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REPORT TO THE CONGRESS

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Southwestern Federal Power Program--Financial Progress And Problems B-125031

Department of the Interior
Department of the Army

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

NOV. 22, 1972

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

B-125031

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

This is our report on financial progress and problems of the Southwestern Federal Power System. Administration of activities discussed in this report is the responsibility of the Department of the Interior and the Department of the Army.

Our review was made in accordance with the provisions of the Budget and Accounting Act, 1921 (31 U.S.C. 53), as amended, and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of the report are being sent to the Director, Office of Management and Budget; the Secretary of the Interior; the Secretary of the Army; the Chairman, Tennessee Valley Authority; the Chairman, Federal Power Commission; and the Chairman, President's Water Resources Council.

A handwritten signature in cursive script that reads "James B. Stacks".

Comptroller General
of the United States

C o n t e n t s

		<u>Page</u>
DIGEST		1
CHAPTER		
1	INTRODUCTION	5
2	OPERATING RESULTS	8
	Potential for further improvement in SPA's operations	9
	Recommendation to the Secretary of the Interior and the TVA Board of Directors	12
	Agencies' comments	12
3	STATUS OF REPAYMENT OF REIMBURSABLE COSTS FROM POWER REVENUES	14
	Weaknesses inherent in rate and repay- ment studies	14
	Deficiencies in projecting system costs and revenues	18
	Projected interest expense under- stated about \$230 million	18
	Federal investment understated	21
	Provision for replacing transmis- sion facilities not identified	21
	Transmission costs duplicated	22
	Recommendation to the Secretary of the Interior	23
	Agencies' comments	23
	Need for improved reporting on status of repayment	25
	Recommendation to the Secretary of the Interior	26
	Agencies' comments	27
4	FACTORS AFFECTING RATE AND REPAYMENT STUDIES INCLUDED IN PRIOR GAO REPORT	29
	Need to firm up cost allocations	29
	Recommendation to the Secretaries of the Interior and the Army	29
	Agencies' comments	30

CHAPTER	<u>Page</u>
Cost of space furnished by the General Services Administration not included in financial statements	30
Agencies' comments	31
Recommendation to the Secretary of the Army	32
5 SCOPE OF REVIEW	33
6 OPINION OF FINANCIAL STATEMENTS	34
 EXHIBIT	
1 Statement of commercial power revenues and expenses for the fiscal years ended June 30, 1970, and June 30, 1969	35
2 Statement of assets and liabilities of the commercial power program as of June 30, 1970 and 1969	37
3 Statement of source and application of funds of commercial power program for fiscal year ending June 30, 1970	38
 SCHEDULE	
A Statement of fixed assets of the commercial power program as of June 30, 1970	39
 APPENDIX	
I Status of repayment based on compound interest amortization of commercial power investment, June 30, 1970	47
II Letter dated July 26, 1972, from the Director of Survey and Review, Department of the Interior, to the General Accounting Office	48

APPENDIX

Page

III	Letter dated May 15, 1972, from the Deputy Assistant Secretary of the Army (Installation and Logistics) to the General Accounting Office	56
IV	Letter dated April 21, 1972, from the Chairman, Federal Power Commission, to the General Accounting Office	58
V	Letters dated March 15, 1972, and May 4, 1972, from the Manager of Power, Tennessee Valley Authority, to the General Accounting Office	61
VI	Principal officials of the Department of the Interior and the Department of the Army responsible for the administration of activities discussed in this report	63

ABBREVIATIONS

GAO	General Accounting Office
GSA	General Services Administration
SPA	Southwestern Power Administration
TVA	Tennessee Valley Authority

D I G E S T

WHY THE REVIEW WAS MADE

In 1968 the General Accounting Office (GAO) reported that the Southwestern Federal Power System had an accumulated net loss of about \$56.5 million from commercial power operations through fiscal year 1967. A congressional committee was concerned about the system's ability to repay the Federal investment in the system within the required repayment period (50 years from the date the last power project in the system is placed in service). In December 1970 the Department of the Interior requested that GAO audit the system.

This review was made so that GAO could report on the financial statements for fiscal year 1970 and on the status of repayment of the Federal investment.

The Southwestern Federal Power System consists of projects constructed, operated, and maintained by the Corps of Engineers (Civil Functions), Department of the Army, and of the power-marketing operations of the Southwestern Power Administration, Department of the Interior.

OPINION ON FINANCIAL STATEMENTS

The Southwestern Power Administration amended the accompanying financial statements (exhibits 1 through 3) of the Southwestern Federal Power System for fiscal year 1970 for cer-

tain adjustments suggested by GAO, and therefore they differ from the statements issued previously by the Administration and submitted to the Congress.

Subject to effects, not now determinable, of future adjustments related to the adoption of firm cost allocations, the accompanying financial statements, in GAO's opinion, present fairly the assets and liabilities of the Southwestern Federal Power System at June 30, 1970, the financial results of its power operations, and the source and application of its funds for the year then ended, in conformity with accounting principles and standards prescribed for Federal executive agencies by the Comptroller General of the United States. These accounting principles and standards were applied on a basis consistent with that of the preceding period, except for the change, in which GAO concurs, to include in the financial statements the cost of space furnished to the Administration by the General Services Administration. (See p. 34.)

OTHER MATTERS OF INTEREST

Operating results

The system's operating results for the 3 years ended June 30, 1970, reduced the accumulated net loss of \$56.5 million at June 30, 1967, to \$52.2 million at June 30, 1970.

This improvement was due primarily to increased revenues resulting from (1) elimination of certain unfavorable contract provisions, (2) improvement of water conditions beginning in 1969 resulting from increased rainfall, and (3) addition of two new projects to the system--Keystone in May 1968 and Broken Bow in June 1970. (See p. 8.)

Financial statements for the system issued after GAO's field review showed that net income amounted to about \$4 million for fiscal year 1971. (See p. 9.) A potential for further improvement in operating results exists through exchange of additional power over a transmission line which connects the system with the Federal system in the Missouri River Basin. (See p. 10.)

In view of potential benefits, GAO believes that a study should be made to determine the feasibility of a power exchange between the systems of the Administration and the Tennessee Valley Authority. (See p. 10.)

Rate and repayment studies

At the end of fiscal year 1970, after 25 years into the repayment period, the Administration had not repaid any portion of the Federal investment in the system and was about \$29.7 million in arrears in meeting other costs. However, the Administration prepared rate and repayment studies which showed that the Federal investment in the system would be repaid within the required period. (See p. 14.) GAO's evaluation of the most current study, however, raised serious questions regarding its validity because of:

--Weaknesses inherent in development of the study as a result of the speculative nature of the long-

range cost and revenue projections. (See p. 14.)

--Deficiencies in projecting system costs and revenues. (See p. 18.)

If the study were revised to correct the deficiencies noted during GAO's review, it would show that the system's revenues would not be adequate at current rates to repay the Federal investment in the system within the required repayment period.

To reasonably measure the repayment status of the Federal investment in the system, GAO computed the repayment requirements under a compound-interest method. This requires the lowest repayment of the investment in the first year and progressively increases repayment in each succeeding year. Using this method, GAO found that the deficiency in repayment would have been about \$86.7 million at June 30, 1970. (See p. 25.)

Other problems which, if resolved, could have an effect on the amount of the system's costs to be repaid are the need to:

--Firm up tentative cost allocations. (See p. 29.)

--Further consider the practicability of recording, in Corps accounts, appropriate amounts for the cost of space furnished by the General Services Administration. (See p. 30.)

RECOMMENDATIONS

5 The Department of the Interior and the Tennessee Valley Authority 108 should study the feasibility of a power exchange between the two systems. (See p. 12.)

4 The Department of the Interior should instruct the Administration 17

to prepare and publish a revised rate and repayment study for the system, with the deficiencies noted by GAO corrected, to demonstrate whether the existing rate structure is adequate to recover the Federal investment in the system within the required repayment period. (See p. 23.)

The Administration should supplement rate and repayment studies with information designed to provide a basis for comparing actual repayments of the Federal investment with annually scheduled repayments established on an orderly basis. (See p. 26.)

The Departments of the Interior and the Army should take appropriate action to firm up tentative cost allocations. (See p. 29.) Also, the Corps of Engineers should further consider the practicability of recording space costs and allocating appropriate amounts of such costs to the system. (See p. 32.)

AGENCY ACTIONS AND UNRESOLVED ISSUES

The Department of the Interior and the Tennessee Valley Authority expressed doubts that an interconnection could be justified for exchange of power between the systems of the Administration and the Tennessee Valley Authority. They indicated, however, that they would be willing to study the matter further. (See p. 12.)

The Department of the Interior said that a revised rate and repayment study for the system would be prepared before expiration in 1974 of the current rate approval or sooner if significant changes in cost projections occur and that such a study

would be consistent with departmental policies, including those which bear directly on GAO's comments and recommendations. (See p. 23.)

The Department of the Interior said that the development of scheduled repayments of the Federal investment in the system for comparison with actual repayments was not considered necessary or desirable, particularly if it led to a conclusion that, all other variables held constant, power rates were too low.

GAO's recommended scheduling of the repayment of the Federal investment is designed to provide information to the Congress and management to assist them in evaluating the repayment status and is not intended to provide the sole basis for concluding whether rates are too low or too high.

GAO believes that such supplemental information should be prepared because it would be a useful adjunct to the system's rate and repayment studies in evaluating the status of repayment of the Federal investment. (See p. 27.)

The Departments of the Interior and the Army agreed that action should be taken to firm up tentative cost allocations. (See p. 30.)

The Department of the Army said that the administrative cost of determining the portion of the Corps' space cost to be allocated to the system could easily exceed the costs allocable for reimbursement; therefore, there is little merit in allocating costs of this type.

Subsequently, however, the Corps advised the Bonneville Power

Administration that it would begin to record such space costs applicable to the Federal Columbia River Power System in the Pacific Northwest.

In the interest of consistency, GAO believes that the Corps should further consider the practicability of recording space costs and allocating appropriate amounts to the Southwestern Federal Power System. (See p. 31.)

MATTERS FOR CONSIDERATION BY THE
CONGRESS

This report contains no recommendations or suggestions requiring action by the Congress. It is submitted to inform the Congress of the financial operations of the Southwestern Federal Power System and of GAO's recommendations for corrective actions.

CHAPTER 1

INTRODUCTION

The designation "Southwestern Federal Power System" is used to describe the Federal power system which encompasses certain hydroelectric generating facilities of the Corps of Engineers (Civil Functions), Department of the Army, and the power-marketing operations of the Southwestern Power Administration (SPA), Department of the Interior. Section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s) provides for electric power generated at Corps plants to be delivered to the Secretary of the Interior. The Secretary is required to establish rates to recover the cost of producing and transmitting power, including repayment of the Federal investment, over a reasonable period of years. Rate schedules become effective upon approval by the Federal Power Commission.

The Secretary has established a reasonable repayment period as being 50 years from the date a hydroelectric facility (project) is placed in service. Although the investment in each project is required to be repaid within 50 years, repayment of the Federal investment in the entire system will extend substantially beyond 50 years because projects are placed in service at various dates.

To determine whether power rates are adequate to recover the Federal investment in a system within the required repayment period, each Federal power agency generally prepares and publishes periodic consolidated rate and repayment studies covering all power projects in the system. These studies show actual costs and revenues for all projects through the current fiscal year and include projections of both estimated costs and revenues through the remainder of the repayment period.

Power system revenues generally are used first to repay funds appropriated by the Congress for operation and maintenance expenses and secondly to pay interest on the Federal investment. Any remaining revenues are used to repay the Federal investment and thus reduce the amount on which interest is computed the following year.

As of June 30, 1970, the Southwestern Federal Power System included 16 projects with hydroelectric facilities costing about \$438 million and having a capacity of 1,533,500 kilowatts. Seven other projects with hydroelectric facilities were under construction by the Corps; they will add a capacity of 597,200 kilowatts to the system at an estimated cost of about \$230.4 million.

The projects provide benefits, such as flood control, navigation, recreation, and water supply, in addition to power. This report, however, covers only those aspects of the projects concerned with the generation and marketing of power. Therefore further references in this report to a project refer only to the power purpose of the project.

The Corps constructs, operates, and maintains the projects making up the Southwestern Federal Power System through the following offices.

District offices

Division offices

Tulsa, Oklahoma
Little Rock, Arkansas
Fort Worth, Texas

Southwestern Division
Dallas, Texas

St. Louis, Missouri
Vicksburg, Mississippi

Lower Mississippi Valley Division
Vicksburg, Mississippi

Kansas City, Missouri

Missouri River Division
Omaha, Nebraska

The district offices are headed by Army officers (district engineers) who are under the general direction of division engineers. The division engineers are responsible to the Chief of Engineers, Washington, D.C.

SPA markets power in an area comprising all or portions of the States of Arkansas, Louisiana, Kansas, Missouri, Texas, and Oklahoma. SPA has constructed and operates and maintains about 1,620 miles of high-voltage transmission lines, 23 power substations, and 11 switching stations. The Federal investment in these facilities was about \$55.6 million as of June 30, 1970. SPA estimates that by fiscal year

1980 the Federal investment in such facilities will be about \$71 million.

The activities of SPA, which has its headquarters in Tulsa, are directed by an administrator under authority delegated by the Secretary of the Interior. The administrator receives direction from the Assistant Secretary of the Interior for Water and Power Resources.

Because of prior years' losses from the commercial power operations of the Southwestern Federal Power System, a congressional committee was concerned about the ability of the system to repay the Federal investment within the required repayment period. In December 1970, the Department of the Interior requested that we audit the system. Therefore we made this review to express an opinion on the financial statements for fiscal year 1970 and to inquire into the status of repayment of the Federal investment.

The financial statements included in this report, which were prepared by SPA, consist of consolidated information from the accounts and records of SPA and the Corps.

CHAPTER 2

OPERATING RESULTS

In our prior report on the "Examination of Financial Statements, Southwestern Federal Power System, Fiscal Year 1967" (B-125031, Dec. 19, 1968), we reported that the system had an operating loss of about \$4 million for fiscal year 1967 and an accumulated net loss of about \$56.5 million. Our current review showed that the accumulated net loss was reduced to about \$52.2 million at June 30, 1970, because, for fiscal years 1968 through 1970, the system's operating results had improved, as indicated below.

	<u>Fiscal year</u>			
	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
	----- (000 omitted) -----			
Total revenues	\$ <u>29,082</u>	\$ <u>32,820</u>	\$ <u>35,321</u>	\$ <u>34,841</u>
Costs:				
Operation and main- tenance expenses	5,280	5,539	6,254	7,101
Transmission serv- ice charges	5,347	5,422	4,732	4,711
Purchased power	8,944	7,022	6,002	7,215
Depreciation	2,075	2,174	2,337	2,480
Interest	11,468	11,699	12,470	12,665
Other deductions:				
Property losses (gains)	-	(5)	(6)	138
Miscellaneous ex- pense (gains)	<u>(9)</u>	<u>(6)</u>	<u>(5)</u>	<u>(8)</u>
Total costs	<u>33,105</u>	<u>31,845</u>	<u>31,784</u>	<u>34,302</u>
Net income or loss (-)	\$ <u>-4,023</u>	\$ <u> 975</u>	\$ <u>3,537</u>	\$ <u> 539</u>

The overall improvement in the system's operating results was due, in part, to increased revenues resulting from (1) elimination of certain unfavorable contract provisions, (2) improvement of water conditions beginning in 1969 resulting from increased rainfall, and (3) addition of

two new projects to the system--Keystone in May 1968 and Broken Bow in June 1970.

SPA in 1969 identified eight contracts for the sale of power which included unfavorable provisions that resulted in less net revenue per kilowatt-hour than SPA was receiving from other customers. The revenue loss amounted to about \$6.4 million a year and through fiscal year 1970 totaled about \$67 million.

These losses resulted from contract provisions which provided for (1) excessive and inequitable credits to customers for performing services for the Government, (2) sale of power at low rates to support a defense industry, and (3) SPA's purchase of off-season power which it had not been able to market. SPA has made a concerted effort to alleviate some of these problems, has increased power rates applicable to some of its contracts, and has entered into negotiations for establishing more equitable rates in others.

An increase in the operation and maintenance expenses has offset some of the increase in the system's operating revenues. These expenses increased from \$5,280,000 in fiscal year 1967 to \$7,101,000 in fiscal year 1970, an increase of \$1,821,000. Major factors contributing to the increased expenses were (1) increases in employees' salaries at both SPA and the Corps, (2) the cost of establishing a reservoir control center at Fort Worth to control water releases, and (3) substantial repair costs incurred at some projects.

SPA issued financial statements, after completion of our field review, showing that net income had increased to about \$4 million for fiscal year 1971. The statements indicate, however, that a large part of the increase represents amounts due SPA from a power rate increase which is in litigation.

POTENTIAL FOR FURTHER IMPROVEMENT IN SPA'S OPERATIONS

SPA has entered into an agreement which provides for an exchange of power over a transmission line between the Southwestern Federal Power System and the Missouri River

Basin System operated by the Bureau of Reclamation, Department of the Interior. This connection was in keeping with the President's message to the Congress on February 23, 1961, in which he stated:

"I have directed the Secretary of the Interior to develop plans for the early interconnection of areas served by the Department's marketing agencies with adequate common carrier lines; to plan for further national cooperative pooling of electric power, both public and private; and to enlarge such pooling as now exists."

The gain in net revenues to the Missouri River Basin System and the Southwestern Federal Power System, resulting from this exchange, amounted to about \$2.8 million for fiscal years 1966 through 1969.

We discussed with SPA officials the potential for greater exchanges through this connection. Subsequently, on March 31, 1971, SPA and Missouri River Basin officials decided that no significant additional quantities of power could be exchanged until after 1972 because of transmission problems in the Missouri River Basin area.

In view of the possible benefits from connecting Federal power systems, we made limited inquiries into the potential for a similar arrangement between SPA and the Tennessee Valley Authority (TVA). Such a connection would require construction of a transmission line only about 50 miles long if agreements could not be worked out to transmit power over existing private utility lines connecting these areas.

SPA estimated that the Southwestern Federal Power System would have about 50 megawatts of unsold power capacity during the winter months of each year from 1971 through 1977. At SPA power rates this capacity is worth about \$4.2 million. TVA's heaviest demand period is in the winter months, and it appears that TVA could benefit from the SPA unsold capacity during such months.

In addition, the Southwestern Federal Power System at various times has available substantial quantities of

secondary energy¹ which SPA markets at 1.5 mills or 2 mills per kilowatt-hour, although it pays about 4 mills per kilowatt-hour for energy purchased. Therefore, if SPA could exchange this secondary energy with some other power-marketing organization for energy generated when SPA needs it, SPA probably could reduce the system's costs for purchased power.

This potential for reducing costs is shown by the following summary.

Fiscal year	Power purchases (note a)			Sales of secondary energy		
	Kilowatt hours	Total cost	Cost per kilowatt-hour (mills)	Kilowatt hours	Total revenue	Revenue per kilowatt-hour (mills)
1961	287,797,700	\$ 3,019,100	10.5	513,005,000	\$ 766,700	1.5
1962	103,522,100	2,462,300	23.8	575,759,000	863,600	1.5
1963	222,602,800	1,466,400	6.6	51,971,000	78,100	1.5
1964	670,817,300	2,845,400	4.2	10,185,000	15,300	1.5
1965	464,184,000	2,204,900	4.7	49,908,000	74,900	1.5
1966	186,471,000	1,168,000	6.3	103,752,000	155,600	1.5
1967	639,597,900	2,968,700	4.6	7,006,000	10,500	1.5
1968	191,712,300	1,347,500	7.0	1,224,229,000	2,226,500	1.8
1969	11,978,500	282,800	23.6	2,339,863,000	4,387,500	1.9
1970	<u>245,071,500</u>	<u>976,300</u>	<u>4.0</u>	<u>307,183,000</u>	<u>586,800</u>	<u>1.9</u>
Total	<u>3,023,755,100</u>	<u>\$18,741,300</u>	<u>6.2</u>	<u>5,182,861,000</u>	<u>\$9,165,500</u>	<u>1.8</u>

^aThese purchases do not include power purchased by SPA for customers not connected to SPA facilities.

We discussed with SPA officials the possibility of increasing the rates for the sale of secondary energy and the possibility of exchange arrangements with SPA customers having generating facilities. SPA informed us that it was considering increasing the rates but was not certain that the secondary energy could be marketed at higher rates. It informed us also that various customers had been approached without success regarding the possibility of working out exchange arrangements.

¹Hydroelectric energy which is not available on a continuous basis under the most adverse hydraulic conditions contemplated.

The Department of the Interior advised us that an increase in the rates at which secondary energy is sold must be seriously considered because of the increasing value of the energy due to higher fuel costs and because of the increasing costs of energy purchases. It stated, however, that SPA's total rate structure would need to be reviewed because the system's revenues should not be greater than those required to recover costs. The Department indicated that any increase in revenues from certain energy sales should require offsetting reductions in revenues from power capacity sales, unless such increase in energy revenues was directly related to an increase in costs.

In view of the system's large accumulated net operating loss and the additional costs which we believe should be recovered through rates (see p. 18), SPA, in our opinion, does not have to be unduly concerned at this time with the need to provide for offsetting reductions to revenues to avoid having the revenues exceed costs.

Recommendation to the
Secretary of the Interior and
the TVA Board of Directors

In view of the possibility of the mutual benefit and the potential for increasing net revenues to the Southwestern Federal Power System, we recommend that the Department of the Interior and TVA study the feasibility of a power exchange between SPA and TVA. If an exchange is determined to be advantageous to the Government, any legal problems should be presented to the Congress for resolution.

Agencies' comments

In commenting on a draft of this report in a letter dated July 26, 1972 (see app. II), the Department of the Interior stated that it believed that a market for the 50 megawatts of unsold power capacity could be found in the SPA area and that the amount was insufficient to justify long-term commitments outside the SPA area to a system, such as TVA, which could be reached only over long transmission distances.

Our review indicated, however, that most of this unsold capacity had been available from about fiscal year 1969 and that SPA had not found a market for it in the SPA area. Also the capacity involved was about equal to the capacity exchanged with the Missouri River Basin System over transmission distances comparable to those that probably would be involved under an exchange agreement with TVA.

The Department pointed out that most of the energy sales shown in the table on page 11 were for dump or excess energy available during heavy rainfall periods, whereas the power purchases were to insure that the system had power available at times when it was unable to generate sufficient power to meet its requirements. The Department indicated that energy exchanges were generally exchanges in kind and that exchange arrangements involving different types of energy were not extensively attainable in practical operation.

The Department agreed, however, that the feasibility of a power exchange between SPA and TVA should be studied, giving consideration to the costs for transmitting power through neighboring systems between SPA and TVA and to the alternative costs for constructing a transmission link between the eastern SPA grid and TVA. The Department stated that the benefit-to-cost ratio for the most feasible alternative should be greater than unity.

TVA, in a letter dated March 15, 1972 (see app. V), stated that, although its experience had been that it was difficult to justify an interconnection for the type of power exchanges that apparently were possible with SPA, it would be glad to review this matter further and to comment on any benefits which might accrue if the TVA act were amended to permit interchanges of power with SPA. Later, on May 4, 1972, TVA advised us (see app. V) that, to the best of its knowledge, SPA had no power resources at that time that appeared to warrant further investigation but that TVA would be pleased to look into the question further if SPA should later advise TVA of changes in SPA's circumstances.

The Federal Power Commission advised us by letter dated April 21, 1972 (see app. IV), that it favors interconnections between power systems when financial benefits may be possible and when improvements in reliability may be realized.

CHAPTER 3

STATUS OF REPAYMENT OF

REIMBURSABLE COSTS FROM POWER REVENUES

As of the end of fiscal year 1970, after 25 years into the repayment period, SPA had not repaid any portion of the Federal investment in the Southwestern Federal Power System and was about \$29.7 million in arrears in meeting other costs.

SPA, however, is continuing to prepare rate and repayment studies which show that the Federal investment in the system will be repaid within the required period. However, our evaluation of the most current study (February 1971) raised serious questions regarding its validity because of (1) weaknesses inherent in the development of the study as a result of the speculative nature of the long-range cost and revenue projections and (2) deficiencies in projecting system costs and revenues. Also we believe that improved reporting is needed to provide the Congress and management with information for evaluating the current status of repayment of the Federal investment in the system.

If SPA's February 1971 study were revised to correct the deficiencies noted during our review, it would show that system revenues would not be adequate at current rates to repay the Federal investment in the system within the required repayment period.

The Department of the Interior, in its letter of July 17, 1972 (see app. II), stated that the repayment studies demonstrated repayment within the required period based on the practices followed in preparing such studies and pointed out that the extent to which such practices were changed in future studies would determine whether repayment could be achieved with the existing rates.

WEAKNESSES INHERENT IN RATE AND REPAYMENT STUDIES

As noted starting on page 5, SPA prepares rate and repayment studies periodically to show whether power rates

are adequate to repay the Federal investment in the system within the required repayment period. The studies show the system's actual cost and revenue data through the end of the current fiscal year and a projection of such data through the end of the repayment period for the system, which ends 50 years from the date the last project in the system is placed in service.

The studies were prepared on the assumption that no repayments of the investment in a project would be required until the project's 50th year and that the repayment requirements were being met as long as the studies indicated that the investment in the project would be repaid within the required period, regardless of how much thus far had been repaid. Thus it is impossible to determine from the studies how SPA is doing in meeting its repayment requirements.

The studies were prepared on the further assumption that revenues from projects for which the Federal investment had been repaid would be used to repay the Federal investment in other projects in the system. Under this assumption, SPA estimates a faster repayment of the Federal investment in the latter part of the repayment period for the system.

As discussed on page 18, we believe that SPA had not properly prepared the rate and repayment studies but that, even if the studies had been properly prepared, the results would be somewhat speculative because of the uncertainties resulting from projecting system revenues and costs for extended periods into the future. We believe also that the following factors contribute to the speculative nature of the studies.

1. Cumulative price-level increases of 20 percent for operation and maintenance costs were projected for a 3-year period (fiscal years 1971-73), and the cost projections were held constant throughout the remainder of the repayment period. The operation and maintenance costs for the system actually increased about 34 percent during fiscal years 1968 through 1970.

2. The studies include estimates of the revenue and cost data for projects under construction based on the estimated dates that these projects will be placed in service. Such estimates have a significant effect on the status of the repayment of the Federal investment in the projects. Experience has shown that costs and in-service dates vary substantially from the original estimates as a result of many factors, such as engineering and funding problems. For example, SPA estimated in its February 1971 rate and repayment study that the Harry S Truman project would be placed in service in 1978 at a cost of about \$55 million for the power purpose. Information obtained by us from the Corps, however, showed that the estimated construction cost for the power purpose had increased to about \$61 million and that, based on recent funding levels, construction probably would not be completed before 1985.

3. The Federal investment in a project to be repaid from power revenues is based on allocations of costs to the various project purposes. Such allocations are considered tentative or firm. Tentative cost allocations are subject to retroactive adjustment which could substantially change the repayable Federal investment in a project. For eight of the 16 projects in service in SPA's area, the cost allocations were considered tentative at June 30, 1970, and therefore were subject to change. Our views on the need for firming up these cost allocations are discussed on page 29.

The Department pointed out (see app. II) that it was unaware of any legal requirement or accounting convention which renders unacceptable the above-described procedures for preparing rate and repayment studies. The Department stated that it favors such procedures because they permit repayment of the Federal investment in projects which by themselves are financially unfeasible and hold down system power rates to an economically competitive level. The Department stated also that it:

--Favors consideration of inflationary factors only for the time frame applicable to a rate filing. In the case of the February 1971 rate and repayment study, the inflationary factors were considered for the 3-year period for which the rate approval was requested.

- Agrees that estimates of future construction costs and in-service dates for power projects can and do change and that, on the basis of past experience, it would be surprising if the costs for the Harry S Truman project were not further increased significantly from the present estimate.
- Will shortly begin negotiations with the Corps on firm cost allocations for the eight projects which now have tentative cost allocations. Firm cost allocations will not mean, however, that costs cannot change as a result of plant retirements and additions.

We are not suggesting that SPA does not have authority to follow its present procedures in preparing rate and repayment studies. However, we believe--and the above comments by the Department appear to confirm--that, even if the present procedures were properly followed, the results would be speculative. For this reason, we believe that SPA should prepare supplemental statements designed to provide information that would be a useful adjunct in evaluating the system's repayment status. Our views on the need for such supplemental statements are discussed on page 25.

DEFICIENCIES IN PROJECTING
SYSTEM COSTS AND REVENUES

SPA's rates at the time of our review were based on a rate and repayment study made in January 1970. On the basis of another study made in February 1971, SPA requested a rate increase on selected contracts and a 3-year extension of its rate schedules. The Federal Power Commission approved this request on November 30, 1971. Our evaluation of data used in these two studies showed that deficient practices had been followed in projecting the system's cost and revenue estimates. Deficiencies in the February 1971 study are discussed below.

Projected interest expense
understated about \$230 million

We believe that projected interest costs were understated about \$230 million in the February 1971 rate and repayment study because (1) projected revenues had been allocated improperly and (2) excessive interest credit had been computed on funds paid into the Treasury.

Revenues allocated improperly

The Department of the Interior indicated to the Congress that power revenues would be allocated to repay costs in the following order.

1. Current year's operation, maintenance, and interest expense.
2. Prior years' operating deficit.
3. Repayment of the Federal investment.

The Department told us that revenue available for repayment of the Federal investment in a system should be allocated to the projects in the descending order of the applicable interest rates but that sufficient revenue should be allocated to each project to insure that the investment will be repaid within the 50-year repayment period. We noted, however, that SPA was not allocating revenue in this manner in either its rate and repayment studies or its financial statements.

In the February 1971 rate and repayment study, SPA allocated all revenue available for repayment of the Federal investment in the system to the projects bearing the highest interest rates without recognizing that the investment in each project is required to be repaid within 50 years. This method of allocating revenue extended the projected repayment of the earliest investments--which bear the lower interest rates of 2-1/2 percent--beyond 50 years.

In its financial statements, SPA generally allocated revenue available for repayment of the Federal investment in the system on the basis of the ratio of the investment in each project to the total investment in the system.

If SPA had allocated the projected revenues to the individual projects in its February 1971 rate and repayment study on the same basis as used in its financial statements, the projected interest costs would have been increased by about \$180 million. Also, if SPA had allocated the projected revenues on the basis of the stated departmental method, the projected interest costs would have been greater than computed for the February 1971 study.

The Department stated (see app. II) that SPA is aware that its method of allocating revenue in the rate and repayment studies is not consistent with the actual allocation of revenue in the financial statements. The Department advised us that the departmental method of allocation, as described on page 18, would be used in the future.

Excessive interest credit

SPA computes interest expense annually on the Federal investment outstanding in each project at the beginning of the year, plus additions during the year. Because repayments are made throughout the year as revenues are received, this method of computation tends to overstate the interest expense. Therefore SPA makes an adjustment at the end of the year to reduce the interest expense. SPA's method of computing the interest credit for the rate and repayment study and for its financial statements differed from the Corps' method of computing the credit for its financial statements. In our opinion, neither method was entirely correct.

The method used in computing the interest credit, we believe, should be designed to adjust interest expense to what such expense would have been if it had been computed at the various times during a year when revenues were deposited in the Treasury.

We noted, however, that, in computing the interest credit for the rate and repayment study and for its financial statements, SPA assumed, in effect, that the total revenue paid into the Treasury during the year earned interest until the end of the year, when the revenue was allocated to the payment of operations, maintenance, and interest costs and to the repayment of the Federal investment. Also SPA computed the interest credit at the current year's interest rate even though the interest expense had been computed at the substantially lower rates applicable to the projects at the time of construction. SPA, by using the higher interest rate, understated the interest expense in the February 1971 rate and repayment study by about \$49 million.

For financial statement purposes, the Corps computed the interest credit on the basis of the lower interest rates applicable to the projects. We believe that the Corps' method of computing the interest credit was more appropriate than SPA's method.

We believe also that both SPA and the Corps further understated the interest expense by computing the interest credit on the basis of the total revenue paid into the Treasury. In our opinion, the credit should not have been computed on that part of the total revenue paid into the Treasury which was designated as a payment of interest. Although we did not estimate the effect of this incorrect computation of the interest credit for the entire repayment period, we did estimate that it resulted in an additional understatement of \$823,000 in the interest expense for the 6-year period 1965 through 1970.

The Department told us (see app. II) that it prefers to forego comment at this time on the method of computing interest on the unrepaid investment in the projects making up the system because it is giving consideration to this matter for all of its power activities and because policies are being developed for uniform application. The Department did

state, however, that viewpoints differ among professionals as to the rationale for procedures in this area and that its judgment must take into consideration not only the various accounting theories but also the various management responsibilities of the Department.

Federal investment understated

The Federal investment in the system as reported in the February 1971 rate and repayment study was understated by about \$1,031,000 because it did not include:

- Losses of about \$994,000 which resulted from the retirement of an electric plant in service.
- The acquisition cost of about \$34,000 for a power transformer leased to the city of Nixa, Missouri.
- Costs of about \$3,000 for assets which were being retired.

The Department of the Interior acknowledged the understatement of \$1,031,000 and stated that this amount, and future losses on retirements, would be included as a repayment item in future rate and repayment studies.

Provision for replacing transmission facilities not identified

The February 1971 rate and repayment study showed estimated costs for replacing Corps equipment but not for replacing SPA transmission facilities which had a book value of \$50.7 million at June 30, 1970.

SPA estimated that its operation and maintenance costs, which were about \$2.6 million in fiscal year 1970, would increase to \$3.4 million by fiscal year 1973 because of expected price-level increases. No specific amount was shown in the \$3.4 million estimate as an allowance for major replacements in the transmission system although some parts of the system will be about 77 years old by 2028, the year the repayment period for the Southwestern Federal Power System is scheduled to end. For financial statement purposes, SPA depreciates its transmission facilities over an average expected life of 50 years.

The Department of the Interior informed us (see app. II) that adequate allowances, although not specifically identified as such, had been included in the rate and repayment study for replacement of transmission facilities. However, it stated that, for audit and management review purposes, future rate and repayment studies would specifically identify allowances for replacement of SPA's transmission facilities.

Transmission costs duplicated

SPA included in the February 1971 rate and repayment study the estimated costs of both constructing transmission facilities and transmitting power over private transmission lines from the Stockton and Harry S Truman projects to SPA's existing transmission facilities. One, but not both, of these methods may be necessary to transmit the power. SPA's policy is to construct facilities for transmitting power only when it is uneconomical to transmit the power over private transmission facilities.

SPA's estimates developed for the rate and repayment study showed that the cost to construct and maintain federally owned transmission facilities would be substantially less than the cost to transmit the power over private transmission lines. Therefore the latter cost should not have been included in the study. Such costs were estimated at about \$51 million over the system repayment period.

The Department of the Interior advised us (see app. II) that duplicate transmission costs would not be included in future rate and repayment studies. The Department stated that, subsequent to our audit, SPA had completed arrangements for marketing power from the Stockton project which eliminated the need to construct transmission facilities or pay for the use of private transmission lines. It said that SPA would attempt to negotiate a similar arrangement for marketing the output of the Harry S Truman project but that pending resolution of this matter, it would be necessary to include in future rate and repayment studies (as the least-cost alternatives) the estimated cost of constructing transmission facilities to integrate the Harry S Truman project with SPA's system.

We believe that the errors and deficiencies in SPA's February 1971 rate and repayment study indicate that the system's power revenues projected under existing rate schedules may not be adequate to meet the repayment requirements for the system.

Recommendation to the
Secretary of the Interior

We recommend that SPA be instructed to prepare and publish a revised rate and repayment study for the system, with the above-cited deficiencies corrected, to demonstrate whether the existing rate structure is adequate to recover the Federal investment in the system within the required repayment period.

Agencies' comments

The Department of the Interior has stated (see app. II) that SPA will prepare a revised rate and repayment study prior to the expiration of the current rate approval in 1974, or sooner if significant changes in cost projections occur. The Department has stated also that any future study will be consistent with stated departmental policies, including those which bear directly on our comments and recommendations.

The Federal Power Commission has stated (see app. IV) that SPA, in filing for rate approval for the system beyond May 31, 1974, will need to furnish a new rate and repayment study. The Commission stated that the new study should take into account the progress made in improving the financial position of the system and should also eliminate the deficiencies of previous studies as noted in our report. The Commission stated that some of these deficiencies had been noted in previous Commission reviews, particularly SPA's computation of excess interest credits on revenues deposited in the Treasury.

As discussed in the sections of this report dealing with deficiencies in projecting system costs and revenues, the Department indicated that in some cases corrective actions would be taken and that in other cases the matters would be

given further consideration. However, the Department made the following observation.

"Some of the recommendations in the draft report are theoretically persuasive but, from a practical viewpoint, cannot be imposed upon the SPA system--which has been operating for 28 years--without causing serious disturbances. Such disturbances as, for example, general rate increases necessary to satisfy frequently changing accounting theories may not be in the public interest. A financial deficit of over \$20 million conceivably could be increased to over \$200 million, casting serious doubt on SPA's ability to repay the Federal investment, with interest, within the prescribed 50-year period. Although SPA rates can be raised, existing and potential customers are not ready and willing to pay more for the same electric commodity and, to the extent that they can, customers will seek less expensive alternative sources of power. SPA does not have a captive market; customers who have long-term SPA supply contracts can cancel if they do not assent to rate increases. Since SPA does not have a full utility presence in the Southwest, it can maximize its revenues only within the framework of prevailing market prices for electric capacity and energy."

We recognize that there is a practical limit to which SPA can increase the system's rates and still market the power. We believe, however, that these are matters which do not have a bearing on determining, and accounting for, the system's costs. The system's costs should be determined on the basis of the soundest available criteria without regard to its ability to recover such costs within the repayment period. If, as a practical matter, power rates cannot be increased sufficiently to recover costs, then the rate and repayment studies should disclose that fact by showing that the Federal investment in the system cannot be repaid within the required period. If the criteria for determining costs were to be influenced by the ability to recover such costs, then, in our opinion, the rate and repayment studies would become a meaningless exercise.

NEED FOR IMPROVED REPORTING
ON STATUS OF REPAYMENT

As noted on page 14, SPA prepares rate and repayment studies on the assumption that no payment of the Federal investment in a project is required until the project's 50th year and that the repayment requirements are being met if the studies show that the investment can be repaid within the required period, even though revenues have been insufficient to repay any portion of the Federal investment.

Because this concept does not provide any predetermined milestones or annual repayment goals, the studies do not show the progress made in meeting repayment requirements and do not provide the Congress and management with adequate information for use in evaluating the status of repayment.

We believe that SPA, in addition to publishing rate and repayment studies for the power projects making up the system, should develop and publish supplementary statements comparing the annual and cumulative repayments of the Federal investment with scheduled repayments established on some orderly basis for repaying the investment in the projects within the required period. Such comparisons would show if the scheduled repayments were being met and, if not, the extent of the deficiencies. They would also provide the Congress and management with a basis for inquiry into the action necessary to insure that revenues will be available to meet any increased repayments that may be required during the remaining repayment period.

Legislation authorizing the Secretary of the Interior to sell hydroelectric power from Corps projects requires repayment of the Federal investment in the projects but not necessarily in regularly scheduled annual amounts. To reasonably measure the status of repayment of the Federal investment in the Southwestern Federal Power System, we used the compound-interest amortization method to compute the annual requirements for repaying the investment over a period ending 50 years from the date the last project was placed in service.

Our computation of the amount due June 30, 1970, showed that the deficiency in the repayments would have been about

\$86.7 million. (See app. I.) This deficiency was computed on the basis of costs recorded in the accounts of SPA and the Corps. The deficiency would have been greater if the recorded costs had been adjusted for the understatements discussed in previous sections of this report.

Under the compound-interest method of amortizing the investment in a project, annual funds are required at a fixed amount which, during the repayment period, will provide for the repayment of the investment and interest on the unrepaid investment. Of the fixed annual amount, the amount applicable each year to repayment of the investment is increased as the interest on the unrepaid investment is decreased.

Although the Southwestern Federal Power System is not required, by law, to meet this type of repayment schedule, such a schedule, if used in conjunction with the rate and repayment studies, would show the extent to which the system is relying on future revenues to meet repayment requirements.

We recognize that deficiencies in meeting scheduled annual and cumulative repayments of the Federal investment in a power project, established under the compound-interest amortization method or any other orderly method, do not necessarily mean that the power rates are inadequate to provide the revenues needed to meet the increased repayment in the remaining repayment period. Deficiencies in meeting scheduled repayment requirements might be eliminated in future years by making annual repayments in excess of the scheduled requirements. The adoption of an orderly method for scheduling annual repayment requirements would, however, provide useful information to the Congress and management for inquiry into how the additional revenue to meet the increased annual repayment requirement will be obtained, including consideration as to the need for examining into the adequacy of the rates.

Recommendation to the
Secretary of the Interior

We recommend that SPA supplement the rate and repayment studies for the Southwestern Federal Power System with information designed to provide a basis for comparing actual

repayments of the Federal investment in the system with annually scheduled repayments established on an orderly basis.

Agencies' comments

The Department of the Interior, in its letter of July 26, 1972 (see app. II), stated that the development of an amortization schedule for comparative purposes was not considered necessary or desirable, particularly if it led to a conclusion that, all other variables held constant, the SPA system rates were too low. The Department stated that (1) it did not believe that it was in the public interest or in keeping with the intent of the Congress in authorizing federally financed power facilities in the Southwest to raise rates to satisfy an arbitrary accounting procedure, (2) the status of repayment already was clearly shown in the "Power Investment" columns of SPA's rate and repayment studies, and (3) a supplementary annual comparison of actual results with estimated payout results was published so that major deviations could be analyzed for long-range effect. Subsequently, SPA told us that it could not locate such a published comparison.

The supplementary information recommended by us was not based on an arbitrary accounting procedure designed to raise rates in the Southwest but was designed to provide information to the Congress and management for use in evaluating the status of repayment of the Federal investment in the system in relation to what such status would be, based on an orderly method of amortizing the investment within the required repayment period. Such information, considered alone, was not intended to form a basis for concluding whether rates are too low or too high.

Although SPA's present rate and repayment studies clearly show the total amount of Federal investment in the system that has been repaid and is unrepaid, they do not contain predetermined milestones against which such amounts can be compared to assist in evaluating the repayment status. The present studies are based on the assumption that the repayment of the Federal investment in a project is on schedule-- even though none of the investment has been repaid to date-- as long as they show that the investment will be repaid at

some future date prior to expiration of the 50-year repayment period.

For example, the February 1971 study does not indicate any repayment requirement for the system until 1995 when the investments in the first units of the Norfolk and Denison projects, the first projects placed in service, must be repaid. As pointed out previously (see p.15), results based on such long-range projections are somewhat speculative, as is indicated by the Department's comments (see app. II) on a draft of this report.

"SPA or any other repayment plans are only as good as the estimates involved. Estimates that are made for a long period of time become less accurate with each passing year and in time become meaningless. The SPA repayment study projects investments, revenues and costs as accurately as possible for the period of FPC rate review which may be two, three or five years, or at most the year the last system project under construction is expected to become operative. When a study demonstrates a 50-year repayment, it is assumed that, with the rates used, payout is on schedule and meets the requirements of Section 5 of the Flood Control Act of 1944."

The supplementary information recommended by us would not overcome all the weaknesses inherent in SPA's rate and repayment studies but, in our opinion, would be a useful adjunct to such studies in evaluating the status of repayment of the Federal investment in the system.

In commenting on a draft of this report by letter dated April 21, 1972 (see app. IV), the Federal Power Commission--which is responsible for reviewing SPA's rate and repayment studies and approving its rate schedules--stated that the Commission believes that the supplementary statements proposed by us, comparing annual and cumulative repayments with scheduled repayments, would be useful in appraising the adequacy of the level of rates.

CHAPTER 4

FACTORS AFFECTING RATE AND REPAYMENT STUDIES

INCLUDED IN PRIOR GAO REPORT

In addition to the problems discussed in chapter 3, we noted other problems which, if resolved, could affect the amount of the system's costs to be repaid. These problems were mentioned in a prior GAO report on the Southwestern Federal Power System¹ and are concerned with the need to firm up tentative cost allocations and to record the cost of space furnished by the General Services Administration.

NEED TO FIRM UP COST ALLOCATIONS

As indicated on page 16, the allocations of total project costs between project purposes for eight of the 16 projects in service at June 30, 1970, were considered tentative by SPA and therefore were subject to change. In the process of firming up tentative cost allocations, the amounts allocated to the power purpose could change substantially, but the amount of such changes and the resulting effect on rate and repayment studies are not now determinable. It is important, therefore, that such cost allocations be firmed up as soon as possible to determine the effect on the amount of the Federal investment that power users must repay. We advised SPA that timely action should be taken with regard to this matter because many of the projects with tentative cost allocations have been in service for several years.

Recommendation to the Secretaries of the Interior and the Army

We recommend that the Departments of the Interior and the Army take appropriate action to firm up tentative cost allocations applicable to projects in the Southwestern Federal Power System.

¹Report to the Congress on "Examination of Financial Statements, Southwestern Federal Power System, Fiscal Year 1967" (B-125031 Dec. 19, 1968).

Agencies' comments

The Department of the Interior agreed (see app. II) that action should be taken to firm up the tentative cost allocations and stated that SPA is prepared to take appropriate action at the field level. The Department of the Army stated (see app. III) that the need for timely development and adoption of firm cost allocations was recognized and that the Corps had initiated actions to firm up allocations for all operating projects in the Southwestern Federal Power System.

We believe that continuing and concentrated attention should be directed to approving firm cost allocations for all operating projects.

COST OF SPACE FURNISHED BY THE GENERAL SERVICES ADMINISTRATION NOT INCLUDED IN FINANCIAL STATEMENTS

Prior to fiscal year 1965, SPA recorded the cost of space furnished by the General Services Administration (GSA) in its financial accounts and in the amount to be recovered from power users and repaid to the Treasury. In fiscal year 1965, SPA discontinued this practice. During our review we advised SPA officials that the cost of space should be charged as an expense of operations and pointed out that the Bureau of Reclamation was then following such a practice. SPA officials concurred and adjusted their accounts to include in the amount to be repaid an estimated cost of space of \$671,000 for fiscal years 1965 through 1970. The Corps, however, does not record in its accounts the cost of space provided by GSA.

Although other Federal power agencies now record the cost of space provided by GSA, the Corps told us that such costs amounted to less than one-half of one percent of the Corps' total cost and therefore were not significant enough to be recorded.

We believe that for reimbursable programs, such as the Federal power program, relative significance is not a proper limitation in ascertaining whether a cost will be recorded in the financial accounts and recovered through the rates

charged power users. A more proper limitation for reimbursable purposes is whether the recognition of the costs results in an economical practice. For example, if the administrative cost of ascertaining and allocating imputed space costs approaches or exceeds the amount of the imputed costs that would be included in reimbursable costs, then it would not be economical to do so. We believe that the Corps could ascertain and allocate such space costs with little additional administrative cost and that action by the Corps to record such costs would be consistent with the action taken by other Federal power agencies.

Agencies' comments

In a draft of this report we proposed that the Corps of Engineers record in its accounts, for recovery in power rates, appropriate amounts for the cost of space furnished by GSA.

The Department of the Army, in commenting on our draft report in a letter dated May 15, 1972 (see app. III), stated that:

"*** The Corps of Engineers is engaged in a wide variety of activities where there is no requirement to allocate rent space costs. If it were to instigate a rent space cost allocation procedure, the entire cost of establishing and managing such a procedure must be charged to the water resources project accounts. The value of the rent free space being considered amounts to less than 1/2 of 1% of the program costs and, therefore, is not regarded as a significant cost item. In addition, the administrative cost of determining the portion of space costs to be allocated to Southwestern Power Administration could easily exceed the costs allocable for reimbursement. Therefore, there is little merit in allocating costs of this type."

Subsequent to the above comments by the Department of the Army, however, the Corps advised the Bonneville Power Administration that it would begin to record such space costs applicable to the Federal Columbia River Power System

in the Pacific Northwest. Apparently, the Corps found that the determination and allocation of such cost was not impractical in that case.

The Department of the Interior, in commenting on this matter, stated that it concurs in principle with the inclusion of costs associated directly with producing power but that:

"*** we are not in favor of an arbitrary or general allocation of costs associated with office space furnished by GSA and used by the Corps in its total operations."

We are not proposing that space costs be allocated arbitrarily but, rather, that space cost allocations be based on some logical allocation method as are other types of cost which the Corps presently allocates to the power function. The Department's comments particularly are confusing because another departmental agency--the Bureau of Reclamation--presently requires that the cost of regional office space provided by GSA be recorded in the accounts and distributed to various projects or activities.

Recommendation to the
Secretary of the Army

In the interest of consistency, we recommend that the Corps of Engineers further consider the practicability of recording space costs and allocating appropriate amounts of such costs to the Southwestern Federal Power System.

CHAPTER 5

SCOPE OF REVIEW

Our review of the financial activities of SPA and the Corps in the Southwestern Federal Power System included a review of applicable policies and procedures and an examination of the accounting records, reports, and transactions to the extent we considered necessary to evaluate the reliability of financial data for fiscal year 1970. Our review, which was made in accordance with generally accepted auditing standards, included such other auditing procedures as we considered necessary, except that we did not confirm accounts receivable as of June 30, 1970. We satisfied ourselves, however, as to the fairness of the accounts receivable at June 30, 1970, by other auditing procedures. In addition, we reviewed pertinent legislation and congressional hearings and reports applicable to SPA and Corps activities in the Southwestern Federal Power System and reviewed selected rate and repayment studies.

Our last review of the financial statements of the Southwestern Federal Power System was for fiscal year 1967, and we did not review the information shown in the accompanying financial statements for fiscal year 1969 except to the extent necessary to ascertain that accounting principles and standards were applied on a consistent basis.

Our review was made at the Corps' Southwestern Division in Dallas which consolidates the financial statements of the Corps district offices; at the Corps district offices in Tulsa, Little Rock, Fort Worth, Vicksburg, St. Louis, and Kansas City; and at the headquarters office of the Southwestern Power Administration in Tulsa.

CHAPTER 6

OPINION OF FINANCIAL STATEMENTS

SPA amended the accompanying financial statements (exhibits 1 through 3) of the Southwestern Federal Power System for fiscal year 1970 for certain adjustments suggested by us, and therefore they differ from the statements issued previously by SPA and submitted to the Congress. The statements were prepared from records maintained on a cost basis; they do not show financial results on a repayment basis. We prepared a separate calculation showing the status of repayment at June 30, 1970, based on recorded costs and on a compound-interest amortization method. (See app. I.)

Subject to the effects, not now determinable, of future adjustments related to the adoption of firm cost allocations, as discussed in chapter 4, the accompanying financial statements, in our opinion, present fairly the assets and liabilities of the Southwestern Federal Power System at June 30, 1970, the financial results of its power operations, and the source and application of its funds for the year then ended, in conformity with accounting principles and standards prescribed for Federal executive agencies by the Comptroller General of the United States. These accounting principles and standards were applied on a basis consistent with that of the preceding period, except for the change, in which we concur, to include in the financial statements the cost of space furnished SPA by GSA.

BEST DOCUMENT AVAILABLE

UNITED STATES OF AMERICA
SOUTHWESTERN FEDERAL POWER SYSTEM
STATEMENT OF COMMERCIAL POWER REVENUES AND EXPENSES
FOR THE FISCAL YEARS ENDED JUNE 30, 1970, AND JUNE 30, 1969

(Notes 1 and 2)

	Fiscal Year <u>1970</u>	Fiscal Year <u>1969</u>
(000 omitted)		
OPERATING REVENUES:		
Sales of electric energy	\$34,767	\$35,250
Downstream benefits revenue	69	69
Other operating revenue	<u>5</u>	<u>2</u>
Total operating revenues	<u>34,841</u>	<u>35,321</u>
OPERATING EXPENSES:		
Purchased power	7,215	6,002
Transmission service charge	4,711	4,732
Operation	4,848	4,211
Maintenance	2,253	2,043
Depreciation (note 4)	<u>2,480</u>	<u>2,337</u>
Total operating expenses	<u>21,507</u>	<u>19,325</u>
Net operating revenues	<u>13,334</u>	<u>15,996</u>
INTEREST EXPENSES:		
Interest expense (note 6)	12,805	12,513
Interest charged to construction	<u>- 140</u>	<u>- 43</u>
Net interest expense	<u>12,665</u>	<u>12,470</u>
Revenue before extraordinary items	669	3,526
EXTRAORDINARY ITEMS (note 11)	<u>- 130</u>	<u>11</u>
Net revenues	<u>\$ 539</u>	<u>\$ 3,537</u>
ACCUMULATED NET LOSS:		
Balance at beginning of year	-\$52,260	-\$55,874
Net revenues - current year	539	3,537
Prior year adjustments (note 9)	<u>- 504</u>	<u>77</u>
Balance at end of year	<u>-\$52,225</u>	<u>-\$52,260</u>

The notes on pages 40 to 46 are an integral part of this statement.

UNITED STATES OF AMERICA
SOUTHWESTERN FEDERAL POWER SYSTEM

STATEMENT OF ASSETS AND LIABILITIES OF THE COMMERCIAL
POWER PROGRAM AS OF JUNE 30, 1970 AND 1969 (notes 1 and 2)

A S S E T S

	June 30	
	1970	1969
	(000 omitted)	
FIXED ASSETS:		
Completed plant (Schedule A)	\$477,440	\$458,686
Retirement work in progress	<u> -11</u>	<u> -14</u>
	477,429	458,672
Less accumulated depreciation (note 4)	<u> 22,489</u>	<u> 20,125</u>
	454,940	438,547
Construction work in progress (Schedule A)	<u>127,313</u>	<u>114,686</u>
Total fixed assets	<u>582,253</u>	<u>553,233</u>
 CURRENT ASSETS:		
Unexpended funds	12,973	15,570
Special funds	3,277	21,981
Deposit funds	64	123
Accounts receivable (note 5)	3,537	2,981
Accrued utility revenue	412	335
Materials and supplies	1,089	996
Miscellaneous current assets	<u> 3</u>	<u> 2</u>
Total current assets	<u>21,355</u>	<u>41,988</u>
 OTHER ASSETS AND DEFERRED CHARGES	 <u> 22</u>	 <u> 18</u>
Total Assets	<u>\$603,630</u>	<u>\$595,239</u>

The notes on pages 40 to 46 are an integral part of this statement.

L I A B I L I T I E S

	June 30	
	<u>1970</u>	<u>1969</u>
	(000 omitted)	
INVESTMENT OF U.S. GOVERNMENT:		
Congressional appropriations	\$648,570	\$614,934
Revenues transferred to continuing fund	49,390	48,976
Transfers to or from other Federal agencies, net	6,159	4,639
Interest on Federal investment (note 6)	<u>168,830</u>	<u>152,294</u>
Gross Federal investment	872,949	820,843
Less funds returned to U.S. Treasury	<u>221,552</u>	<u>179,018</u>
Net investment of U.S. Government	<u>651,397</u>	<u>641,825</u>
ACCUMULATED NET LOSS:		
Balance at start of year	-52,260	-55,874
Net revenues current year (Exhibit 1)	539	3,537
Prior years adjustments (note 9)	<u>-504</u>	<u>77</u>
Balance at end of year	<u>-52,225</u>	<u>-52,260</u>
CURRENT LIABILITIES:		
Accounts payable	3,685	4,840
Employees accrued leave	234	261
Deposit fund and other liabilities	<u>65</u>	<u>125</u>
Total current liabilities (note 8)	<u>3,984</u>	<u>5,226</u>
CONTRIBUTIONS IN AID OF CONSTRUCTION	<u>474</u>	<u>448</u>
Total Liabilities	<u>\$603,630</u>	<u>\$595,239</u>

EXHIBIT 3

UNITED STATES OF AMERICA
SOUTHWESTERN FEDERAL POWER SYSTEM

STATEMENT OF SOURCE AND APPLICATION OF FUNDS OF COMMERCIAL
POWER PROGRAM FOR FISCAL YEAR ENDING JUNE 30, 1970 (NOTES 1 AND 2)

	(000 omitted)
SOURCE OF FUNDS:	
Congressional appropriations	\$33,636
Transfers from other Federal agencies	<u>849</u>
Gross investment	\$34,485
Revenue from sale of electric energy	34,767
Other operating revenues	<u>82</u>
Total revenues	34,849
Changes in working capital	19,392
Contributions in aid of construction	<u>26</u>
Total source of funds	<u>\$88,752</u>
APPLICATION OF FUNDS:	
Operating expenses (excluding depreciation expense of \$2,480,000 and imputed rental expense of \$146,000)	\$18,881
Investment in electric utility plant (excluding capitalized interest of \$3,960,042)	27,662
Funds returned to U.S. Treasury	42,120
Increase in other assets and deferred charges	4
Prior years adjustments (note 9)	<u>85</u>
Total application of funds	<u>\$88,752</u>

The notes on pages 40 to 46 are an integral part of this statement.

UNITED STATES OF AMERICA

SOUTHWESTERN FEDERAL POWER SYSTEM

STATEMENT OF FIXED ASSETS OF THE COMMERCIAL POWER PROGRAM

AS OF JUNE 30, 1970 (notes 2 and 3)

<u>Project</u>	<u>Completed plant (notes 4 and 6)</u>	<u>Construction work in progress</u>	<u>Total</u>	<u>Retirement work in progress</u>	<u>Accumulated depreciation</u>	<u>Total fixed assets</u>
(000 omitted)						
PROJECTS IN SERVICE:						
Transmission facilities						
(SPA)	\$ 51,367	\$ 4,219	\$ 55,586	\$-13	\$ 5,474	\$ 50,099
Beaver	33,525	10	33,535	-	578	32,957
Blakely Mountain	25,013	-	25,013	-	1,463	23,550
Broken Bow	11,771	11,894	23,665	-	18	23,647
Bull Shoals	59,717	14	59,731	-	3,726	56,005
Dardanelle	44,768	7	44,775	-	734	44,041
Denison	20,676	-	20,676	-	1,721	18,955
Eufaula	34,178	-	34,178	-	742	33,436
Fort Gibson	16,706	-	16,706	-	1,332	15,374
Greers Ferry	34,043	36	34,079	-	696	33,383
Keystone	26,932	-	26,932	-	198	26,734
Narrows	7,162	-	7,162	-	560	6,602
Norfolk	13,627	8	13,635	-	1,293	12,342
Sam Rayburn	24,449	-	24,499	-	379	24,070
Table Rock	53,317	38	53,355	2	2,010	51,347
Tenkiller Ferry	12,004	-	12,004	-	851	11,153
Whitney	8,185	-	8,185	-	714	7,471
Total	<u>\$477,440</u>	<u>\$ 16,226</u>	<u>\$493,666</u>	<u>\$-11</u>	<u>\$22,489</u>	<u>\$471,166</u>
PROJECTS UNDER CONSTRUCTION (note 10):						
Cannon		\$ 1,861	\$ 1,861			\$ 1,861
DeGray		13,744	13,744			13,744
Robert S. Kerr		36,031	36,031			36,031
Ozark		25,318	25,318			25,318
Stockton		19,608	19,608			19,608
Harry S Truman		4,657	4,657			4,657
Webbers Falls		9,868	9,868			9,868
Total		<u>\$111,087</u>	<u>\$111,087</u>			<u>\$111,087</u>
Total fixed assets	<u>\$477,440</u>	<u>\$127,313</u>	<u>\$604,753</u>	<u>\$-11</u>	<u>\$22,489</u>	<u>\$582,253</u>

The notes on pages 40 to 46 are an integral part of this statement.

UNITED STATES OF AMERICA
SOUTHWESTERN FEDERAL POWER SYSTEM
NOTES TO THE FINANCIAL STATEMENTS

Note 1. Basis of financial reporting

The accompanying financial statements for the Southwestern Federal Power System are prepared on the cost accounting basis which includes depreciation by the compound interest method as one element of cost. The statements do not show financial results on a repayment basis either for the fiscal year or cumulatively. Repayment requirements are determined by a separate analysis based on a 50-year repayment period from the date the last generating project is included in the system.

The accounts for power operations are maintained to the extent practicable, in accordance with the uniform system of accounts prescribed for public utilities by the Federal Power Commission under the Federal Power Act (16 USC 825-b).

Note 2. Composition of the Southwestern Federal Power System

The Southwestern Federal Power System is the name applied to the hydroelectric generating plants constructed and operated by the Corps of Engineers (Corps) in the Southwestern United States, and the Southwestern Power Administration (SPA) transmission facilities. SPA is the power marketing agency for the system.

The Southwestern Federal Power System is not an official government agency, nor is it an individual legal entity. SPA and the Corps are separate agencies, each separately managed and financed and each having a separate accounting system. However, the generating plants and transmission facilities are operated as an integrated power system, and the financial statement showing the results of power operations are consolidated and prepared on the same basis, under the name of the Southwestern Federal Power System.

Note 2. Composition of the Southwestern Federal Power System
(continued)

At June 30, 1970, there were sixteen Corps projects in service with a total installed generating capacity of 1,533,500 kilowatts, and the transmission system included 23 substations, 11 switching stations, and about 1,652 circuit miles of transmission line. This includes 35 circuit miles of transmission line leased from the City of Jonesboro, Arkansas.

Note 3. Cost allocations

Costs of facilities which serve only one purpose are assigned to that purpose. For projects which serve more than one purpose (power, navigation, flood control, etc.), it is necessary to allocate the costs of joint-use facilities among the purposes served. The term "cost allocation" is used to describe this process and result.

Cost allocation of joint-use facilities are designated as firm or tentative. A tentative allocation is one which may be adjusted retroactively when it is made firm. A firm allocation may be changed in the future, if conditions warrant, but only prospectively. The following table shows the status of cost allocations for the generating projects in operation at June 30, 1970. The cost allocation for all projects under construction at that date are considered tentative.

Status of cost allocations - projects in operation

<u>Project</u>	<u>Status</u>
Beaver	Tentative
Blakely Mountain	Firm
Broken Bow	Tentative
Bull Shoals	Firm
Dardanelle	Tentative
Denison	Firm
Eufaula	Tentative
Fort Gibson	Firm
Greers Ferry	Tentative
Keystone	Tentative
Narrows	Firm
Norfolk	Firm
Sam Rayburn	Tentative
Table Rock	Tentative
Tenkiller Ferry	Firm
Whitney	Firm

Note 4. Fixed assets and depreciation

Fixed assets are stated at cost or at appraised value of property transfers. The amounts shown for completed plant and construction work in progress are subject to the following:

Broken Bow reservoir

Electric facilities placed in service during June 1970, but transfer of cost to completed plant made in July 1970. \$11,894,000

De Gray reservoir

Construction in progress understated due to cost allocation. Correction will be made in cost allocations after June 30, 1970. \$ 756,000

Sam Rayburn reservoir

Cost allocation adjustments during fiscal year 1971 will reduce the power investment. \$ 769,000

The compound interest method is used for depreciating electric plant. Plant service lives are based on engineering studies, except that no item has been assigned a service life in excess of 100 years. Cost of land (except for Fee Simple), land rights, relocations, and clearing are amortized and the amortization is included in the provision for depreciation.

Note 5. Accounts receivable

On June 30, 1970, the following accounts receivable were in dispute or litigation:

1. NW ELECTRIC POWER COOPERATIVE, INC.	\$ 33,500
2. ARKANSAS ELECTRIC COOPERATIVE, INC.	65,975
3. ASSOCIATED ELECTRIC COOPERATIVE, INC.	<u>220,600</u>
	<u>\$320,075</u>

Subsequent to June 30, 1970, item 2 was compromised for \$60,851. Subsequent billings to Associated Electric (item 3) have increased the amount to \$2,867,700 on June 30, 1971. Associated is billed in accordance with a rate schedule modification confirmed and approved by the Federal Power Commission on May 28, 1970. Associated has denied liability and

Note 5. Accounts receivable (continued)

has instituted legal proceedings to have the rate schedule modification rescinded.

Note 6. Interest rates

An interest rate of 2-1/2% is applied to the unrepaid Federal investment for the majority of the Corps generating projects. The generating projects that use a rate higher than 2-1/2% are as follows: Broken Bow, De Gray, and Stockton 2-5/8%, Harry S Truman 3%, and Clarence Cannon 3-1/8%.

Interest rates are applied to the unrepaid Federal investment by SPA as follows:

Fiscal year 1963 and prior Increment in investment	2-1/2%
fiscal year 1964 Increment in investment	2-7/8%
fiscal year 1965 Increment in investment	3%
fiscal year 1966, 1967, 1968 Increment in investment	3-1/8%
fiscal year 1969 and 1970 Increment in investment	3-1/4%

Interest rates are not stipulated by law and have been determined based on administrative policies in effect at the time the facilities were constructed or the investment increased.

The Secretary of the Interior issued an order dated January 29, 1970, establishing a new interest rate policy for repayment of the Federal investment in power projects.

The initial rate under the new policy is 4-7/8%. The order is applicable to new construction initiated after January 29, 1970, and to SPA's Federal investment beginning in fiscal year 1971. The 4-7/8% rate will be adjusted by not more than one-half of one percent each year until the rate equals the then current average yield rate on long-term U.S. Treasury obligations.

Note 7. Imputed costs for space furnished by GSA

The Corps does not include imputed costs for space rental since it is impractical to allocate this cost on a project basis. SPA discontinued the recording of imputed space rental beginning with fiscal year 1965 to conform to policies of other power agencies of the Department of the Interior, however, due to a change in policy, SPA has imputed space rental costs of about \$671,000 for fiscal years 1965 through 1970 and has included these costs in its accounts and financial statements.

Note 8. Contingencies

Contingent liabilities of the Southwestern Federal Power System on June 30, 1970, consisted of contractors claims against the Corps for construction of projects totaling about \$413,950 and against SPA for construction of transmission facilities of about \$750,000. On October 16, 1970, the claim against SPA was reviewed by the Board of Contract Appeals, U.S. Department of the Interior. The Board determined that SPA was liable, to some extent, on certain specific items. The actual liability is not now determinable because the contractor has not submitted support for its claims on the specific items.

On June 30, 1970, SPA had interest in any recovery collected by NW Electric Power Cooperative, Inc., and Central Electric Power Cooperative from settlements between the Cooperatives and various electrical equipment manufacturers. Subsequent to June 30, 1970, SPA's interest in the recovery was estimated to be \$101,179 and \$96,026 respectively. On June 30, 1970, SPA also owed and had recorded in its accounts payable \$42,493 due to NW Electric Power Cooperative, Inc. Payment was being withheld pending settlement of SPA's claim against NW.

Note 9. Adjustments to accumulated net loss

The following table explains the adjustments which have caused the net increase in the accumulated net loss of \$504,000 shown on Exhibits 1 and 2:

Note 9. Adjustments to accumulated net loss (continued)

(a) Cost of space furnished to SPA by other Federal agencies for fiscal years 1965 thru 1969		\$523,000
(b) Miscellaneous minor adjustments:		
Non-funded	-\$104,000	
Funded	<u>85,000</u>	<u>-19,000</u>
		<u>\$504,000</u>

Note 10. Estimated cost to complete projects under construction.

Seven generating projects were in various stages of construction on June 30, 1970. At that date the Corps estimated funds totaling \$119,336,000 would be required to complete the projects. Also at that date SPA had various transmission facilities under construction and estimated funds totaling \$2,609,000 would be required for completion.

Note 11. Extraordinary items

	Fiscal year <u>1970</u>	Fiscal year <u>1969</u>
	—————(000 omitted)—————	
Property losses	-\$138	0
Property gains	0	\$ 6
Miscellaneous income	<u>8</u>	<u>5</u>
Total	-\$ <u>130</u>	<u>\$11</u>

UNITED STATES OF AMERICA
SOUTHWESTERN FEDERAL POWER SYSTEM

STATUS OF REPAYMENT BASED ON COMPOUND INTEREST

AMORTIZATION OF COMMERCIAL POWER INVESTMENT

JUNE 30, 1970

COMPUTATION OF FUNDS AVAILABLE FOR REPAYMENT		
OF COMMERCIAL POWER INVESTMENT (note a):		
Operating revenues		\$333,289,910
Revenue deductions:		
Operation and maintenance expense	\$ 92,510,563	
Purchased power	90,775,934	
Service charges	68,216,264	
Interest expense	134,012,491	
Net retirements of fixed assets	<u>849,448</u>	
		<u>386,364,700</u>
		-53,074,790
Add depreciation accruals included in operation and maintenance expense		<u>23,338,418</u>
Total funds available for repayment of investment or deficit (-)		<u>\$-29,736,372</u>
APPLICATION OF AVAILABILITY TO REPAYMENT		
OF COMMERCIAL POWER INVESTMENT		
Commercial power investment at June 30, 1970 (note b)		<u>\$476,965,561</u>
Total repayments required at June 30, 1970 (note c)		\$ 56,931,870
Add repayment deficit		<u>29,736,372</u>
Status of repayment, surplus or deficit (-)		<u>\$-86,668,242</u>

^aData for this computation was based on costs recorded in the accounts of SPA and the Corps.

^bCommercial power investment excludes \$474,623 contributions in aid of construction.

^cTotal repayments required do not include payments on power investment added during fiscal year 1970.



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

Mr. Max Hirschhorn
Deputy Director
Resources and Economic
Redevelopment Division
U.S. General Accounting Office
Washington, D.C. 20548

JUL 2 1977

Dear Mr. Hirschhorn:

We have reviewed the General Accounting Office draft report entitled, "Review of Financial Activities of the Southwestern Federal Power System."

As you know, SPA requested this audit of financial statements and detailed review of its rate and repayment studies. We are pleased that, with some qualification, GAO has found that the financial results for the Southwestern Federal Power System for the fiscal year ended June 30, 1970, conform with accounting principles and standards prescribed by the Comptroller General, and appreciate the thorough review of procedures and data used in repayment studies.

Some of the recommendations in the draft report are theoretically persuasive but, from a practical viewpoint, cannot be imposed upon the SPA system--which has been operating for 28 years--without causing serious disturbances. Such disturbances as, for example, general rate increases necessary to satisfy frequently changing accounting theories may not be in the public interest. A financial deficit of over \$20 million conceivably could be increased to over \$200 million, casting serious doubt on SPA's ability to repay the Federal investment, with interest, within the prescribed 50-year period. Although SPA rates can be raised, existing and potential customers are not ready and willing to pay more for the same electric commodity and, to the extent that they can, customers will seek less expensive alternative sources of power. SPA does not have a captive market; customers who have long-term SPA supply contracts can cancel if they do not assent to rate increases. Since SPA does not have a full utility presence in the Southwest, it can maximize its revenues only within the framework of prevailing market prices for electric capacity and energy.

SPA recognizes the wisdom of preparing repayment studies in a manner which simulates, in the aggregate, the expected financial transactions of the Southwestern Federal Power System. Although repayment studies have not completely tracked with SPA accounting practices in the past, SPA will take steps necessary to make future studies truly financial

GAO note: The deleted comments relate to matters which were discussed in the draft report but omitted from this final report.

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long-range plans against which actual results can be measured. These actions, however, must be based upon overall Departmental policy pertaining to power operations.

Potential for Further Improvement in SPA's Operations

The 322 mw of winter capacity shown in the report (page 13) is a misleading summation of the incremental capacities available for the years 1971-1977, or an average of about 50 mw each winter. It is believed that a market for this amount can be found in the SPA area; the amount is insufficient to justify long-term commitments outside the SPA area to a system which can be reached only over long transmission distances, such as TVA.

The report suggests, on page 14, the possibility of exchange arrangements and cites that during the 10-year period from 1961 through 1970, SPA purchased approximately 3 billion kilowatt-hours and sold during the same period, approximately 5.2 billion kilowatt-hours. We agree that exchange arrangements are desirable. SPA has met with some success, although limited, in working out exchange arrangements and intends to continue its efforts in this direction. The above figures would lead to the conclusion that energy exchange arrangements could reduce existing levels of power purchases. While such exchanges are theoretically possible, we have not found them to be extensively attainable in practical operation. Energy exchanges are generally "Exchange in Kind" such as Peak and Off-Peak energy, and subject to mutual agreement at the time of each transaction. Each such transaction must be considered on its own economic merits. The obvious constraint on optimizing exchange arrangements is that hydroelectric energy cannot be stored, only the water which produces it can be stored.

We should point out that energy marketed by SPA at 1.5 mills per kilowatt-hour is "dump" or excess energy available during heavy rainfall periods and is not related to any outside purchases. The referenced 4-mill cost is associated with purchases to ensure the availability of committed firm and peaking power for which revenues average from 6 to 14 mills per kilowatt-hour depending on customer load factor and conditions of sale.

We concur with the comment, on page 15, that an increase in energy rates must be seriously considered because of the increasing cost to SPA for energy purchases and the increasing value of energy due to higher fuel costs. However, SPA's total rate structure would need to be reviewed since SPA revenues should not be greater than required to recover costs. It would follow then that any increase in revenues from certain energy sales should require offsetting reductions in revenues from capacity sales, unless such increase in energy revenues were directly related to an increase in costs.

Recommendation to the Secretary of the Interior and the Board of Directors, Tennessee Valley Authority. (Page 16)

We agree that the feasibility of a power exchange between SPA and TVA should be studied as recommended. The economics of potential exchange arrangements should include the costs for wheeling power through neighboring systems, between SPA and TVA and the alternative costs for constructing a transmission link between the eastern SPA grid and TVA. The benefit-to-cost ratio for the most feasible alternative should be greater than unity.

Status of Repayment of Reimbursable Costs from Power Revenues

The report, on page 17, raises questions about the validity of the February 1971 repayment study. SPA prepares rate and repayment studies which incorporate:

- (a) historical financial results
- (b) projections of future costs, revenues, loads and resources
- (c) certain operating assumptions about the future
- (d) certain accounting conventions which have been generally accepted in the past by GAO, the Department of the Interior and the Federal Power Commission.

Within this framework, the 1970 and 1971 repayment studies analyzed by GAO do demonstrate repayment within 50 years. The extent to which (b), (c) and (d) are changed in future studies, will determine whether or not repayment can still be achieved with the existing rates.

Weaknesses Inherent in Rate and Repayment Studies

In the first two paragraphs on page 18, the report describes and takes exception to the method of scheduling project and system repayment within the 50-year limitation.

We are unaware of any legal requirement or accounting convention which renders the described project repayment procedure unacceptable. We favor it because it permits repayment on projects which by themselves are financially unfeasible, and holds down system power rates to an economically competitive level.

The status of repayment is clearly shown in the "Power Investment" columns of Table 2 in the SPA studies. Historical figures are actual

and projected figures are as valid as the forecasts and assumptions which support them. The development of an amortization schedule for comparative purposes is not considered necessary or desirable, particularly if it leads to a conclusion that, all other variables held constant, the SPA system rates are too low. We do not believe it is in the public interest or in keeping with the intent of the Congress in authorizing Federally-financed power facilities in the Southwest to raise rates to satisfy an arbitrary accounting procedure.

The report, on pages 19 and 20, cites three other situations which it says also contribute to the speculative nature of these repayment studies.

1. Cumulative price level increases of 20 percent for operation and maintenance costs were projected for only a three-year period (fiscal years 1971-1973) and cost projections were held constant throughout the remainder of the repayment period.

We agree that continuing inflation should be considered in all rate submissions. The most important test of the rate submission, however, is simply: Is the requested rate for the sale of power sufficient to recover all expected costs and meet the necessary amortization requirements during the period the rate will be applicable?

In the case of the February 1971 Study, inflationary factors were included and tested against the proposed rate for the three-year period for which the rate approval was requested. Continuing inflationary components on the expense side of the ledger emphasizes two critical issues: (1) just how many years beyond the rate filing should costs continue to be escalated and (2) is it reasonable to continue escalation of costs without also forecasting future rate increases? We believe it is more prudent to hold costs and revenues constant beyond the rate filing timeframe.

2. Revenue and cost estimates vary from original estimates because of many factors.

Repayment studies contain the best available estimate of timing for commercial power operations of projects under construction as well as estimated repayable project annual and investment costs. These are furnished by the Corps of Engineers. These estimates can change, and do change. Interim tests (between FPC rate approval effective dates) are made to determine the effect on payout of significant timing and cost changes. These assist in management decisions concerning need for future rate revisions. The responsibility for improvement rests with the Corps.

APPENDIX II

The example of the estimated power cost estimates increasing for the Harry S. Truman project from figures used in 1971 of \$55 million in service 1978 to 1972 estimates of \$61 million in service 1985 is well taken. We would be surprised if, based on past experience, costs were not again increased significantly from the present estimate by the time the project is on-line.

3. Tentative cost allocations are subject to retroactive adjustment.

Negotiations will commence shortly between SPA and the Corps at division level to develop agreed upon cost allocation reports for eight projects for which cost allocations are termed "tentative." Upon satisfactory completion of this project, firm cost allocations will not mean that costs cannot change, because power investments change by virtue of capitalized retirements and additions. These costs are influenced by price levels in the same manner as operation and maintenance costs. Firm cost allocations would mean, however, that the percentages of allocated joint and residual joint costs would be stabilized.

Deficiencies in Practices Followed by SPA in Projecting Costs and Revenues

Regarding the method of allocating revenues in the repayment studies (pages 21-22), SPA is aware that it is not consistent with the actual allocation of revenue on the financial statements, especially in regard to the allocations of revenue by the Corps of Engineers. The Departmental method will be used in the future.

SPA proposes to work out a revised allocation procedure with the Corps of Engineers wherein SPA will have responsibility and authority for allocating all revenue so that such allocations for the financial records will track with repayment study projections.

The report also takes exception to the method used in computing interest credits and interest expense.

These matters, discussed on pages 22-24, are under consideration respecting all power activities of the Department and we are developing policies for uniform application. These will be discussed with the Corps at an early date. We prefer, therefore, to forego comment on those matters at this time except to say that viewpoints differ among professionals as to the rationale for procedures in these areas and our judgment must take into consideration not only the various accounting theories but also the various management responsibilities of the Department.

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We acknowledge the understatement of \$1,031,000 in the February 1971 repayment study for three items of investment and this amount will be included as repayment responsibility. In addition to this entry and the lack of emphasis placed upon depreciation accounting in repayment analysis, provision will be made to include all future charges to account 108 "Accumulated Provision for Depreciation of Electric Plant in Service" which result from losses on property retired from service.

As stated on page 25, the Administrator of SPA advised that the cost to replace SPA transmission facilities would be estimated for future rate and repayment studies. Adequate allowances, although not specifically identified as such, were made in the rate and repayment study for replacement of transmission facilities. However, for audit and management review purposes, future rate and repayment studies will specifically identify allowances for replacement of SPA's transmission facilities.

Duplicate transmission costs (page 25) will not be included in future rate and repayment studies. Subsequent to the GAO audit, SPA completed arrangements for marketing power from the Stockton Project which eliminated the need for construction of transmission facilities and the payment of wheeling charges. SPA will attempt to negotiate a similar arrangement for marketing the output of the Harry S. Truman Project. However, pending resolution of this matter, it will be necessary to include the estimated cost of construction of transmission facilities to integrate the Harry S. Truman plant with SPA's system (as the least-cost alternative) in future rate and repayment studies.

Recommendation to the Secretary of the Interior (page 26)

SPA will prepare a revised rate and repayment study prior to the expiration of the current rate approval in 1974, sooner if significant changes in cost projections occur. Any future study will be consistent with stated Department of the Interior policies, including those which bear directly on the comments and recommendations of the GAO report.

Need for Improved Reporting on Status of Repayment

[See GAO note, p. 48.]

APPENDIX II

As a general comment on this area of "need for improved reporting" the separation of the Southwestern Federal Power System into two distinct accounting entities presents problems in making operating results available on a current, timely basis for management purposes. Although SPA has the repayment responsibility for all costs associated with the operation, maintenance and amortization of the power production portion of the projects, the Corps is unable to furnish its current accounting information to SPA until three months after a fiscal year is completed. The Corps of Engineers has informed SPA that it is not able to furnish this vital information at interim periods during the year. Without this information, as GAO indicates, it is not possible to judge or completely manage SPA's full scope of responsibilities.

Recommendation to the Secretary of the Interior

Pages 27 through 29 deal with the concept of scheduled amortization which has been a subject in a number of GAO reports. The Department's position on that subject has been clearly stated, most recently in connection with the GAO report of February 28, 1972, on: "Improvements Needed in Financial Activity of the Federal Hydroelectric System in the Missouri River Basin."

SPA or any other repayment plans are only as good as the estimates involved. Estimates that are made for a long period of time become less accurate with each passing year and in time become meaningless. The SPA repayment study projects investments, revenues and costs as accurately as possible for the period of FPC rate review, which may be two, three or five years, or at most the year the last system project under construction is expected to become operative. When a study demonstrates a 50-year repayment, it is assumed that, with the rates used, payout is on schedule and meets the requirements of Section 5 of the Flood Control Act of 1944. A supplementary annual comparison of actual results with estimated payout results is detailed, customer by customer, cost by cost, and project by project, so that major deviations can be analyzed for long-range effect. Such a comparison is presented annually to Congress.

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Recommendations to the Secretaries of the Interior and the Army (page 31)

We concur with the GAO recommendation regarding cost allocations and SPA is prepared to take appropriate supporting action at the field level.

Recommendation to the Secretary of the Army (page 32)

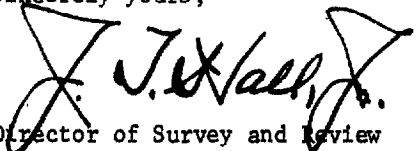
As to the recommendation that the Corps of Engineers be required to record in its accounts, for recovery in power rates, appropriate amounts for the cost of space furnished by GSA, Section 5 of the Flood Control Act of December 22, 1944, states:

"Rate schedules shall be drawn having regard to the recovery (upon the basis of the application of such rate schedules to the capacity of the electric facilities of the projects) of the cost of producing and transmitting such electric energy..."
(Underscoring supplied)

We concur in principle with the inclusion of costs associated directly with the Corps' responsibility for producing power from its projects. However, we are not in favor of an arbitrary or general allocation of costs associated with office space furnished by GSA and used by the Corps in its total operations.

The opportunity to review the draft report is appreciated.

Sincerely yours,


Director of Survey and Review



DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, D.C. 20310

15 MAY 1972

Mr. Richard W. Gutmann
Acting Director
United States General Accounting Office
441 G Street, N.W.
Washington, D. C. 20548

Dear Mr. Gutmann:

This is in response to your letters dated 29 February 1972 and 7 April 1972, to the Secretary of Defense and the Chief of Engineers, respectively, pertaining to a draft of a proposed report to the Congress on a review of the Southwestern Federal Power System (SWFPS).

I am pleased to note the report concludes that, subject to adoption of firm cost allocations for eight operating projects of the Corps, the financial statements present fairly the assets and liabilities of the SWFPS. In addition to cost allocations, only two of the other report recommendations and suggestions pertain to areas for which the Corps has a basic responsibility. These relate to accounting procedures for interest credit computations and treatment of costs for space furnished by others.

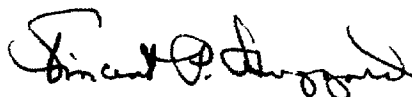
The need for timely development and adoption of firm cost allocations is recognized. The Corps has initiated actions to firm up the allocations for all operating projects in the SWFPS and expects to fully coordinate and adopt them prior to your next review of the SWFPS.

With respect to the accounting matters, interest credit computations are in accordance with the Corps accounting manual and treatment of rent free space costs is in accordance with the Corps' interpretation of General Accounting Office standards. The Corps of Engineers is engaged in a wide variety of activities where there is no requirement to allocate rent space costs. If it were to instigate a rent space cost allocation procedure, the entire cost of establishing and managing such a procedure must be charged to the water resources project accounts. The value of the rent free space being considered amounts to less than $\frac{1}{2}$ of 1% of the program costs and, therefore, is not regarded as a significant cost item. In addition, the administrative cost of determining the portion of space costs to be allocated to Southwestern Power Administration could easily exceed the costs allocable for reimbursement. Therefore, there is little merit in allocating costs of this type.

Among those comments made by this Department (letter dated 29 March 1971, copy attached) in connection with the GAO report on the Missouri River Basin (OSD Case #3224) was the suggestion that arrangements be made for a meeting between Corps and GAO representatives to discuss resolution of accounting problems. I believe that resolution of the accounting matters discussed in this report can also be effected during this meeting. I understand that preliminary arrangements for the meeting have been discussed between representatives of the GAO and Office of the Chief of Engineers.

The opportunity to review the draft report is appreciated.

Sincerely,



1 Incl [See GAO note.]
as

Vincent P. Huggard
Deputy Assistant Secretary of the Army
(Installations and Logistics)

GAO note: The enclosure is not included in this report because the pertinent part has been cited in the above paragraph.

APPENDIX IV

FEDERAL POWER COMMISSION
WASHINGTON, D.C. 20426

IN REPLY REFER TO:

APR 21 1972

Mr. Max Hirschhorn
Associate Director
Civil Division
General Accounting Office
Washington, D. C. 20548

Dear Mr. Hirschhorn:

This is in response to your letter of February 29, 1972, inviting comments by the Commission relative to the Comptroller General's proposed report to the Congress, entitled "Review of Financial Activities of the Southwestern Federal Power System." Certain corrections to the proposed report were furnished in Assistant Director Campbell's letters of March 3 and April 7, 1972.

The proposed report finds that the operating results of the system, comprising the projects constructed and operated by the Corps of Engineers and the power marketing activities of the Southwestern Power Administration, show a substantial deficiency in the repayment requirements. It notes, however, that there have been some improvements in the system's operating results since 1967 owing principally to the elimination of certain unfavorable contract provisions and the recently improved stream-flow conditions. The report also finds that there are deficiencies in the Southwestern Power Administration's rate and repayment studies that should be corrected in a revised study.

The Federal Power Commission has recognized for a number of years that the revenues from power marketed in the Southwestern Federal Power System were not sufficient to repay the power costs. Commission orders have pointed out that major factors contributing to the repayment deficiency were the unfavorable terms and conditions in certain power marketing contracts rather than the level of rates. The Southwestern Power Administration (SWPA) has been urged to seek improvement in the financial position of the system through elimination of the adverse conditions from these existing contracts.

Mr. Max Hirschhorn

Within the last few years, SWPA has made important progress in its efforts to correct the adverse financial effects of these contracts. Revised rate schedules and contractual rates and charges submitted by SWPA and approved by the Commission in 1970 and 1971 will have the effect of improving substantially the financial position of the system relative to contracts with Associated Electric Cooperative, Tex-La Electric Cooperative, Oklahoma Gas and Electric Company, Public Service Company of Oklahoma, and Southwestern Electric Power Company.

Associated has objected to the adjustment made in its rate schedules and has taken the matter to court where it is now pending. Also, as a result of SWPA's increase in the contractual rates and charges under which the output of the Federal Narrows Dam project is sold to Tex-La Electric Cooperative, Tex-La has filed court action to nullify the SWPA rate increase. Since the entire output of the Narrows Dam project is sold to Southwestern Electric Power Company by Tex-La for the same amount it pays SWPA for the power, SWEPCO has notified the Commission of its intent to cancel its contract with Tex-La. The Commission stayed the cancellation until August 9, 1972. Further, we understand that the Oklahoma Companies are not giving recognition to the rate increases imposed on them.

The Commission's order of November 30, 1971, approved SWPA's revised rate schedules and the contractual rates and charges for a period ending not later than May 31, 1974. In filing for Commission approval of its system rates beyond that date, SWPA will need to furnish a new rate and repayment study. This new study will take account of the progress made in improving the financial position of the system. The study should also eliminate the deficiencies of previous studies noted in the Comptroller General's proposed report. Some of these deficiencies have been noted in previous Commission reviews, particularly SWPA's computation of excess interest credits on revenues deposited in the U. S. Treasury.

The proposed report suggests that, in addition to publishing rate and repayment studies for the power system, SWPA should develop and publish supplementary statements comparing the annual and cumulative repayments with scheduled repayments established on the basis of repaying the investments within the required periods. Such comparisons would show whether or not scheduled repayments were being met. The Commission believes that such supplementary statements would be useful in appraising the adequacy of the level of rates. However, the statements should conform to the order of priority in allocating power revenues that has been established by the Department of the Interior and reported to the Congress.

The report recommends that the Department of the Interior and the Tennessee Valley Authority study the feasibility of an exchange of power between the SWPA and TVA systems, in view of the possibility of a mutual benefit and the potential for increasing revenues to the SWPA system.

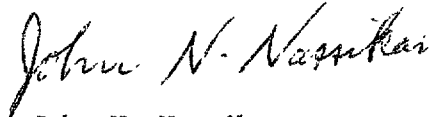
APPENDIX IV

Mr. Max Hirschhorn

The Commission favors interconnections between power systems where such financial benefits may be possible as well as improvements in reliability realized.

The opportunity to comment on the proposed report is appreciated.

Sincerely,

A handwritten signature in cursive script that reads "John N. Nassikas".

John N. Nassikas
Chairman

TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

March 15, 1972

Mr. Max Hirschhorn
Associate Director
United States General Accounting Office
Washington, D. C. 20548


Dear Mr. Hirschhorn:

Mr. Wagner has asked me to reply to your letter of February 29 concerning your proposed report entitled "Review of Financial Activities of the Southwestern Federal Power System." You have asked that we review and comment on the matters discussed, particularly the need for a study to ascertain the feasibility of power exchange arrangements between SPA and TVA.

In previous meetings between representatives of TVA and the Southwestern Power Administration, the SPA has indicated that its arrangements with the Southwest Power Pool already take advantage of seasonal diversity and capacity exchanges. TVA's experience has been that it is difficult to justify an inter-connection for the single or primary purpose of economy interchange. However, we will be glad to review this question further and comment on any benefits which might accrue from such interchanges of power if the TVA Act were amended to permit interchanges of power with SPA.

You may expect further comments as soon as our review can be completed.

Sincerely yours,


for James E. Watson
Manager of Power

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

May 4, 1972

Mr. Max Hirschhorn
Associate Director
United States General
Accounting Office
Washington, D. C. 20548

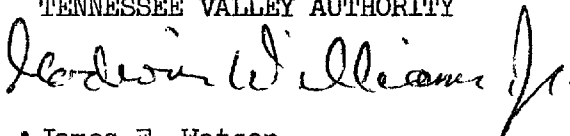
Dear Mr. Hirschhorn:

This is in further reply to your letter of February 29 to Mr. Wagner concerning possible power exchange arrangements between the Southwestern Power Administration and TVA. We have written SPA about this subject, but we have received no additional detailed information from them.

To the best of our knowledge, SPA has no power resources at the present time that appear to warrant further investigation if the TVA Act were amended to permit interchanges of power with SPA. If SPA should advise us in the future of changes in its circumstances, we would be pleased to look into the question further.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


James E. Watson
Manager of Power

CC: Mr. Peter C. King, Administrator
Southwestern Power Administration
Post Office Box 1619
Tulsa, Oklahoma 74101

PRINCIPAL OFFICIALS OF THE
DEPARTMENT OF THE INTERIOR
AND THE DEPARTMENT OF THE ARMY
RESPONSIBLE FOR THE ADMINISTRATION OF ACTIVITIES
DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
<u>DEPARTMENT OF THE INTERIOR</u>		
SECRETARY OF THE INTERIOR:		
Stewart L. Udall	Jan. 1961	Jan. 1969
Walter J. Hickel	Jan. 1969	Nov. 1970
Fred J. Russell (acting)	Nov. 1970	Dec. 1970
Rogers C. B. Morton	Jan. 1971	Present
ASSISTANT SECRETARY--WATER AND POWER DEVELOPMENT:		
Kenneth Holum	Jan. 1961	Jan. 1969
James R. Smith	Mar. 1969	Present
ADMINISTRATOR, SOUTHWESTERN POWER ADMINISTRATION:		
Douglas G. Wright	Sept. 1943	July 1969
Peter C. King	July 1969	Present
<u>DEPARTMENT OF THE ARMY</u>		
SECRETARY OF THE ARMY:		
Stanley R. Resor	July 1965	June 1971
Robert F. Froehlke	July 1971	Present
CHIEF--CORPS OF ENGINEERS:		
Lt. Gen. William F. Cassidy	July 1965	Aug. 1969
Lt. Gen. Frederick J. Clarke	Aug. 1969	Present