bargain Power Sold in Kwh (note (2))	2 Bargain Power Unit Cost mills/kwh	3 Wholesale Value Bonneville Power at 100% Load Factor (note (3))	4 Excess Wholesale Bonneville Unit Cost over Bargain Power Unit Cost mills/kwh (3-2)	5 Additional Value of Bargain Power Sold (1x4)
1970	85,474,329	1.58	2.55	0.97	$ 82,910
1971	76,625,995	1.58	2.55	0.97	74,327
1972	76,121,803	1.58	2.54	0.96	73,077
1973	59,180,202	1.58	2.55	0.97	57,405
1974	82,780,294	1.58	2.57	0.99	81,952
1975	80,853,713	1.58	2.82	1.24	100,258
1976	87,152,935	1.58	2.82	1.24	108,070
1977	62,064,008	1.58	2.82	1.24	76,959
1978	87,194,111	1.58	2.82	1.24	108,121
1979	79,114,596	1.58	2.91	1.33	105,223
1980	79,803,422	1.58	6.04	4.46	355,921
1981	75,441,112	1.58	7.95	6.37	480,559
1982	75,157,783	1.58	11.33	9.75	732,790
1983	75,430,815	1.58	16.76	15.18	1,145,043
1984	71,587,085	1.58	19.18	17.60	1,259,931
1985	72,000,000*	4.81	19.97	15.16	1,091,520

Notes:

* Estimate

(1) Calculation is to illustrate the procedure expressed in Section 2(g) of the Act of May 25, 1948.

The term "Bargain Power" refers to block of low-cost power which is the capacity and energy at up to 11.2 megawatts made available to the United States for the Project by Montana Power Company at the Kerr Substation in compliance with the F.E.R.C. License for Kerr.

(2) Calculation of quantity sold is from Table No. 13-3.

(3) The wholesale value to the Flathead Indian Irrigation Project of power at this time is considered to be the cost for Bonneville Wholesale Firm Preference Power. Low-cost block of power is at 100% load factor, so Bonneville power unit cost is calculated at 100% load factor.

Table 13-6

FLATHEAD INDIAN IRRIGATION PROJECT

Upper Limits of Net Power Revenues and Gross Revenues
in Setting Electric Rates for the Project
as specified in Subsection 2(g) of Act of May 25, 1948

Year	1 Annual Maturing Installment of Power System Construction Costs	2 Reasonable Return on Unliquidated Portion of Power System Construction Costs	3 Additional Sum by which Wholesale Value of Bargain Power Exceeds Cost	4 Upper Limit Net Power Revenue (1+2+3)	5 Power O&M	6 Power System Construction Cost (Acct. 470)	7 Reserves	8 Upper Limit Gross Power Revenues (4+5+6+7)
1970	126,743	168,572	82,910	378,225	890,186	94,535		1,362,946
1971	109,051	194,495	74,327	377,873	946,695	55,373		1,379,941
1972	159,525	170,280	73,077	402,882	1,066,548	42,817		1,512,247
1973	179,489	170,735	57,405	407,629	1,238,324	77,711		1,723,664
1974	149,221	178,367	81,952	409,540	1,674,474	76,486		2,160,500
1975	154,968	188,462	100,258	443,688	1,623,283	76,668		2,143,639
1976	119,072	215,686	108,070	442,828	1,496,642	68,076		2,007,546
1977	133,701	204,630	76,959	415,290	1,934,270	70,459		2,420,019
1978	145,640	206,817	108,121	460,578	2,323,299	59,128		2,843,005
1979	168,390	248,637	105,223	522,250	2,524,101	97,659		3,144,010
1980	143,081	280,040	355,921	779,042	3,306,904	63,513		4,149,459
1981	199,029	357,422	480,559	1,037,010	4,181,107	131,729		5,349,846
1982	137,578	424,646	732,790	1,295,014	4,240,529	426,401		5,961,944
1983	269,502	386,388	1,145,043	1,800,933	5,674,096	486,990		7,962,019
1984	221,019	301,342	1,259,931	1,782,292	6,258,356	470,098		8,510,746

Table 13-7

FLATHEAD INDIAN IRRIGATION PROJECT

Comparison of
Actual Gross Power Revenues
and
Upper Limit of Gross Power Revenues
Calculated according to Subsection 2(g) of Act of May 25, 1948

(in $1000's)

	1 Actual Gross Power Revenue based on rates set by Project (x 1000)	2 Upper Limit of Revenue Specified in Act (x 1000)	3 Difference between Actual Revenue and Upper Limit (x 1000)
1970	$1,446	$1,363	$ 83 excess
1971	1,605	1,380	225 excess
1972	1,764	1,512	252 excess
1973	1,865	1,724	141 excess
1974	1,941	2,160	219
1975	2,155	2,144	11 excess
1976	2,733	2,008	725 excess
1977	3,060	2,420	640 excess
1978	3,319	2,843	476 excess
1979	3,734	3,144	590 excess
1980	3,658	4,149	491
1981	3,721	5,350	1,629
1982	4,376	5,962	1,586
1983	6,233	7,962	1,729
1984	8,733	8,511	222 excess

Table 13-8

FLATHEAD INDIAN IRRIGATION PROJECT

Comparison of Actual Net Power Revenue
and Upper Limit Net Power Revenues

Year	1 Actual Net Power Revenues(1)	2 Actual Total Payments from Net Power Revenues (as per Priorities of Section 2(h) 1948 Act)(2)	3 Calculated Upper Limit Net Power Revenues (as per Section 2(g) 1948 Act)(3)
1970	$461,050	$305,950	$378,225
1971	602,851	356,425	377,873
1972	654,172	376,389	402,882
1973	549,252	346,121	407,629
1974	189,809	351,868	409,540
1975	455,971	315,972	443,688
1976	1,167,825	330,601	442,828
1977	1,054,928	342,540	415,290
1978	936,276	365,290	460,578
1979	1,111,796	339,981	522,250
1980	287,748	395,929	779,042
1981	(592,165)	334,478	1,037,010
1982	(290,636)	466,402	1,295,014
1983	71,654	417,919	1,800,933
1984	2,004,398	413,393	1,782,292

Notes:

(1) From Column 6 of Table No. 12-1

(2) From Column 16 of Table No. 12-1

(3) From Column 4 of Table No. 13-6

Chapter 14

PROJECTION OF FUTURE NET REVENUES AND GROSS REVENUES

The purpose of this chapter is to consider what may be the future costs of the power system, and to project what may be the upper limits of net revenue which should be considered in setting electric rates, and from those to project what may be the future gross revenues of FIIP. Included in the future costs are the amounts which are believed necessary to correct present system physical and technical deficiencies and to upgrade the system on a longer-range basis. Also included is provision of amounts for an Emergency Reserve.

Purchased Power

The biggest single items of operational costs of the power system are those for purchased power. This is likely to continue to be so.

Hydroelectric Generation by Project

The Big Creek Hydroelectric plant of FIIP has been a source of power for many years. Although the cost accounting is under a separate O&M category rather than under Purchased Power, it is mentioned here to indicate that it is included as a source of future power averaging about 2 million kilowatt-hours per year.

Montana Power Company

The block of low-cost power from Montana Power Company can be expected to be scheduled and taken from Montana Power Company continuously at the full amount of up to 11,200 kilowatts as provided for the FERC license, in other words at 100 percent load factor. At that rate the total energy available during a 365-day year is approximately 84,580 megawatt hours for a year.

Those portions of the bargain power used at FIIP's pumping plant on the Flathead River about 2 miles west of Polson are paid to Montana Power Company from the Irrigation Division accounts, and so are not accounted for as a part of the Power Division costs of purchased power. The amount used for pumping varies greatly from year to year. For the purpose of this study in projecting future costs of the power system, it is assumed that the bargain power used by the pumping plant will be 4,000 megawatt-hours per year, which is somewhat of a median value.

Therefore,the net bargain power paid for by the Power Division is assumed to be 84,580 MWH minus 4,000 MWH, equaling 80,580 MWH per year.

The rate to be charged to FIIP for the bargain power by Montana Power Company is specified in Article 40(a) of the license issued by the Federal Energy Regulatory Commission (FERC) on July 17, 1985. The rate starts out in 1985 at 12 mills per kilowatt-hour, which is made up of a fixed portion of 3.5 mills per kwh and a variable portion starting at 8.5 mills per kwh which may be adjusted each year

in proportion to the change in Consumer Price Index. The license year effective date is September 5, 1985.

The projection of the future unit cost of the bargain power is tabulated on Table No. 14-1. The variable portion is adjusted each year with an assumed Consumer Price Index increase of 4 percent per year compounded. Column 4 of Table No. 14-1 is a weighted average rate for each calendar year for use in these projections.

The projected cost of the bargain power to be paid by the Power Division is set forth on Table No. 14-2.

Bonneville Power

It is estimated that the load on FIIP's power system will grow at a rate of 2.07 percent per year compounded. A projection of the total power into the FIIP system is shown in Column 1 of Table 14-3, excluding the amounts for the pumping plant which is paid for by Irrigation. Because the amounts from Montana Power Company and the Big Creek hydro plant will not increase, the entire growth in system load on the system will have to be served from the Bonneville source. Column 4 of Table No. 14-3 shows the amount of power projected to be purchased from Bonneville. The estimated unit rate for the power is shown on Column 5, it

being assumed that the future rates will escalate at 3 percent per year, somewhat less than the Consumer Price Index. The projected cost of the power purchased from Bonneville is in Column 6 of Table 14-3.

Repair and Replacement Construction (Account R-700)

Chapter 3 discussed the power system and its adequacy. It also reported on deficiencies, and recommended an immediate program during the three years 1986 through 1988 to correct those particular problems in an amount estimated at $1,700,000. It is believed that much of this work would be charged to the O&M Account R-700, "Replacement of Existing Plant", so it is accounted for there in the years 1986 - 1988, and shown in Column 7 of Table 14-4.

Projection of Operation and Maintenance Costs

All of the items making up the projected O&M costs of the Power Division are combined into Table No. 14-4. The administration costs and all other costs not otherwise discussed are assumed to escalate at a rate of 4 percent per year.

Power System Extensions and Improvements

The improvement and expansion needs of the power system for the 22-year period from 1989 to 2010 were discussed in Chapter 4. It was recommended that a more comprehensive long-range planning study should be done of the power system, but this preliminary study indicates that system upgrading and expansion needs are foreseen which will cost an estimated $22,761,000 (in 1985 dollars) for the period 1989 to 2010. These are expenditures over and above the ongoing expense

of normal system growth such as distribution transformers, service connections and line extensions.

The historical expenditures for extensions and improvements of the power system are discussed in Chapter 9. In the last five years, 1980 through 1984, the cost of extensions and improvements has averaged $460,000 per year. This represents the combined total of the construction funded from electric operating revenues (Account 470) and federal Appropriations - Advice of Allotments (Account 024).

The projections for the recommended upgrading, extension and improvement of the power system in future years assumes the use of Account 470 funds from electric operating revenues and does not assume any general federal appropriations. The projections are based on the expenditures increasing to $1 million a year by 1989 and increasing gradually as the needed work can be planned and designed for construction. These amounts are listed in Column 6 of Table No. 14-8.

Financial Reserves

The status of available funds for the Power Division was discussed in Chapter 8. It was recommended that the present Emergency Reserve of $10,000 be increased to $1,000.000 by transferring from electric operating revenues $330,000 per year each year 1986 through 1988. These amounts are included in the projection of future needs for gross revenues, being at Column 7 of Table No. 14-8.

The provision for a cash working allowance is not listed separately in Table 14-8 because there appear to be sufficient funds on and at the present time (October 1985) to provide for that allowance as well as for paying off the $680,000 of deferred matured installment payments on irrigation construction costs discussed in Chapter 11.

Three Components of Net Power Revenues Upper Limit

The total amount of charges which can be raised from electric rates of the power system was specified in section 2(g) in the 1948 Act. This was discussed in Chapter 13 where the figures were developed as to the upper limits of revenues, allowable under the intent of the Act as they would have been in years past, from 1970 through 1984.

The same type of analysis is made in this chapter herein projected for the future years 1985 though 1999.

1) Future Installments to Complete Repayment of Power Construction Costs

The remaining balance of unpaid power system construction costs after the payment of Installment No. 36 on January 1, 1985, is $2,277,285.00. The remaining installments for repaying these power system costs are shown on Table No. 14-5. The allocation of the payments by years is partially estimated, with final payment scheduled in the year 2008, which is 25 years after the last costs were incurred in 1983 from federal appropriations (Account 024).

2) Projection of Resonable Return on Unliquidated Portion of Power System Construction Costs

The remaining unliquidated portion of the power system construction costs is projected on Table No. 14-6, assuming that the installments will be paid off on the maturing installments and not prepaid. Also, it is assumed there will not be additional federal appropriations added which would increase the remaining obligation.

The interest rate used for a reasonable rate of return was assumed to drop over the next 3 years to 7 percent and to then remain at that level throughout the remaining repayment period. This projection is, of course, uncertain, but the magnitude of the projected "reasonable return" gradually diminishes to zero, and so the effect on the revenue becomes minimal.

3) Projection of Amount by which Wholesale Value of Block of Low-Cost Power Sold Exceeds its Cost

The subject was discussed in Chapter 13 of the amount by which the wholesale value of the bargain power sold exceeds the cost thereof. In making these projections into the future it should be said that the electric energy referred to in Section 2(g) of the 1948 Act "electric energy having been obtained on a special basis in return for water rights or grants" is considered to refer to the block of low-cost power provided for in the license for the relicensing of Kerr Dam issued on July 17, 1985, by the FERC to the Montana Power Company (Montana) and The Confederated Salish and Kootenai Tribes of the

Flathead Reservation (Tribes). Article 40(a) of the new license provides that Montana Power Company, until such time as it conveys the project to the Tribes, will make available to the United States for FIIP or the Districts, the capacity and energy somewhat equivalent to that which was described herein before in connection with the original license. It differs as to rate of payment which is variable and it differs in that it assures the availability of the power only until Montana conveys the project to the Tribes.

A method of resolving the question in the future is provided in Article 40(c) either through agreement of the parties or by FERC after hearings of the Commission, and subject to the authority of the Secretary of the Interior.

The projections being made in this study of future costs are extended only through 1999, so the question of the "electric energy having been obtained on a special basis in return for water rights or other grants" is set aside from consideration in making these calculations.

The "wholesale value" of the electric energy sold is considered at this time to be the cost of power from Bonneville at its Wholesale Priority Firm Power Rate, which presently is Wholesale Power Rate Schedule PF-5. As discussed in Chapter 13, the wholesale value of the Bonneville power will be calculated at 100 percent load factor, so as to be comparable with the block of low-cost power from Montana Power at 100 percent load factor.

The wholesale value of the Bonneville power at 100 load factor is shown in Column 3 of Table 14-7. It is projected that this unit cost of Bonneville power will escalate at a rate of 3 percent per year compounded. The unit cost of the bargain power is obtained from Column 4 of Table No. 14-1 and is tabulated on Table No. 14-7 at Column 2.

The additional value of the bargain power sold is listed in Column 5 of Table No. 14-7. The additional value drops from $1,094,400 in 1985 to $547,200 in 1986 because of the increased cost of bargain power in September 1985 from what it had been for the 46 years from 1939 to 1985. However, it is expected that the spread between the Bonneville rate and the bargain rate will gradually increase so the "additional value" will also increase.

Projection of Upper Limit of Net Power Revenues

The three measures specified in Section 2(g) of the 1984 Act for determining the limit of net revenues which may be raised by electric sales through the power system of FIIP are listed in Columns 1, 2, and 3 of Table No. 14-8 and a total in Column 4. The upper limit of net power revenues drops from $1,620,000 in 1985 to $965,000 in 1986. For the fourteen years 1986 through 1999 the upper limit of net revenues remains comparatively constant at an amount averaging $890,000 per year. This is the approximate amount which could be available last year to repay the United States for the unpaid costs of the power system and irrigation system.

Projected Gross Revenues

The projected gross revenues for the Power Division are shown in Column 8 of Table 14-8 including the upper limit of net revenues. The projected gross revenues for 1986 of $9,608,000 compares to gross revenues in 1984, the last full year of record, of $8,732,852. The projected growth of revenues would have to continue at about 4.8 percent per year.

Table 14-1

FLATHEAD INDIAN IRRIGATION PROJECT

Projected Future Unit Cost of Block of Low-Cost Power from Montana Power Company

	1	2	3	4
	Rate to be Paid to Montana Power became effective Sept. 5, 1985			Weighted Average Rate for Calendar Year
	Fixed Portion mills/kwh	Variable Portion (see note)	Total Rate mills/kwh (1+2)	mills/kwh
1985	3.5	8.50	12.00	4.81
1986	3.5	8.84	12.34	12.11
1987	3.5	9.19	12.69	12.45
1988	3.5	9.56	13.06	12.80
1989	3.5	9.94	13.44	13.18
1990	3.5	10.34	13.84	13.56
1991	3.5	10.76	14.26	13.97
1992	3.5	11.19	14.69	14.39
1993	3.5	11.63	15.13	14.83
1994	3.5	12.10	15.60	15.28
1995	3.5	12.58	16.08	15.75
1996	3.5	13.09	16.59	16.24
1997	3.5	13.61	17.11	16.75
1998	3.5	14.15	17.65	17.28
1999	3.5	14.72	18.22	17.83
2000	3.5	15.31	18.81	18.40

Note: The variable portion (8.5 mills) of the rate in each succeeding license year will change in proportion to the change in Consumer Price Index (CPI); reference Article 40(a) of FERC License issued July 17, 1985, for Project 5 (Kerr).

For this projection it is assumed the CPI will increase at a rate of 4 percent per year compounded.

Table 14-2

FLATHEAD INDIAN IRRIGATION PROJECT

Projected Cost of Bargain Power Purchased by Power Division

Year	Bargain Power into Project Power System in 1000 kwh	Less Bargain Power Used by Pumping Plant Paid for by Irrigation Division 1000 kwh	Net Bargain Power Paid for by Power Division in 1000 kwh	Projected Rate for Purchase from MPC in mills/kwh	Projected Cost of Bargain Power to Power Division $
1985	84,580	4,000	80,580	4.81	387,590
1986	84,580	4,000	80,580	12.11	975,824
1987	84,580	4,000	80,580	12.45	1,003,221
1988	84,580	4,000	80,580	12.80	1,031,424
1989	84,580	4,000	80,580	13.18	1,062,044
1990	84,580	4,000	80,580	13.56	1,092,665
1991	84,580	4,000	80,580	13.97	1,125,703
1992	84,580	4,000	80,580	14.39	1,159,546
1993	84,580	4,000	80,580	14.83	1,195,001
1994	84,580	4,000	80,580	15.28	1,231,262
1995	84,580	4,000	80,580	15.75	1,269,135
1996	84,580	4,000	80,580	16.25	1,309,425
1997	84,580	4,000	80,580	16.76	1,350,521
1998	84,580	4,000	80,580	17.29	1,393,228
1999	84,580	4,000	80,580	17.85	1,438,353

Note: Bargain Power used by Project Pumping Plant varies widely by years. The amount used in calculations is an intermediate quantity. The power used by Project Pumping Plant is paid direct to Montana Power Company from Irrigation Division and is not accounted for as part of power sales in power revenues.

Table 14-3

FLATHEAD INDIAN IRRIGATION PROJECT

Projection of Cost of Future Purchases of Bonneville Power

Year	1 Power into System (Excluding Pumping Plant)(1) Kwh x 1000	2 Less MPC Bargain Power into System(2) Kwh x 1000	3 Less Hydro Generation Kwh x 1000	4 Amount to Purchase from Bonneville Power Kwh x 1000 (1-2-3)	5 Projected BPA Power Unit Cost Escalating at 3%(3) in mills/kwh	6 Projected Cost of Power Purchased from Bonneville (4x5)
1985	249,424	80,580	2,000	166,844	22.9	$3,820,700
1986	254,587	80,580	2,000	172,007	23.6	4,059,400
1987	259,857	80,580	2,000	177,277	24.3	4,307,800
1988	265,236	80,580	2,000	182,656	25.0	4,556,400
1989	270,727	80,580	2,000	188,147	25.8	4,854,200
1990	276,331	80,580	2,000	193,751	26.5	5,134,400
1991	282,051	80,580	2,000	199,471	27.3	5,445,600
1992	287,889	80,580	2,000	205,309	28.2	5,789,700
1993	293,849	80,580	2,000	211,269	29.0	6,126,800
1994	299,931	80,580	2,000	217,351	29.9	6,498,800
1995	306,140	80,580	2,000	223,560	30.8	6,885,600
1996	312,477	80,580	2,000	229,897	31.7	7,287,700
1997	318,945	80,580	2,000	236,365	32.6	7,705,500
1998	325,547	80,580	2,000	242,968	33.6	8,163,700
1999	332,286	80,580	2,000	249,706	34.6	8,639,800

Notes:

(1) Electric load growth in Project service area is assumed to be at a compounded annual growth rate of 2.07% per year.

(2) Montana Power Company Bargain Power into System is 84,580 MWH minus estimated median use for pumping of 4,000 MWH for net amount of 80,580 MWH.

(3) The unit cost of Bonneville power is assumed to escalate after 1985 at 3% per year compounded. The unit cost of Bonneville Power is assumed to be at a typical load factor.

Table 14-4

FLATHEAD INDIAN IRRIGATION PROJECT

Projection of Power Division Operating & Maintenance Costs
(in Thousands)

	1	2	3	4	5	6	7	8
	Purchased Power						Repair & Replacement Construc-tion	
	BPA	MPC*	Total (1+2)	Admin.	All Other	Total Account 700 (3+4+5)	Account R-700	Total O&M (6+7)
1985	$3,821	$ 388	$4,209	$ 806	$1,192	$6,207	$ 500	$ 6,707
1986	4,059	976	5,035	838	1,240	7,113	700	7,813
1987	4,308	1,003	5,311	871	1,290	7,472	900	8,372
1988	4,556	1,031	5,587	906	1,341	7,834	1,100	8,934
1989	4,854	1,062	5,916	942	1,395	8,253	600	8,853
1990	5,134	1,093	6,227	980	1,450	8,657	600	9,257
1991	5,446	1,126	6,572	1,019	1,509	9,100	600	9,700
1992	5,790	1,160	6,950	1,060	1,569	9,579	600	10,179
1993	6,127	1,195	7,322	1,102	1,632	10,056	700	10,756
1994	6,499	1,231	7,730	1,146	1,697	10,573	700	11,273
1995	6,886	1,269	8,155	1,192	1,765	11,112	800	11,912
1996	7,288	1,309	8,597	1,240	1,836	11,673	800	12,473
1997	7,705	1,351	9,056	1,289	1,909	12,254	800	13,054
1998	8,164	1,393	9,557	1,341	1,985	12,883	800	13,683
1999	8,640	1,438	10,078	1,394	2,065	13,537	900	14,437

* Represents cost of portion paid for Power Division; excludes portion (estimated median 4,000,000 kwh) paid for by Irrigation Division.

Table 14-5

FLATHEAD INDIAN IRRIGATION PROJECT

Projection of Future Power Installments
to Complete the Repayment of
Reimbursable Power System Construction Costs

(assuming no additional federal appropriations)

Year	Installment No.	Power Maturing Installment (x 1000)*
1986	37th	$211
1987	38th	205
1988	39th	198
1989	40th	194
1990	41st	191
1991	42nd	187
1992	43rd	172
1993	44th	139
1994	45th	106
1995	46th	95
1996	47th	85
1997	48th	76
1998	49th	71
1999	50th	69
2000	51st	68
2001	52nd	53
2002	53rd	49
2003	54th	40
2004	55th	30
2005	56th	22
2006	57th	11
2007	58th	4
2008	59th	1
2009	60th	0
		$2,277

* Partially estimated

Table 14-6

FLATHEAD INDIAN IRRIGATION PROJECT

Projection of Reasonable Return on Unliquidated Portion of Power System Construction Costs

	Unliquidated Portion of Power System Construction Cost (x 1000)	Rate of Return Estimated Percent	Projected Reasonable Return (x 1000)
1986	$2,066	10%	$207
1987	1,861	9	167
1988	1,663	8	133
1989	1,469	7	103
1990	1,278	7	89
1991	1,091	7	76
1992	919	7	64
1993	780	7	55
1994	674	7	47
1995	579	7	41
1996	494	7	35
1997	418	7	29
1998	347	7	24
1999	278	7	19
2000	210	7	15
2001	157	7	11
2002	108	7	8
2003	68	7	5
2004	38	7	3
2005	16	7	1
2006	5	7	-
2007	1	7	-
2008	0		0

Table 14-7

FLATHEAD INDIAN IRRIGATION PROJECT

Projection of Future Amount
by which
Wholesale Value of Project's Bargain Power Sold
May Exceed the Cost of Bargain Power (1)(2)

Year	1 Bargain Power Sold in Kwh(3)	2 Bargain Power Unit Cost mills/kwh	3 Wholesale Value Bonneville Power @ 100% Load Factor mills/kwh(4)	4 Excess Wholesale Bonneville Unit Cost over Bargain Power Unit Cost mills/kwh (3-2)	5 Additional Value of Bargain Power Sold (1x4)
1985	72,000,000	4.8	20.0	15.2	$1,094,400
1986	72,000,000	12.1	19.7	7.6	547,200
1987	72,000,000	12.5	20.3	7.8	561,600
1988	72,000,000	12.8	20.9	8.1	583,200
1989	72,000,000	13.2	21.6	8.4	604,800
1990	72,000,000	13.6	22.2	8.6	619,200
1991	72,000,000	14.0	22.9	8.9	640,800
1992	72,000,000	14.4	23.6	9.2	662,400
1993	72,000,000	14.8	24.3	9.5	684,000
1994	72,000,000	15.3	25.0	9.7	698,400
1995	72,000,000	15.7	25.7	10.0	720,000
1996	72,000,000	16.2	26.5	10.3	741,600
1997	72,000,000	16.8	27.3	10.5	756,000
1998	72,000,000	17.3	28.1	10.8	777,600
1999	72,000,000	17.9	29.0	11.1	799,200

Notes:

(1) To illustrate provision of Section 2(g) of the Act of May 25, 1948.

(2) Bargain Power refers to the capacity and energy made available to the United States for the Project by Montana Power Company in compliance with Article 40 of the F.E.R.C. License for Kerr.

(3) Bargain Power sold equals total available minus use by pumping plant, use by power division, and losses.

(4) The wholesale value of power to the Flathead Indian Irrigation Project at this time for the purpose of this calculation is considered to be the cost for Bonneville Wholesale Firm Preference Power taken at 100 percent load factor.

Table 14-8

FLATHEAD INDIAN IRRIGATION PROJECT

Projection of Upper Limit of Net Revenues
and Projected Gross Revenues
(in Thousands)

	1	2	3	4	5	6	7	8
	Net Power Revenues							
	Power Annual Maturing Installment	Reasonable Return on Unliquidated Construction Costs of Power System	Additional Bargain Power Sold	Upper Limit of Net Power Revenue (1+2+3)	Power Division O&M	Power System Extension and Improvement Acct. 470	Reserves	Projected Gross Revenues (4+5+6+7)
1985	216	310	1,094	1,620	6,707	400		8,727
1986	211	207	547	965	7,813	500	330	9,608
1987	205	167	562	934	8,372	700	330	10,336
1988	198	133	583	914	8,934	800	330	10,978
1989	194	103	605	902	8,853	1,000		10,755
1990	191	89	619	899	9,257	1,000		11,156
1991	187	76	641	904	9,700	1,100		11,704
1992	172	64	662	898	10,179	1,100		12,177
1993	139	55	684	878	10,756	1,200		12,834
1994	106	47	698	851	11,273	1,200		13,324
1995	95	41	720	856	11,912	1,500		14,268
1996	86	35	742	863	12,473	1,500		14,836
1997	76	29	756	861	13,054	1,500		15,415
1998	71	24	778	873	13,683	1,500		16,056
1999	69	19	799	887	14,437	1,500		16,824

Chapter 15

FUTURE REPAYMENT CAPABILITY OF POWER REVENUES

This chapter will make analyses and projections of the repayment capability of FIIP through its power revenues so as to reimburse the United States for the construction costs of the power system and irrigation system and carry out the intent of the 1948 Act in future years.

These analyses will make use of the projections which have been developed and combined in the previous Chapter 14 as to the future operation and maintenance costs of the power system, of the costs for an immediate program to correct system deficiencies over 3 years 1986 - 1988, of a longer-range program to upgrade the power system, and of the net revenues available to reimburse the United States for the remaining unpaid costs of construction of the power system and irrigation system of FIIP, and to implement the intent of the 1948 Act. Chapter 14 also included calculations projecting the limit of net revenues which might be raised from electric sales from the power system within the intent of Section 2(g) of the Act of May 25, 1948.

Accumulated Net Power Revenues

As of the end of the last calendar year, December 31, 1984, there were project power funds on hand of $2,064,940 against which there were obligated funds for undelivered orders and accounts payable of $884,933 for an unallotted balance of $1,180,007.

A cash working allowance of approximately one-eighth of the total operation and maintenance expenses for the year as discussed in Chapter 8 would be about $880,000. That amount would also roughly approximate the amount of undelivered orders (Account 200.3). A review of the continuing outstanding balance of "undelivered orders" indicates this balance continues at a fairly high level. It is suggested that the cash working allowance can serve a dual purpose of being available to pay for orders as they are delivered and to fluctuate during the year as the revenues fluctuate from season to season. This is preferable to having larger amounts of funds unnecessarily inactive; however, it requires more careful budgeting and planning. Another aspect of cash management is that the maturing installments for power and irrigation construction costs have a due date of January 1 of each year, but the accumulation of funds through the year to meet these payments also provides an additional cushion for much of the year.

It is estimated that as of December 31, 1985, there will be project power funds on hand (Account 131) of $2,500,000. If a cash working allowance of $880,000 is provided to the power division, it leaves a remaining balance of funds of $1,620,000. This balance does not include the $10,000 Emergency Reserve nor does it include about $480,000 of deposit funds.

It is recommended that payment be made of the 2nd priority matured irrigation installments which have been deferred in the amount of approximately $680,000 as discussed in Chapter 11. This would leave a total net power revenues as of December 31, 1985, of $940,000 as follows:

Project power funds (Account 131) (December 31, 1985)	$2,500,000
Less Cash working allowance (Approx. 1/8 of O&M)	880,000
Subtotal Net Power Revenues	$1,620,000
Payment of priority 2 matured irrigation installments	680,000
Subtotal Estimated Remaining Net Power Revenues, December 31, 1985	$ 940,000

Summary of Projections of Revenues, Cost and Repayment

Table No. 15-1 is entitled "Projection of Future Implementation of Repayment Contracts from Power Revenues - Method to Pay Off 3rd and 4th Priorities before Paying on 5th and 6th Priorities."

Table No. 15-1 shows the gross revenues and costs and net revenue on the left portion of the table, columns 1 through 8. On the right-hand portion of the table are the components of payments of net revenues listed in the order of priorities used in Section 2(h) of the 1948 Act. On the right portion of Table No. 15-1 is a projection starting January 1, 1986, and for each succeeding year to illustrate and evaluate how the net revenues could be used to repay the obligations to the United States, and for other priorities specified in Section 2(h) of the 1948 Act.

As stated previously, if the $680,000 of payment is made at once on the amounts deferred from irrigation matured installments, it is projected that there will be net revenues on hand as of December 31, 1985, of $940,000. That would be more than enough to allow the payment of Installment No. 37 for power and

Installment No. 37 for irrigation, both of which mature as of January 31, 1986, together with the payment of approximately $22,000 which is applied as a credit for irrigation O&M on Indian-owned lands.

Power Installments

Installment No. 37 for power is approximately $211,000. The information on additional future installments was obtained from Table 14-5.

Irrigation Installments

Installment No. 37 for irrigation is estimated because the schedule of future installments for irrigation construction costs was not available when this information was being developed. For the purpose of this study and report, we used the approximate $212,000 of the net maturing installment as it would be at this time if calculated as proposed in Table 11-10.

For the purpose of this study and the repayment illustrated in Table 15-1 herein, the level of repayment is continued at $212,000 until repayment is completed, which would be approximately twenty-three additional installments. Although it is recognized that the payments in the later years would taper off in size gradually over a longer period of years after the earliest obligations would have been paid off, nevertheless the analysis presented on Table No. 15-1 illustrates reasonably well the length of time to complete repayment. The main difference in the tabulation is that because the power installments would be paid off sooner, in the later years there would be only remaining irrigation installments, but more of them

per year. For example, the most recent costs incurred from reimbursable federal appropriations for irrigation construction was in 1983. Therefore, its payments would be scheduled to continue for 50 years, which would be to year 2033 but a much smaller amount . On the present numbering system that would be installment No. 84.

These analyses consider only the repayment obligations that exist at the present. If additional federal appropriations are made in the future, those have not been included in these tabulations.

In regard to the manner in which the irrigation installments are computed, as long as the payments are all being made from net power revenues, it would appear that the limit of $196,900 not apply, as discussed in Chapter 11, because the charge is not being assessed against the land.

However, if there is substantial question as to the interpretation, it is recommended that the Secretary of the Interior, in accord with subsection 6(c) at page 15 of the repayment contract, determine that it is necessary to exceed those limits to comply with the provisions of said Act.

The second priority of payments as prescribed in Section 2(h) of the 1948 Act is to liquidate any unpaid matured installments of the irrigation construction costs. The amount of $680,000 recommended to be paid in 1985 clearly falls into that category.

Irrigation O&M Credit for Indian-owned Land (Column 14)

An installment payment from net power revenues is listed in Column 14 of Table 15-1 each time there is an installment payments which is made for payment of irrigation construction costs, and continued in the same portion as they have been at approximately $22,000.

Priorities of Payments in Future Years

In applying the net revenues to payments of the unmatured installments of power (priority 3) and irrigation (Priority 4) and further priorities, there is a question as to the interpretation of Section 2(h) in applying the priorities for payments. Section 2(h) reads as follows:

> "(h) All net revenues hereafter accumulated from the power system shall be applied annually to the following purposes, in the following order of priority:
> (1) To liquidate all matured installments of the schedule of repayments for construction costs of the power system;
> (2) To liquidate all matured installments of the schedule of repayments for construction costs of the irrigation system of each division, on an equal per acre basis for all irrigable lands within the division;
> (3) To liquidate unmatured installments of the schedule of repayments for construction costs of the power system which will mature at a date not later than the maturity of any unliquidated installment of irrigation system construction costs;
> (4) To liquidate unmatured installments of the schedule of repayments for construction costs of the irrigation system of each division which will mature at a date prior to the maturity of any unliquidated installment of power system construction costs, on an equal per acre basis for all irrigable lands within the division;
> (5) To liquidate construction costs chargeable against Indian-owned lands the collection of which is deferred under the Act of July 1, 1932 (47 State. 564; 25 U.S.C., Sec.386a); and
> (6) To liquidate the annual operation and maintenance costs of the irrigation system." (Emphasis added.)

The payments of unmatured power and irrigation installments in priorities 3 and 4 are closely coordinated or intertied in order to have them keep up with each other in being paid off. This will not work out entirely that way in later years, because the power installments will pay out over a period of 25 years from the year when the costs are incurred, whereas the irrigation installments are scheduled to pay out over a period of 50 years from the year the costs are incurred.

Nevertheless, in Table 15-1 as illustrated in priority 3 it provides provided for a repayment of power installments whose maturity date is not later than the maturity date of any remaining irrigation installmentso as to comply with Section 2(h)(3) of the 1948 Act.

In priority 4 (irrigation unmatured installments) the example of Table 15-1 in each year coordinates with priority 3, providing for prepayment of irrigation installments whose maturity date is before that of any remaining power installment. In other words, an unmatured power installment may be prepaid, but before prepaying an additional power installment, a matching irrigation installment must also be prepaid.

The question raised is whether once a priority 3 payment is made (of a power installment) and a priority 4 payment is made (of an irrigation installment) to match it, can FIIP pay another priority 3 installment and another priority 4 installment, or must they proceed to a priority 5 payment?

The language at the beginning of Section 2(h) says

> "All net revenues hereafter accumulated from the power system shall be applied annually to the following purposes, in the following order of priority. . . . ."

One interpretation is that in any particular year if FIIP has made a payment in Priority 3 and one in Priority 4 it cannot go back to Priority 3 and 4 to make another payment, but must instead go to Priority 5 and possibly to Priority 6.

A review of the record suggests, first, that the United States Congress was concerned that the United Stataes be reimbursed for the costs invested in the power and irrigation systems and Congress authorized the use of the power revenues to insure that. Second, it wanted to have the repayment of irrigation costs on Indian lands deferred until after all other construction costs have been completely paid off, and lastly, they would pay irrigation O&M costs.

An appropriate interpretation seems to be that it was intended for the priority 3 and priority 4 costs to be paid off in their entirety before going on to priorities 5 and 6. Table No. 15-1 has been prepared based on that interpretation.

Analysis of Projected Repayment Capability of Power Revenues

The analysis indicates that the projected net power revenues in the near future years can be sufficient to prepay installments of power construction costs and irrigation construction costs each year if the electric rates are set to include that level of charges which is within the upper limit provided by Section 2(g) of the 1948 Act. The rate of reimbursement can be such that all remaining power and

irrigation construction costs for which FIIP is presently obligated would be paid off by about the year 1993.

The cost of irrigation construction on Indian-owned land for which payment has been deferred could be paid off by about the year 1995.

In years after 1995 there would be net power revenues available which could be applied to paying for irrigation operation and maintenance costs. As an alternative, the electric rates charged could be reduced or held down to benefit all the electric consumers who are customers of FIIP power system.

The above conclusions and findings are made based on the method of following the system of Section 2(h) priorities where all the priority 3 and prioritiy 4 payments would be liquidated before payment of priorities 5 and 6 items, as illustrated in Table No. 15-I.

It is recommended that this procedure be followed, as illustrated in Table 15-1.

Alternate Procedure of Paying All Priorities in Each Year

An alternate procedure is also presented herein, which interprets the wording of Section 2(h) to say that in applying the net power revenues, all of the net revenues must be applied each year to the several purposes in the order of priority set forth without making more than one installment payment in Priority 3 or 4 before proceeding on to make payment in priority 5 and 6. In other words, this

alternate interpretation suggests that if the net revenues have made a payment of a power installment within priority 3 and have gone on and made a payment of an irrigation installment in priority 4, it then must proceed on to a payment in priority 5 and even to priority 6 for that particular year if there is sufficient funds. In other words there could only be one payment of a priority 3 (power) installment in a year and only payment of a priority 4 (irrigation) installment in a yer even though there are many installments remaining to be repaid.

An illustration of that alternate method of repayment is illustrated in Table no. 15-2 entitled "Projection of Future Implementation of Repayment Contracts from Power Revenues, Alternate Method to Pay All Priorities Each Year."

The format of Table No. 15-2 is the same as in Table No. 15-1 in all respects except as to the sequence in which the net power revenues are applied in order of priority.

In each year there are sufficient net revenues to proceed to payment of unmatured power and unmatured irrigation installments. In 1986 a payment would be made of Installment No. 37 for power in priority 1 and Installment No. 37 for irrigation as priority 2. A payment of Installment No. 38 would be made for power in 1986 as a prepayment of power in priority 3 and a prepayment of Installment 38 for irrigation as priority 4. In subsequent years if installment payments are continued, none of the payments would be in priority 1 or priority 2 because all future installments would be prepaid.

Projection of Future [illegible]
Method to pay off 3rd & 4th Prio

Calendar Year	1 Est. Gross Power Revenue	2 Power System Operation and Maintenance: Est. Replacement of Existing Plant (Account R-700)	3 Power System Operation and Maintenance: Est. O&M (Account 700)	4 Power System Operation and Maintenance: Est. Total O&M (2+3)	5 Est. Power System Extension and Improvement (Account 470)	6 Total Net Power Revenues (1-4-5)	7 Balance from Prior Year	8 Accum. Net Power Revenue (6+7)	9 Maturing Installment Due Date	10 Installment No.	11 Mat Ins P S
								Balance owed U.S. on 1-1-85			
								Recommend repayment of $680,000			
								Balance which would be owed at			
1985	$8,727	$500	$6,207	$6,707	$400	$1,620			1-1-86	37th	
			Deferred Irrig. Payments			· 680					
						940		$ 940			
1986	9,608	700	7,113	7,813	500	1,295			1-1-87		
				Emergency Reserve		· 330					
						965	56	1,021			
1987	10,336	900	7,472	8,372	700	1,264			1-1-88		
				Emergency Reserve		· 330					
						934	161	1,095			
1988	10,978	1,100	7,834	8,934	800	1,244			1-1-89		
				Emergency Reserve		· 330					
						914	249	1,163			
1989	10,755	600	8,253	8,853	1,000	902	44	946	1-1-90		
1990	11,156	600	8,657	9,257	1,000	899	298	1,197	1-1-91		
1991	11,704	600	9,100	9,700	1,100	904	279	1,183	1-1-92		
1992	12,177	600	9,579	10,179	1,100	898	37	935	1-1-93		
1993	12,834	700	10,056	10,756	1,200	878	170	1,048	1-1-94		
1994	13,324	700	10,573	11,273	1,200	851	0	851	1-1-95		
1995	14,268	800	11,112	11,912	1,500	856	0	856	1-1-96		
1996	14,836	800	11,673	12,473	1,500	863	0	863	1-1-97		
1997	15,415	800	12,254	13,054	1,500	861	0	861	1-1-98		
1998	16,056	800	12,883	13,683	1,500	873	0	873	1-1-99		
1999	16,824	900	13,537	14,437	1,500	887	0	887	1-1-2000		

Table 15-1

ATHEAD INDIAN IRRIGATION PROJECT
lementation of Repayment Contracts from Power Revenues
4th Priorities before Paying on 5th & 6th Priorities
(in Thousands)

D	11	12	13	14	15	16	17	18	19	20	21
			Priorities of Application of Net Power Revenues								
tall-ent No.	Matured Installment Power System Paid	Matured Installment Irrigation System Paid	Non-Indian Prepaid Construction Cost Credit	Irrigation O&M Credit for Indian-owned Land	Installment No.	Unmatured Installment Power System	Unmatured Installment Irrigation System	Deferred Cost of Irrigation Construction on Indian-owned Land	Annual O&M Costs of Irrigation System	Total Installment Payments from Net Power Revenue	Remaining Net Power Revenues after Installment Payments
1-85						2,277	5,547	1,010			
$680,000 deferred on Irrigation Construction Costs							- 680				
ued at end of 1985						2,277	4,867	1,010			
th	$211	$212		$22 + 22	38th	$205	$212			$884	$ 56
				22	39th	198	212				
				22	40th	194	212			860	161
				22	41st	191	212				
				22	42nd	187	212			846	249
				22	43rd	172	212				
				22	44th	139	212				
				22	45th	106	212			1,119	44
				22	46th	95	212				
				22	47th	85	212			648	298
				22	48th	76	212				
				22	49nd	71	212				
				22	50th	69	212			918	279
				22	51st	68	212				
				22	52nd	53	212				
				22	53rd	49	212				
				22	54th	40	212			1,146	37
				22	55th	30	212				
				22	56th	22	212				
				22	57th	11	212			765	170
				22	58th	4	212				
				20	59th	1	203				
				0	60th	0	0	586		1,048	0
				0		0	0				
				0		0	0				
				0		0	0	424	427	851	0
				0		0	0	0	856	856	0
				0		0	0	0	863	863	0
				0		0	0	0	861	861	0
				0		0	0	0	873	873	0
				0		0	0	0	887	887	0

Table 15-2
NDIAN IRRIGATION PROJECT
ion of Repayment Contracts from Power Revenues
to Pay All Priorities each Year
(in thousands)

9	10	11	12	13	14	15	16	17	18
Priorities of Application of Net Power Revenues									
Matured Install-ment Power System Paid	Matured Install-ment Irrigation System Paid	Non-Indian Prepaid Construc-tion Cost Credit	Irrigation O&M Credit for Indian-owned Land	Install-ment No.	Unmatured Install-ment Power System	Unmatured Install-ment Irrigation System	Deferred Cost of Irrigation Construc-tion on Indian-owned Land	Annual O&M Costs of Irrigation System	Total Install-ment Payments from Net Power Revenues
					2,277	5,547	1,010		
) deferred on Irrigation Construction Costs						- 680			
end of 1985					2,277	4,867	1,010		
$211	$212		$22 + 22	38th	$205	$212	$ 56	0	$ 940
			22	39th	198	212	533	0	965
			22	40th	194	212	421	7	934
			22	41st	191	212	0	489	914
			22	42nd	187	212		481	902
			22	43rd	172	212		493	899
			22	44th	139	212		531	904
			22	45th	106	212		558	898
			22	46th	95	212		549	878
			22	47th	85	212		532	851
			22	48th	76	212		546	856
			22	49th	71	212		548	863
			22	50th	69	212		558	861
			22	51st	68	212		571	873
			22	52nd	53	212		600	887
				Balance owed on 1-2-2000	157	1,475			

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FLATHEAD INDI

Projection of Future Implementatio

Alternate Method to

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Calendar Year	1 Est. Gross Power Revenue	2 Power System Operation and Maintenance: Est. Replacement of Existing Plant (Account R-700)	3 Power System Operation and Maintenance: Est. O&M (Account 700)	4 Est. Total O&M (2+3)	5 Est. Power System Extension and Improvement (Account 470)	6 Total Net Power Revenues (1-4-5)	7 Maturing Install-ment Due Date	8 Install-ment No.	Ma In P S
						Balance owed U.S. on 1-1-85			
						Recommend Repayment of $680,000 d			
						Balance which would be owed at en			
1985	$ 8,727	$500	$6,207	$6,707	$400	$1,620	1-1-86	37th	$
				Deferred Irrig. Payments		- 680			
						940			
1986	9,608	700	7,113	7,813	500	1,295	1-1-87		
				Emergency Reserve		- 330			
						965			
1987	10,336	900	7,472	8,372	700	1,264	1-1-88		
				Emergency Reserve		- 330			
						934			
1988	10,978	1,100	7,834	8,934	800	1,244	1-1-89		
				Emergency Reserve		- 330			
						914			
1989	10,755	600	8,253	8,853	1,000	902	1-1-90		
1990	11,156	600	8,657	9,257	1,000	899	1-1-91		
1991	11,704	600	9,100	9,700	1,100	904	1-1-92		
1992	12,177	600	9,579	10,179	1,100	898	1-1-93		
1993	12,834	700	10,056	10,756	1,200	878	1-1-94		
1994	13,324	700	10,573	11,273	1,200	851	1-1-95		
1995	14,268	800	11,112	11,912	1,500	856	1-1-96		
1996	14,836	800	11,673	12,473	1,500	863	1-1-97		
1997	15,415	800	12,254	13,054	1,500	861	1-1-98		
1998	16,056	800	12,883	13,683	1,500	873	1-1-99		
1999	16,824	900	13,537	14,437	1,500	887	1-1-2000		

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Turning to example on Table No. 15-2, in 1986 it is anticipated there will be $940,000 net revenues at the beginning of the year. This would be sufficient to pay Installments No. 37 of both under priority 1 and irrigation under priority 2 and the Indian irrigation O&M credit. In addition there would be remaining sufficient net revenues to repay Installments No. 38 for both power as priority 3 and irrigation as priority 4 and the Indian irrigation O&M credit. It is estimated there would also be $56,000 of net revenues left in 1986 which would be applied to priority 5, the deferred cost of irrigation construction on Indian land.

In each succeeding year one priority 3 power installment and one priority 4 irrigation installment would be made insasmuch as no payments qualify as priority 1 or 2. The remainder of net revenues would be applied next to the deferred cost of irrigation construction on Indian land without limit because there is no limit in Section 2(h) of the 1948 Act as to how much payment be applied to priority 5. By about year 1988 all the deferred cost of irrigation construction cost on Indian land will have been paid off to a total of $1,010,000.

By about Year 1989 the only priorities remaining in which payments are called for would be in priority 3, 4 and 6. In 1989 there would be one prepaid installment to priority 3 for power in the amount of $191,000, and one prepaid installment to priority 4 for irrigation estimated at $212,000, and all the excess net revenues in the amount of $489,000 would be applied to irrigation operation and maintenance.

In the following years the bulk of the net revenues would go to irrigation O&M. The remaining power construction cost obligations would not be paid off until year 2007. The remaining irrigation construction cost obligations would not be paid off until 2032, only one year ahead of the schedule as it would otherwise have been.

It is concluded that this alternate method does not appear to accomplish the intent of the 1948 Act for repayment of the construction obligations. It is recommended that this alternative method not be followed.

Conclusions

1) Gross revenues from sales of power to customers of FIIP power in 1985 are sufficient to meet 1985 operating requirements and provide sufficient additional net power revenues to repay deferred matured irrigation installments of irrigation construction costs, which are about $680,000, and to pay Installment No. 37 of power and Installment No. 37 for irrigation which are due on January 1, 1986, and to prepay Installment No. 38 for both power and irrigation which would otherwise be scheduled for payment on January 1, 1987. If paid these would be the first prepayments of installments ever made in FIIP history.

2) For 1986 the operation and maintenance costs of the Power Division will increase because of the increased cost of the low-cost block of power furnished from Montana Power Company, as provided in the FERC license for relicensing of Kerr Dam. Also, certain other O&M costs should increase

because of the need to implement an immediate program to correct certain technical deficiencies in the power system. There is also a need to develop an Emergency Reserve. To meet these additional needs, the gross power revenues will need to be increased, or a review of priorities as to what payments or actions should be done.

3) It is recommended that the net power revenues be applied to payment of the purposes listed in the order of priority of Section 2(h) of the 1948 Act by paying priority 3 unmatured power installments and priority 4 unmatured irrigation installments until said obligations are repaid in full before applying net revenues to payment of priority 5 and 6 items.

4) If this method of repayment is used, and if rates are set to yield net power revenues at the upper limit permitted, the repayment capacity is sufficient to pay off the remaining obligation of power system construction costs and irrigation system construction costs by about year 1994, and to repay the deferred irrigation construction costs on Indian land by about 1995.

5) If the alternate method of applying the net revenues to the payment of the several priorities by applying payment to one priority 3 prepaid power installment and one priority 4 prepaid irrigation installment in each year and all remaining net revenue in that year to priorities 5 and 6, the result will be that the remaining obligation of power system construction costs will not be repaid until year 2007 and the irrigation construction costs will not be repaid until year 2032.

Chapter 16

RETAIL ELECTRIC RATE SCHEDULES AND RULES

Background

For many years in the 1950's and 1960's the average cost of electricity to customers of the FIIP power system was very stable. Table No. 16-1 shows the total electric sales, the electric operating revenues, and the average retail sales prices for power from the Project power system by years from 1957 through 1984.

In the years to 1967 power for FIIP was obtained from Montana Power Company at the Kerr Substation. FIIP also started receiving power from Bonneville Power Administration on August 1, 1967, when FIIP requirements had begun to exceed the amount Montana Power Company was committed to make available to FIIP. At that time the average unit price being charged by the Project to customers of its power system was about 14.5 mills per killowatt-hour.

The price FIIP charged its customers began to increase noticably in 1976 and 1977 when the average rate increased to 18.8 mills per kilowatt-hour which is about 30 percent.

From 1981 to 1983, the average rate jumped from 18.8 mills per kilowatt-hour to 29.74 mills per kilowatt-hour, an increase of 58 percent. In 1984 FIIP again increased its rates, the average going from 29.74 mills per Kilowatt-hour to 38.9

mills per kilowatt-hour, which was another 31 percent. In other words, the average retail electric rate went from 14.5 mills in 1975 to 38.9 mills per kilowatt-hour in 1984, an overall increase of 168 percent.

Many of the reasons for these increases have been well known, especially the substantial increases made by Bonneville because of commiting itself to thermal sources of power which would be considerably more expensive than the older major hydroelectric sources of power.

However, it is believed that further major increases in rates by Bonneville in the near future should be moderate.

Nevertheless, one additional substantial change affecting the cost of FIIP power supply is the price increase which went into effect on September 5, 1985, for the block of low-cost power delivered to FIIP by Montana Power Company from the Kerr Substation because of the relicensing of Kerr Dam. The price of the block of power had been an average of 1.58 mills per kwh, for 46 years from 1939 to 1985. The new price starts at 12 mills per kwh in September 1985. The increase in the cost to the Power Division of the purchased power will be about $840,000 in the first year. This does not include the increase in cost to the Irrigation Division for the power for the project pumping plant. There has not been any change in FIIP's retail rates to reflect this cost increase.

Future Projection of Power Revenues

Upper Limit of Net Revenues

The upper limits of the net power revenues which can be obtained from retail sales are specified by Section 2(g) of the Act of May 25, 1948 (62 Stat. 269). These are limited by a measure of three things; first, the annual maturing installment to repay the United States for the power system construction costs; second, a reasonable return on the remaining unliquidated amount owed on the construction costs of the power system, and third, the amount which the low-cost power sold could yield as the difference between its wholesale value and its cost. These items are tabulated in Table 13-6 of Chapter 13.

In addition to the net revenues, FIIP is authorized to charge for the operation and maintenance costs of the power system, and for appropriate reserves for emergencies, and for extensions and improvements of the system. The projections of all these are shown on Table 14-8 entitled "Projection of Upper Limit of Net Revenues and Projected Gross Revenues." These are the total amounts which are appropriate to include in the amount to be raised by rates for retail sale of power plus miscellaneous revenues.

Estimated Power Sales on Power System

The load on the power system is expected to grow in future years at a rate of 2.07 percent per year compounded. This is a reduced rate of growth from what the FIIP power system had experienced for a long period of years. The much-increased cost of power in the last few years has resulted in more conservative use of power

by customers; it is expected that a reduced rate of power use will continue resulting in the lower growth rate estimated at 2.07 percent per year.

The development of the estimate of future power sales is shown on Table 16.2. The projected future amount of power sales in kilowatt-hours is shown in Column 4. The gross revenues projected to be required as previously discussed are shown in Column 5. The average retail power rate which would be necessary to yield the gross revenues is shown at Column 6 of Table No. 16-2. In 1985 the average is estimated to be 38.98 miles per kwh.

The last full year of record was calendar year 1984 in which the average rate for all electric sales was 38.9 mills per kilowatt-hour.

For 1986, in which it is assumed that several major actions could be started to upgrade the power system as recommended herein, it is estimated that the average electric rate might have to be 42.0 mills per kwh, which would be an increase of 8 percent over what it was in 1984. The increase indicated as perhaps being necessary in future years from 1986 to 1999 to accomplish the upgrading in power system and repayment to the United States of power system and irrigation system construction costs which are recommended herein and to meet system costs would be of about 2.3 percent per year compounded, as shown on Table 16.2. At the same time, an improved planning procedure to develop a more cost-effective power system to reduce losses would partially offset some of the increased costs.

Effect if No Rate Change is Implemented

During 1984 and 1985 the cash balances of the FIIP power system have increased greatly. However, if the additional construction and upgrading of the system is started and other changes made as recommended, the additional cash flow necessary would rapidly deplete the fund balances, with the net revenues going to zero in 1987 or 1988 unless action is taken to adjust the electric retail rates. The average rates porojected are shown on Table 16-22.

Present Status of Rates

The rates that are presently in effect are those that were approved by the Area Director as a "pass-thru" increase to be able to meet the increased costs because of the substantial rate increase by Bonneville Power Administration, from which FIIP gets approximately two-thirds of its power.

As stated previously, the average amount paid by customers of FIIP in 1984 averaged 38.9 mills per killowatt-hour. This is substantially lower than those of the rural electric cooperatives generally in western Montana. The lowest rates in the general area next to those of FIIP are those of Pacific Power & Light Company in the Kalispell service area, but even those are some 10 percent higher than those of FIIP.

The present Project rates for these classifications representing the major amounts of power used are as follows:

	Rate Schedule	Cost per 1000 kwh
No. 1	General Service	
	Rural	$40.00
	Urban	38.00
No. 2	Large Commercial	37.33
No. 4.	Irrigation Pumping	31.67

Present Status of Rate Changes by FIIP

The electric retail rate schedules of FIIP remained constant for many years. However, especially because of the great changes in power costs in recent years, FIIP has changed its rates more than once in recent years.

The rate schedules and the accompanying rules are a part of federal regulations which are developed, promulgated and adopted through established federal procedures. They are published in the Federal Register and are incorporated into the Code of Federal Regulations (CFR). The present rates and rules for FIIP are Part 176 of Chapter 1 of Title 25 CFR.

FIIP has sent its proposed changes to the Portland Area Office, which in turn has sent them to the Central Office of the Bureau of Indian Affairs in Washington, DC, for review and approval.

It is understood the processing of a previous rate change took 18 months to be approved after it was submitted to the Area Office. A rule change is now in review which was submitted about two years ago. However, the present status appears to

be that the matter is on "hold" at FIIP for the time being until the results of this power study are known. The part which is on hold is only the portion in regard to rules regarding the operation of the power system and its relationship to its customers.

This study finds that the present rates were adopted in March 1984 by approval of the Area Director, by authority of Section 176.58 allowing him to act to adjust the rate schedules so as to pass through to the rate payers increases in costs of power purchased from the power suppliers of FIIP. Such a pass-through became necessary when Bonneville increased its rates.

The cash flow of revenues from the changes in electric rates, which were implemented in March 1984, is more than necessary to fund the activities of the Power Division at its present level of operation.

In both 1984 and 1985 there has been a substantial accumulation of net power revenues which has not been applied to the various purposes provided in Section 2(h) of the 1958 Act but instead has built up in the reserves of FIIP. This was covered in detail in previous chapters of this report.

There are however, rule changes which have been proposed and are pending. These rule changes are desired by FIIP to improve its procedures for dealing with its electric customers, especially in regard to customer deposits.

This matter has been investigated as a part of this study and it finds there are two basic problems and deficiencies at present in regard to the procedure being used. First, the proposed rule changes were not well-prepared when submitted nor was there satisfactory explanatory material to support the proposed changes and second, the Bureau of Indian Affairs does not have a person or persons in its Area Office or in the Central Office who are experienced or well-qualified in electric power and utility operation so as to adequately review and advise its senior officials and FIIP regarding the technical aspects of this field of operation.

Present Electric Rate Schedules

The rate schedules which were prepared and have been implemented (not referring to other rules, but just the rate schedules) have been well-developed to conform to the newer policies passed by Congress to encourage the reduction of waste in the use of energy and also to spread equitably the cost of electric power and energy between the various classes of electric use.

However, no material has been available that clearly supports the rates which were adopted as to the overall level of revenues which would be yielded to FIIP to meet its current level of operations and repayments to the United States.

Future Rate Changes

A rate increase will be necessary to undertake the upgrading of the power system which was discussed in Chapter 3 and 4 of this report. However, such a rate increase must be closely tied with the short-term and long-range planning, with the

budget development process, with purchasing of material and equipment, and the other financial needs of FIIP such as repaying the United States the power and irrigation construction costs. In fact the rate-setting should be the last of all those coordinated functions. At the present these several functions do not appear to be well-cordinated.

Rules Changes

The present rules governing the relationships of FIIP to its customers are not especially well-adapted to the present-day practices which have been generally accepted in the electric utility field.

Although the power system of FIIP is owned and operated by the United States, nevertheless, it is an electric utility serving almost 14,000 retail customers. It should conform to modern standards in dealing with its customers. The present rules have many shortcomings in that respect, although those presently being proposed are improved in some regards.

The rules changes which were submitted for approval are loose as to the authority of the Project Engineer. They are loose amd vague as to the range of discretion with which the Project Engineer or his delegated person may treat individual consumers under similar circumstances.

Setting of Rates - Public Notice and Hearings

When FIIP is proposing a change in rates it should provide advance public notice through newspapers of general circulation in the local area, and should

provide the information to each customer such as with its regular billing. Publishing in the Federal Register serves one need, but informing the customer is also important.

Provision should be made for a public hearing in the service area to allow affected persons to be fully heard. An affected person or persons should be allowed to be heard, either by the person, or through an organization or through counsel if the person so desires.

It might be preferable for the hearings to be conducted by a person or persons in the nature of a hearing officer who is experienced in utility operations but who is not directly involved in the setting of the rates for FIIP if there is strong consumer participation.

There are several alternatives which could be made to work well for conduct of a public hearing, as follows:

1. The Area Director furnishing a qualified person in the nature of a hearing officer retained under contract or through other normal procedures.
2. Through Memorandum of Understanding furnish a hearing officer from an agency such as:

    a) Rural Electrification Administration
    b) Federal Energy Regulatory Commission
    c) Montana Public Service Commission

The report of the hearing officer would be in the nature of impartial findings because such a person would not have decision-making responsibility. It is

suggested however, that the Project Engineer be required to submit to the Area Director comments as to any changes he proposes that are at variance with the report of the hearing person or persons.

Resolution of Disputes and Complaints

The present and proposed procedures for handling disputes are less than the minimum which should be available to a customer. If the dispute or complaint is regarding a significant matter, which could be defined, such as charges on rates, unreasonable discrimination, questionable utility practices, or inadequate service or termination of service, a public hearing should be provided by the Project Engineer or by the Area Director if an appeal is made to the Area Director on which no hearing was held.

The rule presently provides and the proposed rule provides that an appeal from a decision of the Project Engineer must be filed by the aggrieved person with the Deputy Assistant Secretary of the Interior for Indian Affairs. The processing of an appeal should be to someone closer in supervision to FIIP. It is recommended that this be by the Area Director together with a public hearing if requested by the aggrieved person, using a hearing procedure as discussed previously above. Otherwise a customer may be subject to adverse dedcisions without any due process of law.

Customer Deposits

The new proposed rule change which is pending on the subject of "Deposits," proposed Section 176.6, is an improvement over the present rule, to remove the

discrimination between the residence owner and tenant as to deposits.

There is not an adequate definition of what is meant by "customers who have not established a good credit rating with the Project." The present language is susceptible to being applied quite differently between people perhaps unjustly. It is recommended that FIIP consider using the factors regarding credit rating which are listed in the Administrative Rules of Montana adopted by the Montana Public Service Commission.

The present refunds of deposits now are in part at the discretion of the Project Engineer. It is recommended that the rule be made specific that the refunds shall be made when the customer has made payments satisfactorily and has requested the refund.

Deposits should be made readily transferable in the case where a customer moves to a new location and a deposit is required for that customer in the new location if the customer has satisfactorly paid the amounts due at the previous location.

Rights-of-Way

The present rule and the proposed each rule require that the customer will obtain the needed right-of-way for a line extension. The proposed rule has two requirements, one at Section 176.7(a) and one at Section 176.8. The former also adds the requirement that the customer shall clear the rights-of-way without cost to FIIP. The rights-of-way will then belong to FIIP.

It has long been the normal practice in the electric utility field that the utility obtains and owns the rights-of-way for power lines. However to make it possible for utilities to build the lines which are required to provide needed service to the public, the law, in many states, has authorized utilities to condemn rights-of-way if they are essential to the public service. On the other hand a potential customer who is seeking electric service requiring a line extension over the lands of others can be easily frustrated in obtaining the right-of-way.

It is recommended that FIIP revise its practice to find a way for FIIP itself to acquire rights-of-way for new lines rather than the customer. Close coordination with the Confederated Tribes is needed to resolve how this can best be done across tribal lands.

Discontinuance of Service

Discontinuance of service is one of the tough problems faced by electric utilities, especially in cases where there are special situations of ill health, or severe weather. Neither the the present nor the proposed rule on discontinuance of service, proposed as Section 176.16, gives proper consideration to providing due process in the notice of a customer who is subject to discontinuance of service. A provision should be included in the rules requiring the project to exercise diligence in contacting the customer in person or by telephone to insure that the customer is aware of the action to be taken. Also when first becoming a customer the person be furnished with the fules which relate to discontinuance of service.

Table No. 16-1

FLATHEAD INDIAN IRRIGATION PROJECT

Electric Sales, Electric Operating Revenue, and Average Retail Price

Year	Total Electric Sales kwh	Total Electric Operating Revenue $	Average Unit Sales Price mills/kwh
1958	39,795,803	$747,183.81	18.78
1959	48,746,522	807,452.94	16.56
1960	54,078,942	871,498.86	16.12
1961	59,662,103	956,248.57	16.03
1962	64,461,358	1,025,375.22	15.91
1963	69,626,474	1,106,877.92	15.90
1964	73,306,441	1,159,576.75	15.82
1965	76,844,118	1,213,445.64	15.79
1966	83,486,846	1,290,699.36	15.46
1967	87,246,442	1,289,157.90	14.78
1968	89,544,264	1,273,051.57	14.22
1969	99,678,969	1,407,280.51	14.12
1970	98,325,037	1,416,829.22	14.41
1971	110,353,866	1,563,819.72	14.17
1972	122,306,211	1,736,636.55	14.20
1973	129,228,307	1,830,097.66	14.16
1974	133,075,154	1,910,719.78	14.36
1975	143,983,759	2,088,409.12	14.50
1976	150,091,248	2,673,996.53	17.82
1977	162,057,402	3,003,050.48	18.53
1978	171,660,180	3,235,239.34	18.85
1979	196,729,610	3,609,091.47	18.35
1980	185,114,324	3,512,978.59	18.98
1981	193,103,438	3,639,559.45	18.85
1982	216,226,818	4,233,492.85	19.58
1983	204,552,920	6,083,038.35	29.74
1984	222,646,973	8,661,347.15	38.90

Table 16-2

FLATHEAD INDIAN IRRIGATION PROJECT

Projection of Potential Future Retail Power Rates
at Rate-Setting Upper Limits
and to Accomplish Power System Upgrading

Year	1 Projected Power into System (Less Pumping Plant Use)(1) 1000 kwh	2 Less Power Division Plant Use (2) Non-sale) 1000 kwh	3 Trans-mission and Line Losses 10% 1000 kwh	4 Projected Power Sales by Power Division 1000 kwh (1-2-3)	5 Upper Limit Gross Revenues $	6 Projected Average Retail Power Rate mills/kwh (4x5)
1985	249,424	580	24,942	223,902	$8,727,000	38.98
1986	254,587	592	25,459	228,536	9,608,000	42.04
1987	259,857	604	25,986	233,267	10,336,000	44.31
1988	265,236	617	26,524	238,095	10,978,000	46.11
1989	270,727	630	27,073	243,024	10,755,000	44.25
1990	276,331	643	27,633	248,055	11,156,000	44.97
1991	282,051	656	28,205	253,190	11,704,000	46.23
1992	287,889	669	28,789	258,431	12,177,000	47.12
1993	293,849	683	29,385	263,781	12,834,000	48.65
1994	299,931	697	29,993	269,241	13,324,000	49.49
1995	306,140	712	30,614	274,814	14,268,000	51.92
1996	312,477	727	31,248	280,502	14,836,000	52.89
1997	318,945	742	31,894	286,309	15,415,000	53.84
1998	325,547	757	32,555	292,235	16,056,000	54.94
1999	332,286	773	33,229	298,284	16,824,000	56.40

Notes:

(1) Assumes load growth at 2.07 percent per year compounded.

(2) Assumes load growth of Power Division internal plant use at 1 percent per year compounded.

CHAPTER 17

MISCELLANEOUS

Boundary of Service Area

The possible extension of service to Coca Mines to be located outside of the present service area and north of the Flathead Indian Reservation has raised the question of what should be the extent of the service area of the power system of the Flathead Indian Irrigation Project.

The Power Superintendent made available a benefit/cost analysis of serving the Coca Mines. It showed a proposed allocation and contribution of costs by the Coca Mines that provides much of the funds for a major power line into that area

Electrically the new line would serve to strengthen service in the northwesterly part of the reservation and add facilities for some area not now served.

However, the question is still there as to whether the power system should serve outside the limits of the reservation.

There has been service outside the reservation from time to time in the historical past such as when the Project made available some of its block of low-cost power for the construction of Hungry-Horse Dam in the early 1950s. The Project does and has served for some time in the Lake Mary Ronan area immediately north of

the reservation west of Flathead Lake, because of an arrangement years ago to take over a then existing cooperative.

It is understood that there is no specific legal mandate against serving outside the reservation in any of the laws passed by Congress regarding the Flathead Indian Irrigation Project.

There are, however, two matters for consideration. At the time the Act of March 1928 was passed authorizing that a license be issued for construction of Kerr Dam, Congress included a provision that the license should be subject to conditions included by the Secretary of the Interior. The 1928 Act also authorized a previous appropriation to be used for construction of power lines for the Project.

When the license was issued in 1930 for construction of Kerr Dam, one of the provisions included by the Secretary of the Interior was that the United States reserved the exclusive right to sell power within the Flathead Reservation up to 10,000 horsepower. The new license issued in 1985 for the relicensing of Kerr Dam included a similar article.

The Secretary of the Interior does not appear to have broadened his interest in serving an additional area, at least as far as the Kerr Dam relicense is concerned. Likewise the amount of power which the Secretary included when he reserved the exclusive right to sell power on the reservation was 10,000 horsepower. That amount is now being exceeded about nine times over on a peak basis and about four times over on an average basis..

The invasion of a service area of another utility is viewed with extreme concern in the field of electric utilities, because it causes considerable uncertainty as to the financial capability in the future of the area being encroached upon. The area where Coca Mines was to be located shows on pertinent maps of the State of Montana and of Bonneville Power Administration to be considered a part of the service area of Pacific Power and Light Company (Pacific).

As a part of this review I contacted the Executive Vice President of Pacific to determine the status and interest of that company to serve the subject area. He investigated and advised that Pacific had been and is prepared to serve that area and had funds budgeted for the construction.

Although it is understood that the Project is not subject to those utility service laws of the State of Montana, it should be noted that Montana has the "Territorial Integrity Act of 1971, (Montana Codes Annotated, 69-5-101 et seq)" the purpose of which is to try to protect the service areas of utilities from encroachment by others.

As a matter of financial need, the Project does not have to serve the Coca Mines to maintain its financial ability, which has been discussed in this report.

It is recommended that, as a matter of policy, the Project not extend its service into new areas outside the boundaries of the Flathead Indian Reservation.

Transfer of Operation and Maintenance of Project

There are several organizational structures in which the power system could be operated effectively as an electric utility within the intent of the 1948 Act or otherwise.

From the standpoint of obtaining or developing the most effective power utility operating organization, the highest priority should be to develop adequate long-range planning together with short term work plans, together with the concomitant budgeting, development of acquisition plans and the purchasing of associated equipment and material, together with rate-setting to insure the necessary flow of funds. The coordinated development of these functions should be a higher priority than transfer of the organization unless more effective support in personnel acquisition and purchasing can be provided in another organization at an earlier date.

Alternative Organizations

1) Transfer of the Power Division to the supervision and control of the irrigation water users would tend to create an incentive for the electric power rates to be held as high as possible to pay as much of the irrigation O&M costs as they can. This would be adverse to the growing interest of the electric consumers served by the power system, but it is hard to judge how much a problem might be created by this. This would

be a valid argument against placing the operation of the power system together with the irrigation users in event of a transfer.

2) A second option would be to transfer the Power Division to the Confederated Salish and Kootenai Tribes to operate and maintain. There will be an incentive for the Confederated Tribes to become experienced and proficient in the electric power field because they will have much at stake when the time comes to take over the Kerr Dam and generating plant. At that time if they have developed experience being already in power and power utility operation it should make the Tribes' role as the owner of a major hydroelectric project easier to take on.

Also there are still other potential major hydroelectric developments remaining on the Flathead Reservation. The Confederated Tribes have indicated one of their goals is to manage and control the tribal resources on the Flathead Reservation. There is incentive to optimize these resources if at some time in the future other hydroelectric plants are found to be feasible.

3) A third option is transfer of operation and maintenance of the power system to some entirely separate organization such as:

   a) Establish a REA cooperative with separately-elected Board of Directors.

   b) Sell the power system to an electric utility.

In any one of the above alternatives there are several underlying questions to be settled regarding the power system.

1) Water rights for bargain power
2) Repayment to United States of remaining obligations
3) Financial obligation from power revenues to irrigation
4) Authority of the United States to serve power on the entire Flathead Reservation.

Continuing Federal Responsibility as Owner of Facilities and as Trustee

In the case either of projects which have been turned over to local operation or those projects which are still being operated by federal employees, there is an important need for maintaining a supervisory responsibility to ensure that the projects are being properly maintained and operated. There are several such supervisory programs as follows:

1) The U. S. Bureau of Reclamation has a good program of regular periodic inspections by well-qualified teams. The teams thoroughly review the projects as to appropriate and adequate operation and maintenance, so as to keep the project and facilities in proper condition.

2) The Federal Energy Regulatory Commission has inspection teams that regularly inspect all the hydroelectric projects which are licensed by FERC and which are under their jurisdiction. These inspections are useful and effective

as a check on the adequacy of operating and maintenance programs by the owners or licensees. Reviews also checks on the safety of dams.

In like manner the BIA should without delay institute a similar inspection program of the Indian irrigation projects under its jurisdiction. These should be thorough reviews every two or three years, no longer, to ensure the projects are being well-maintained and operated. It is likely the BIA does not have a qualified team to inspect a power system, but a Memorandum of Understanding could be developed with a federal or state organization with some of that capability. A more effective solution would be to contract for a team of consulting engineers experienced in electric utility operation to conduct such inspection programs.

It is recommended that such a regular periodic inspection program be authorized and implemented at an early date, most particularly as to the power aspects of the Flathead Indian Irrigation Project. The BIA has some other power-related Indian irrigation projects which without doubt would also benefit greatly from such a program.