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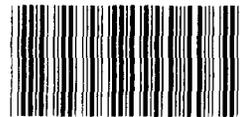
# Report To Senator James Sasser

OF THE UNITED STATES

## TVA's Nuclear Fuel Sale And Leaseback Arrangement Needs Further Analysis And Congressional Oversight

To defer rate increases resulting from interest payments on growing nuclear fuel inventories, TVA entered into, without adequate analysis, a nuclear fuel sale and leaseback agreement. The arrangement while technically correct and similar to that used by other utilities has been questioned by the Office of Management and Budget and others because of its impact on Federal borrowings and interest rates and the Federal Financing Bank's role in financing the transaction.

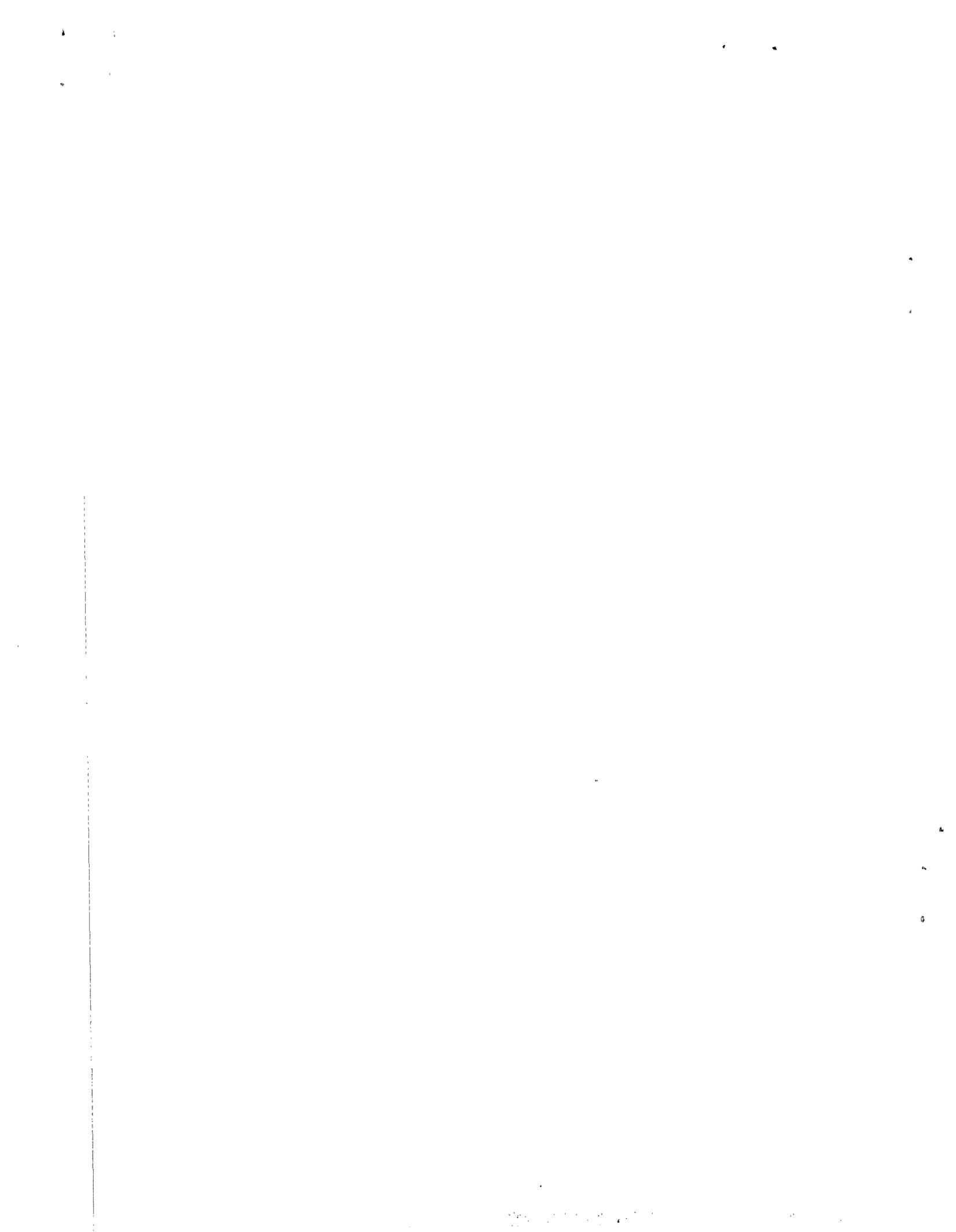
GAO recommends that TVA's ongoing analysis determine the full costs of this arrangement to TVA and ratepayers over its 30-year life. Additionally, GAO recommends the Congress provide more oversight before similar transactions are made.



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

B-202899

The Honorable James Sasser  
United States Senate

Dear Senator Sasser:

As part of our continuing oversight of the Tennessee Valley Authority (TVA), we recently evaluated the financial soundness of TVA's sale and leaseback of nuclear fuel. After briefing you on our work you requested that our analysis be broadened to include

- a complete chronology of the events leading up to the sale and leaseback agreement;
- information on whether this is a standard utility practice and, to the extent possible, a comparison of TVA's agreement with other utility agreements; and
- an analysis of the financial transactions between Seven States Energy Corporation, which purchased the nuclear fuel, and the Federal Financing Bank (FFB).

Appendix I discusses the objectives, scope, and methodology used in addressing the above issues. Detailed answers addressing your concerns are included in appendices II, III, and IV, respectively. In appendix V, we have included our analysis and evaluation of the transaction.

REASON FOR NUCLEAR SALE  
AND LEASEBACK ARRANGEMENT

Through the early 1970s demand for TVA's electric power increased about 7 percent annually. Future demand was expected to increase at the same rate. To meet this projected demand, TVA undertook a program to build 17 nuclear units. Because of these planned units, TVA began contracting for nuclear fuel to assure fuel was available when needed by the plants. Demand, however, fell far below the 7 percent rate, and as a result TVA decided to defer or slow down construction schedules for several units. Consequently, TVA found itself with significant nuclear fuel inventories in the late 1970s and projections that its inventories would grow.

With nuclear fuel inventories growing, TVA realized that interest costs on loans to finance the nuclear fuel would have to be passed on to the ratepayer. As a move to keep power rates down, TVA believed it could sell the nuclear fuel and lease it back as needed. This would allow TVA to defer the interest cost on holding the nuclear fuel to some later period. Consequently, TVA entered a sale and leaseback arrangement with Seven States Energy Corporation (Seven States) in October 1979. Thus, TVA shifted the financial burden of paying for interest costs on nuclear fuel from current to future ratepayers. The subject of TVA deferring interest on its construction financing is currently at issue in a court case brought by ratepayers.

#### SPECIFICS OF ARRANGEMENT

TVA and Seven States have a 30-year contract which can be terminated on a 120-day notification. The arrangement provided that

- TVA would pay legal fees (amounted to \$34,000) to set up a new corporation (Seven States) to handle the transaction;
- TVA would pay a management fee of \$96,000 per year;
- TVA would maintain physical possession and be responsible for all risks associated with the nuclear fuel, and pay all insurance and fees required for such;
- TVA would pay audit costs of Seven States; and
- Seven States would have legal ownership of the fuel.

We found the agreements to be similar to fuel sale and leaseback arrangements made by other utilities even though the reasons for entering such arrangements are different. (See appendix III).

#### FINANCING AND OPERATIONS OF ARRANGEMENT

The nuclear sale and leaseback arrangement is financed through a \$2 billion line of credit from the FFB to Seven States through TVA. Initially, Seven States purchased \$490 million worth of TVA's inventory. This money was received by TVA directly from FFB making the transaction operate as if it were a direct loan from FFB to TVA, with Seven States serving as a vehicle to account for the transaction. In reviewing Seven States, TVA, and FFB's financial transactions, we found their financial records in order. (See appendix IV).

One aspect of the transaction--use of the FFB--has received much attention from different groups. In January 1981, the Office of Management and Budget (OMB) expressed concern that this type of transaction removes the liability from the agency's financial statements and, thus, understates the actual level of liabilities Federal agencies have incurred. OMB was also concerned about the impact these Federal borrowings may have on competition for money in the capital markets and the impact on interest rates. Most recently the Washington University Center for the Study of American Business in St. Louis questioned whether TVA and FFB should be able to commit \$2 billion of Federal funds without congressional oversight and whether TVA's involvement in such a transaction could set a precedent for other agencies to use FFB loans through agency guarantees. A recent January 1982 Journal of Commerce editorial discussed this topic with a message that such use of the FFB should receive congressional approval.

Further, the accounting profession is now reviewing transactions that take items off utilities' financial statements. Such actions result in financial statements that do not reflect full liabilities. If the profession should rule that these transactions must be reflected on financial statements, TVA would then have to show the loans on its records and pass interest costs along to current ratepayers.

INADEQUATE ANALYSIS PERFORMED  
TO SUPPORT ARRANGEMENT

We found the sale/leaseback arrangement complex and a unique transaction for TVA, one which should have required TVA's detailed analysis prior to agreement. A detailed analysis is especially important because the transaction (1) impacts not only on current electric rates but on ratepayers over a 30-year period, (2) results in deferring interest costs which enables TVA to avoid applying a requirement of the TVA Act, (3) takes certain financial data off the financial statements which is a controversial issue in the accounting profession, and (4) requires the Department of the Treasury to seek additional borrowing to handle loans through FFB. (See appendix V.)

A detailed analysis was not performed by TVA, however. The only study performed at the time the TVA Board approved the sale and leaseback proposal was a 10-year revenue requirement analysis, even though the contract is for 30 years. During our review, we asked TVA to provide an analysis to reflect the benefit and cost of the arrangement over the life of the contract. An analysis was provided which we found inadequate. Assumptions used were not realistic and did not reflect the most current data. We brought these weaknesses to TVA's attention. Another study was

done but was not transmitted to us because TVA officials reviewing the study termed it inadequate. TVA has continued to perform a study and we have been informed over the past several months that one would be provided. However, as of March 8, 1982, no study has been provided. (See appendix V.)

### CONCLUSIONS

TVA has not adequately assessed the arrangement from a benefit and cost perspective. TVA had only conducted a 10-year revenue requirement analysis even though the contract is for 30 years. To properly assess the benefits and costs of this transaction, a comprehensive 30-year study needs to be done. Without such a study, TVA is not in a position to know the long-term impact of the transaction on TVA and the ratepayer, its future financing, and whether, if ever, the contract should be terminated.

Further, OMB and others have raised the issue of this transaction being an example of how Federal Government off-budget transactions impact on the competition for capital market funds and, thus, impact on interest rates. While we recognize that TVA is guaranteeing the FFE debt, it nonetheless does contribute in a macroeconomic perspective to Federal competition in the money markets.

### RECOMMENDATION TO TVA

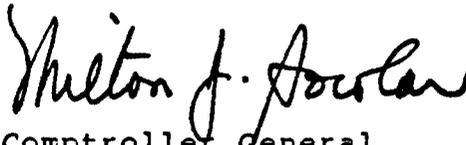
We recommend that TVA's ongoing analysis include a 30-year benefit and cost study which assesses the full costs of the transaction to TVA and to the ratepayer. In conducting this study, TVA, at a minimum, should include the most current demand forecast including the low, medium, and high forecast; the current nuclear power plant construction schedule; the cost of money including sources of financing when the \$2 billion FFB ceiling is reached; and the full effect of deferring interest.

### RECOMMENDATION TO THE CONGRESS

We recommend legislative oversight Committees of the Congress review and establish an approval mechanism for similar type transactions in the future because of their potential impact on the Federal Government's overall borrowing. The current transaction will need additional money by the late 1980s, when TVA exceeds the \$2-billion loan commitment now approved. Congressional review should decide if an increase is warranted.

As you requested we did not obtain TVA comments and the report will be restricted until the day of the Senate Appropriation hearings on TVA.

Sincerely yours,

*for*   
Comptroller General  
of the United States

OBJECTIVES, SCOPE, AND METHODOLOGY

We were reviewing TVA's nuclear fuel sale and leaseback arrangement to evaluate and assess the soundness of the transaction when Senator Sasser asked that we broaden our review to include

- a complete chronology of the events leading up to the sale and leaseback agreement;
- information on whether this is a standard utility practice and, to the extent possible, a comparison of TVA's agreement with other utility agreements; and
- an analysis of the financial transactions between Seven States, which purchased the nuclear fuel, and the Federal Financing Bank (FFB).

In conducting our evaluation, we (1) ascertained the events and circumstances leading up to the arrangement, (2) compared the arrangement with practices followed by other utilities, (3) analyzed the financial transactions between Seven States Energy Corporation (Seven States) and FFB, and (4) identified and assessed the conditions and impacts of the arrangement on TVA and its ratepayers.

To ascertain how the sale and leaseback arrangement was established, we interviewed the officers of Seven States, Inc., in Los Angeles, California; TVA officials in Chattanooga and Knoxville, Tennessee; and FFB officials in Washington, D.C. We obtained and reviewed background information on Seven States and associated companies and determined how company officials became involved in the sale and leaseback business, how the TVA business association developed, and what the sale and leaseback arrangements were. We also spoke with officials of Goldman Sachs and Co., to learn about their relationship with TVA in attempting to establish a nuclear fuel sale and leaseback arrangement with the agency. To determine how this arrangement compares with electric utility practices, we contacted officials of several investor-owned utilities 1/ to discuss why they entered such arrangements.

In analyzing the financial transaction between Seven States and FFB, we reviewed the files and financial records of all parties to obtain a full understanding of the transaction. We also reviewed the audit work papers of Seven States' auditors (Arthur Andersen & Co.) and discussed the details of their work with a representative of the accounting firm.

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1/Virginia Electric and Power Company, Public Service Company of Indiana, Illinois Power Company, and Duke Power Company.

In identifying and assessing the conditions and impacts of the arrangement we (1) obtained and evaluated TVA's documentation supporting the decision, (2) discussed the rationale for the arrangement, (3) evaluated the structure of the transaction, and (4) looked at the accounting implications.

In this portion of the work, we reviewed the TVA Act (16 U.S.C., Sec. 831), TVA's internal and external correspondence, available documentation relating to nuclear fuel arrangements, and TVA's records and financial statements. We specifically reviewed section 15d(f) of the TVA Act which discusses what TVA must consider in developing power rates, and analyzed TVA's 1960 bond resolution, particularly the two financial tests which guide TVA's ratemaking process.

We examined how TVA handles its entire nuclear fuel inventory process from determining needs to loading the nuclear fuel rods into the reactor. We conducted numerous interviews with TVA officials in the Nuclear Fuels Procurement Group, Raw Materials Branch, Nuclear Fuels Planning Branch, and Power Accounting. All of these groups fall within the Division of Power. In addition, we reviewed pertinent internal and external correspondence and documents and analyzed reports concerning TVA's nuclear fuel inventory program.

To analyze the structure of the sale and leaseback arrangement, we interviewed officials from TVA's General Counsel and reviewed pertinent legal documents and internal and external correspondence on the matter. From a technical accounting standpoint, we contacted public accounting firm representatives (Arthur Andersen & Co.), an official from the Securities and Exchange Commission, an official of the Financial Accounting Standards Board, and an official from a bond rating agency (Standard and Poors). We also reviewed a January 1981 report of the Office of Management and Budget ("Report on Strengthening Federal Credit Management"), a university study ("The Unrestrained Growth of Federal Credit Programs" by the Center for the Study of American Business, Washington University), and a January 1982 editorial by the Journal of Commerce which discussed the transaction. Our review was performed in accordance with GAO's current "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions."

CHRONOLOGY OF EVENTS OF TVA NUCLEARSALE AND LEASEBACK

Through the early 1970s, the demand for TVA's power grew about 7 percent a year with projections that demand would continue to grow at this rate. Based upon past growth and projected increases in electric demand, TVA embarked upon a nuclear construction program of 17 units to be finished throughout the 1970s and 1980s. To assure adequate nuclear fuel for these plants, TVA also arranged and contracted for its nuclear fuel to be supplied years into the future.

Because the cost of nuclear fuel can be significant to electric utilities, an innovative low-cost financing method (sale and leaseback of nuclear fuel) was developed by several private investment banking firms. In the mid 1970s,--Goldman Sachs and Co., and the principals 1/ of what was to become M&W Resources, Inc.--approached TVA to discuss the possibility of developing a nuclear fuel sale and leaseback arrangement which was beginning to catch on with other electric utilities. TVA declined both proposals because it did not have any recurring credit or cash flow problems and could obtain a low interest rate from the Federal Financing Bank (FFB).

In September 1978, TVA was again contacted by Goldman Sachs and Co., concerning a nuclear sale and leaseback arrangement. At that time, TVA began to seriously consider the proposal because its nuclear fuel inventory was valued at about \$400 million and was expected to reach \$1 billion in a few years. Lagging nuclear power plant construction schedules and growing doubt about the need for these plants as demand growth dropped substantially from the 7 percent a year of the early 1970s 2/ were the reasons for TVA's reconsideration. As a consequence of the inventory buildup, interest cost on the fuel was expected to increase and would have to be passed on to the ratepayers, as required by the TVA Act. By entering such a proposal, TVA found it could defer charging its ratepayers for the interest cost associated with the nuclear fuel. In effect, TVA could shift the financing costs of the fuel from the current to future ratepayers.

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1/In the mid 1970s, the principals were employed by Bradford Energy and Commodity Finance Group. They formed M&W Resources, Inc., in January 1977. This company eventually set up the lease financing arrangement with TVA.

2/TVA's 1980 through 1990 forecast showed a demand range of .4 to 2.4 percent.

Under the Goldman Sachs and Co., proposal, a corporation would be established to purchase the nuclear fuel and finance the purchase from the sale of commercial paper. The corporation would hold title to the nuclear fuel, and as it was burned, TVA would pay for the fuel and any associated interest. Consequently, the interest expense on the unused nuclear fuel could be deferred, and TVA would not have to pass along these deferred costs to its rate-payers until the fuel was consumed.

On March 20, 1979, the TVA Board of Directors authorized TVA to enter negotiations for a nuclear fuel sale and leaseback arrangement with Goldman Sachs and Co. At the time the Board made this decision, the only study performed by TVA and submitted to the Board was a 10-year revenue requirements analysis. For structuring and administering the transaction, Goldman Sachs and Co., was to receive a management fee of about \$500,000 per year (1/8 of 1 percent per annum on the amount of fuel financed). To assure no financing problems, TVA requested from FFB a \$1-billion commitment to serve as a backup source of cash in the event commercial paper could not be sold. On March 28, 1979, FFB informed TVA that it was prepared to independently finance a nuclear fuel sale and leaseback arrangement, not just be a backup source of financing.

On the same day, M&W Resources Division 1/ contacted TVA regarding a sale and leaseback arrangement. M&W Resources Division learned of TVA's interest in this area through a sister corporation which does business with TVA in the nuclear area. M&W Resources Division proposed handling the transaction for a management fee of \$60,000 to \$96,000 per year, considerably less than the Goldman Sachs and Co., proposal. On April 6, 1979, TVA initiated negotiations with M&W Resources Division. Although Goldman Sachs and Co., lowered its management fee offer to \$125,000, TVA discontinued negotiations with them. TVA found M&W's management fee more acceptable and felt their financing approach using Federal rather than commercial financing less expensive and more flexible. TVA did not seek other proposals nor initiate discussions with any other firms. Although TVA contacted other utilities regarding the costs and terms of these arrangements, it at no time obtained additional offers to assure it was receiving the best possible terms. TVA said the contacts they made showed that M&W Resources Division had a good reputation for these type transactions and that was sufficient from their standpoint.

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1/This organization, formerly M&W Resources, Inc., was acquired on November 1, 1978, by Impell Corporation (an energy services holding company). M&W Resources Division was situated within Impell's financial services subsidiary Keith, Feibusch, and Co. On January 31, 1981, Impell Corp., sold M&W Resources to Security Pacific Bank.

On October 25, 1979, the TVA Board of Directors authorized the transaction through M&W Resources Division and on October 31, 1979, TVA entered a 30-year, \$2-billion nuclear fuel sale and leaseback arrangement (contract can be terminated with 120-day notification). No further analysis was performed by TVA beyond the original 10-year revenue requirement analysis done about one year earlier.

As part of the arrangement, TVA paid \$34,000 in legal fees for M&W Resources Division to set up a new corporation, Seven States Energy Corporation (Seven States), just to handle this transaction. Further, TVA agreed to pay Seven States a management fee of \$96,000 per year, all insurance and fees required for the nuclear fuel, and audit and other costs incurred by Seven States. TVA is still responsible for all risks associated with the nuclear fuel and maintains physical possession with Seven States having legal ownership.

In setting up the financing for the nuclear fuel sale and leaseback, FFB extended Seven States a \$2-billion line of credit 1/ to be used to purchase TVA's nuclear fuel inventory. FFB conducted no credit investigatory work on either TVA or Seven States before approving the line of credit because TVA is a Federal entity guaranteeing the loan. In reality, the loan operates as if it were a direct loan to TVA rather than a loan to Seven States. For example, Seven States can not borrow from FFB without TVA's approval and all funds borrowed go directly to TVA. Likewise, all loan repayments go directly from TVA to FFB. Seven States merely serves as a vehicle to account for the transaction, since it has no risks, pays nothing, and does not even have physical possession of the nuclear fuel.

To illustrate, Seven States initially purchased \$490 million of TVA's nuclear fuel inventory. TVA received the cash directly from FFB. From Seven States' perspective, this was merely a paper transaction which allowed TVA to transfer the loan and nuclear fuel to its books. TVA, through this arrangement, can have the interest expense added to the cost of the fuel and defer charging its ratepayers for these costs. If this transaction had not taken place, the interest expense would have been paid by the ratepayer as it was incurred.

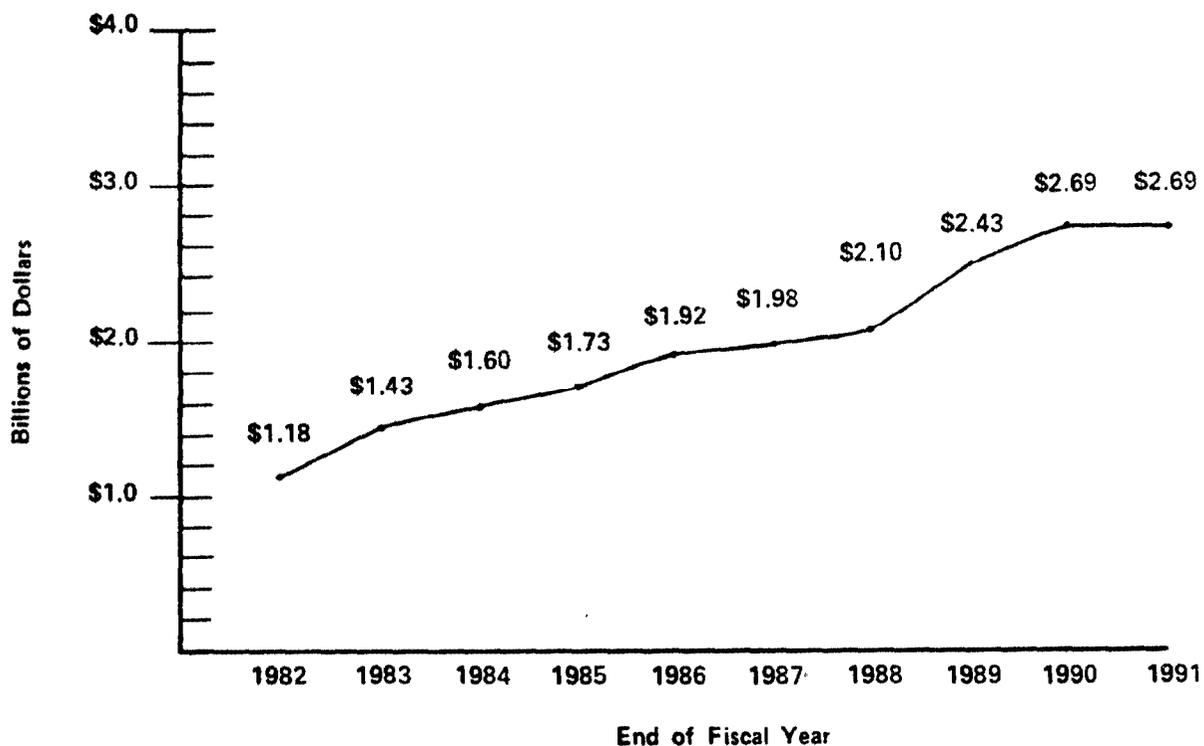
In September 1980 and 1981, the nuclear fuel inventory on Seven State's books reached \$676 and \$914 million respectively. The arrangement has allowed TVA to defer about \$51.2 million and

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1/Interest rates on the line of credit are based on the average cost of Treasury borrowing plus a 1/8-percent handling fee. Interest rates are determined by FFE and have been based on 91-day Treasury bills.

\$90.5 million in associated interest costs on nuclear fuel for fiscal years 1980 and 1981 respectively. For each year, this amounts to about \$.0004 (.4 mills) and \$.0008 (.8 mills) per kilowatt hour respectively. To illustrate, this would equate to \$.40 and \$.80 on a monthly electric bill with consumption of 1,000 kilowatt hours. If these costs were incurred, the average residential rate would be increased by about 1 percent. In the future, TVA estimates the nuclear fuel inventory will increase to about \$2.69 billion in 1991 as shown in the following graph.

TVA Projected Nuclear Fuel Inventory (note a)



a/These TVA projections assume that TVA power plants just deferred--Hartville A-1, A-2, and Yellow Creek Unit 1-- would have come on line in the early 1990s.

At this time TVA does not know what action it will take when the \$2-billion line of credit ceiling is reached in 1986. TVA's options could be to buy back the fuel, increase the ceiling on the line of credit, or sell the fuel outright. Uncertainty surrounds these projections as TVA continues to review the status of its nuclear construction program. If more plants are deferred or at some time cancelled, these projections would change.

COMPARISON WITH OTHER ELECTRIC UTILITIES

SIMILARITIES WITH OTHER  
ELECTRIC UTILITIES

TVA's sale and leaseback arrangement is similar to arrangements by other electric utilities. For example both TVA and the electric utilities

- set up and use a third party (either a corporation or trust) to buy the nuclear fuel,
- lease the fuel back as it is consumed,
- maintain possession and control over the nuclear fuel, and
- cover all expenses associated with the sale and leaseback, including legal, auditing, etc.

Also, the arrangements are usually for a long period such as the 30-year agreement TVA established with Seven States.

DIFFERENCES WITH OTHER  
ELECTRIC UTILITIES

Although the format of TVA's nuclear sale and leaseback arrangement is similar to those of other electric utilities, the reasons for entering the agreement are different. To understand these reasons, a clearer picture needs to be developed on how TVA (a nonregulated entity) and a regulated utility differ in setting power rates.

TVA, as a nonregulated Federal Corporation, needs only the approval of its Board to raise rates. The Board must attempt to keep power rates as low as feasible and also adhere to legislative guidance in setting rates to cover costs spelled out in section 15 d(f) of the TVA Act and to meet certain financial tests contained in its bond holders contracts.

Under these conditions, TVA must set rates to cover all current expenses associated with operating the power program including interest costs for carrying nuclear fuel. Thus, TVA, through this transaction, deferred a cost to a later period as a means of holding down rates. TVA has had several rate increases over the past few years. Logically, the Board--because of growing public concern over these rate increases--would consider options to keep rates down. This appears to be the major reason for TVA entering the arrangement.

The criteria followed by TVA would not apply to a regulated utility in entering a nuclear fuel sale and leaseback arrangement.

A regulated utility in most cases cannot pass the interest costs associated with carrying nuclear fuel onto its ratepayers as a current expense.

A utility enters such arrangements primarily because it is the most cost effective way of borrowing money. The electric utility industry has been expressing concern over obtaining money needed to carry out their construction programs, especially at the current cost of borrowing. Therefore, utilities are able to sell the nuclear fuel and obtain an influx of cash, usually at a lower cost than floating debt or equity. On the other hand, this reason is not as significant for TVA because of its access to the Federal Financing Bank (FFB).

TRANSACTION BETWEEN SEVEN STATES ENERGY CORPORATION  
AND THE FEDERAL FINANCING BANK (FFB)

Because the arrangement between Seven States, TVA, and FFB is highly complex and sophisticated, we have attached a copy of Seven States' financial statements which appear beginning on page 12. A listing of transactions between Seven States, FFB, and TVA through December 31, 1981, begins on page 18. Our review of these records did not disclose any material deficiencies. In summary, the transactions work as follows.

When Seven States initially entered the arrangement it purchased \$490 million in nuclear fuel from TVA. The money which Seven States borrowed went directly from FFB to TVA. As a result TVA received \$490 million in cash and no longer carried the fuel on its balance sheet. Also, TVA did not show a liability for this \$490 million on its balance sheet. Seven States picked up the fuel as an asset and showed the liability to FFB on its financial statements. As Seven States continues to borrow money from FFB and to buy TVA's fuel, it records the fuel on its books as an asset and the debt as a liability. TVA does not have to reflect these transactions on its financial records (see discussion p. 20 in appendix V) which highlights the accounting rationale for such treatment. 1/

FFB notifies Seven States of the interest rates and interest costs are then computed. The interest costs which are associated with fuel not being used are added to the cost of nuclear fuel and capitalized on Seven States records. Seven States is allowed to refinance the principal and interest associated with the unused fuel. As a result, interest is added to the principal to form a new and larger loan. Consequently, none of the FFB loan is repaid until the fuel is used.

The following shows how interest accumulates on the sale and leaseback arrangement. To illustrate, Seven States initially borrowed about \$490 million at approximately 13 percent to purchase nuclear fuel. At the end of the first quarter, interest would amount to about \$15.9 million (\$490 million x 13 percent divided by 4 quarters). Assuming this was all refinanced, Seven States would now borrow \$505.9 million. Assuming the same interest rate for the second quarter, cost would be about \$16.4 million (\$505.9 million x 13 percent divided by 4 quarters). In effect, funds are being borrowed to pay interest costs.

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1/Presently, the accounting profession is reexamining how utility companies should handle such transactions.

TVA determines when fuel is consumed and then repays the FFE for the loan plus interest on Seven States' behalf. Seven States then reduces its investment in nuclear fuel and TVA recognizes the payment on its income statement as an expense.

ARTHUR ANDERSEN & CO.  
LOS ANGELES, CALIFORNIA

To the Board of Directors of

Seven States Energy Corporation:

We have examined the balance sheets of SEVEN STATES ENERGY CORPORATION (a California corporation) as of September 30, 1981 and 1980, and the related statements of operations and changes in financial position for the year ended September 30, 1981 and for the period from October 31, 1979 (date of inception) to September 30, 1980. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of Seven States Energy Corporation as of September 30, 1981 and 1980, and the results of its operations and the changes in its financial position for the year and period then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

*Arthur Andersen & Co.*  
ARTHUR ANDERSEN & CO.

Los Angeles, California,

December 9, 1981.

SEVEN STATES ENERGY CORPORATIONBALANCE SHEETSSEPTEMBER 30, 1981 AND 1980

	<u>1981</u>	<u>1980</u>
<u>ASSETS</u>		
CASH	\$ 100	\$ -
LEASE RECEIVABLE	20,027,739	16,628,991
INVESTMENT IN DIRECT FINANCING LEASE FOR NUCLEAR FUEL (Notes 2 and 3):		
Acquisition costs	1,017,805,114	721,577,864
Less- Burn-up charges	(103,422,402)	(44,996,730)
Net investment in nuclear fuel	914,382,712	676,581,134
	\$ 934,410,551	\$693,210,125
	=====	=====
<u>LIABILITIES AND STOCKHOLDER'S EQUITY</u>		
LIABILITIES:		
Notes payable to Federal Financing Bank (Note 4)	\$ 922,174,679	\$684,988,653
Accrued interest	12,235,772	8,221,472
	934,410,451	693,210,125
	-----	-----
STOCKHOLDER'S EQUITY:		
Common stock, \$1 par value-		
Authorized--1,000 shares		
Issued and outstanding--100 shares	100	100
Stock subscriptions receivable, 100 shares at \$1 per share	-	(100)
Retained earnings (no activity)	-	-
	-----	-----
	100	-
	-----	-----
	\$ 934,410,551	\$693,210,125
	=====	=====

The accompanying notes are an integral part of these balance sheets.

SEVEN STATES ENERGY CORPORATION

STATEMENTS OF OPERATIONS

FOR THE YEAR ENDED SEPTEMBER 30, 1981 AND

FOR THE PERIOD FROM OCTOBER 31, 1979 (DATE OF INCEPTION)

TO SEPTEMBER 30, 1980

	<u>1981</u>	<u>1980</u>
LEASE INCOME (Note 2)	\$ 81,150,315	\$ 56,543,581
EXPENSES:		
Interest	113,199,638	62,737,987
Burn-up charges (Note 3)	58,425,672	44,996,730
	<u>171,625,310</u>	<u>107,734,717</u>
Less- Capitalized interest (Note 3)	90,474,995	51,191,136
	<u>81,150,315</u>	<u>56,543,581</u>
NET INCOME FROM OPERATIONS	<u>\$ -</u>	<u>\$ -</u>
	=====	=====

The accompanying notes are an integral part of these statements.

SEVEN STATES ENERGY CORPORATION

STATEMENTS OF CHANGES IN FINANCIAL POSITION

FOR THE YEAR ENDED SEPTEMBER 30, 1981 AND

FOR THE PERIOD FROM OCTOBER 31, 1979 (DATE OF INCEPTION)

TO SEPTEMBER 30, 1980

	1981	1980
<b>SOURCES OF CASH:</b>		
Issuance of notes payable to Federal Financing Bank, net of retirement of notes	\$237,186,026	\$684,988,653
Increase in accrued interest	4,014,300	8,221,472
Common stock capitalization	100	-
	241,200,426	693,210,125
<b>USES OF CASH:</b>		
Investment in direct financing lease for nuclear fuel, net	237,801,578	676,581,134
Increase in lease receivable	3,398,748	16,628,991
	241,200,326	693,210,125
<b>NET INCREASE IN CASH DURING THE PERIOD</b>	100	-
<b>CASH:</b>		
Beginning of period	-	-
End of period	\$ 100	\$ -

The accompanying notes are an integral part of these statements.

SEVEN STATES ENERGY CORPORATIONNOTES TO FINANCIAL STATEMENTSSEPTEMBER 30, 1981(1) Business-

Seven States Energy Corporation (the Company) was incorporated in the State of California on October 25, 1979, principally to purchase nuclear fuel and lease such fuel to the Tennessee Valley Authority. On October 31, 1979, the Company entered into a fuel lease with the Tennessee Valley Authority (TVA) and a credit agreement with the Federal Financing Bank (the Bank).

(2) Summary of significant accounting policies-Lease income-

Lease income is recognized at such time as the nuclear fuel enters the heat production stage, corresponding to the physical use of the fuel under provisions contained in the lease.

Lease accounting-

The amounts recorded as acquisition costs in investment in direct financing lease represent the cost of nuclear fuel, capitalized interest and related direct lease costs. The acquisition costs are recovered from the lessee under provisions contained in the lease when the fuel enters the heat production stage.

(3) Fuel lease-

The Company has executed a lease with TVA, the term of which is October 31, 1979 through October 31, 2009. The lease provides for termination upon the occurrence of specified "terminating events." Upon termination, the lease requires TVA to purchase the nuclear fuel at the net investment amount, plus any other amounts then due or accrued and unpaid under the lease. Throughout the term of the lease, title to the fuel remains with the Company; however, unless an event of default under the lease occurs, the physical control and management, along with all other responsibilities (including insurance and disposal costs), rest with TVA. The Company's rights under the lease have been assigned to the Bank under the credit agreement (see Note 4).

The lease provides for payments for burn-up charges to cover amortization of the fuel as it is consumed in the reactor, along with quarterly lease charges (noncapitalized interest on outstanding debt). Any payments (including interest) which are allocable to fuel not yet in the heat production stage are capitalized as cost of nuclear fuel.

(4) Credit agreement-

The Company executed a credit agreement with the Bank, the term of which coincides with the term of the lease and includes the same provisions for termination as contained in the lease. It also provides for borrowings up to \$2,000,000,000 (commitment).

The following notes payable under the credit agreement were outstanding at September 30, 1981:

Issued July 31, 1981, 15.659 percent, due October 30, 1981	\$307,496,903
Issued August 31, 1981, 16.316 percent, due November 30, 1981	312,341,512
Issued September 30, 1981, 15.105 percent, due December 31, 1981	302,336,264
	-----
	\$922,174,679
	=====

The proceeds of all loans made under the credit agreement are used by the Company solely for the following purposes:

(a) Reimbursement of TVA for acquisition costs incurred by TVA in connection with nuclear fuel transferred to the Company.

(b) Repayment of principal or interest on any note, as permitted by the credit agreement.

The credit agreement is generally secured by the assets of the Company, which consist principally of nuclear fuel, and by the Company's rights under the lease.

(5) Related-party transactions-

The Company has entered into an agreement with Security Pacific Financial Services to perform all support, administrative and financial services under the lease agreement. Certain officers of the Company also hold offices with Security Pacific Financial Services. As compensation for services performed and facilities furnished, Security Pacific Financial Services receives a management fee of \$8,000 per month.

NUCLEAR FUEL LEASING ARRANGEMENT BETWEEN  
TVA, FFB AND  
SEVEN STATES ENERGY CORPORATION  
LISTING OF ACTIVITY THROUGH DECEMBER 31, 1981 (note a)

APPENDIX IV

<u>Date</u>	<u>Type of transactions</u>	<u>Interest rate</u> (percent)	<u>Loan to Seven States from FFB</u>	<u>Interest payment</u>	<u>Proceeds received (paid) by TVA</u>
10/31/79	Transfer of fuel	12.983	\$490,576,575.90	\$	\$490,576,575.90
11/30/79	Transfer of fuel	12.102	8,666,262.02		8,666,262.02
12/31/79	Transfer of fuel	12.670	27,339,046.51		27,339,046.51
01/31/80	Retire previous loan		[490,576,575.90]		
01/31/80	Refinance and transfer of fuel	12.815	526,236,242.60	4,387,403.34	31,272,263.36
01/31/80	Basic rental payment			11,666,358.93	[11,666,358.93]
02/29/80	Retire previous loan		[8,666,262.02]		
02/29/80	Refinance and transfer of fuel	14.542	15,741,592.43	261,479.41	6,813,851.00
03/31/80	Retire previous loan		[27,339,046.51]		
03/31/80	Refinance and transfer of fuel	15.951	58,740,636.91	863,591.79	30,537,998.61
04/30/80	Retire previous loan		[526,236,242.60]		
04/30/80	Refinance and transfer of fuel	11.404	546,408,873.92	5,606,268.47	14,566,362.85
04/30/80	Basic rental payment			11,022,075.92	[11,022,075.92]
05/30/80	Retire previous loan		[15,741,592.43]		
05/30/80	Refinance and transfer of fuel	8.108	27,027,305.24	570,717.63	10,714,995.12
06/30/80	Retire previous loan		[58,740,636.91]		
06/30/80	Refinance and transfer of fuel	7.938	77,473,983.22	2,336,012.13	16,397,334.18
07/31/80	Retire previous loan		[546,408,873.92]		
07/31/80	Refinance and transfer of fuel	8.678	558,365,430.09	[1,519,999.33]	13,476,555.50
07/31/80	Basic rental payment			17,226,155.64	[17,226,155.64]
08/29/80	Retire previous loan		[27,027,305.24]		
08/29/80	Refinance and transfer of fuel	10.570	13,329,421.00	546,342.54	4,881,069.48
08/29/80	Advance rent payment				[19,125,296.26]
09/30/80	Retire previous loan		[77,473,983.22]		
09/30/80	Refinance and transfer of fuel	12.164	113,293,801.66	1,550,107.95	34,269,710.49
10/31/80	Retire previous loan		[558,365,430.09]		
10/31/80	Refinance and transfer of fuel	13.223	581,745,319.00	[4,415,687.98]	27,795,576.89
10/31/80	Basic rental payment			16,628,990.96	[16,628,990.96]

a/Information provided by Seven States Energy Corporation.

APPENDIX IV

<u>Date</u>	<u>Type of transaction</u>	<u>Interest rate</u> (percent)	<u>Loan to Seven States from FPE</u>	<u>Interest payment</u>	<u>Proceeds received (Paid) by IVA</u>
11/28/80	Retire of previous loan		\$( 13,329,421.00]		
11/28/80	Refinance and transfer of fuel	15.118	26,395,050.94	\$ 351,264.94	\$ 12,714,365.00
12/31/80	Retire of previous loan		[113,293,801.66]		
12/31/80	Refinance and transfer of fuel	14.965	123,815,684.94	3,473,581.78	7,048,301.50
01/30/81	Retire previous loan		[581,745,319.00]		
01/30/81	Refinance and transfer of fuel	15.736	200,000,000.00		
01/30/81	Refinance and transfer of fuel	15.736	100,000,000.00		
01/30/81	Refinance and transfer of fuel	15.736	291,274,420.28	2,277,461.78	7,251,639.50
01/30/81	Basic rental payment			16,900,896.31	[ 16,900,896.31]
02/27/81	Retire previous loan		[200,000,000.00]		
02/27/81	Retire previous loan		[ 26,395,050.94]	994,867.80	
02/27/81	Refinance and transfer of fuel	15.015	241,839,171.84	1,414,290.41	12,034,962.69
03/31/81	Retire previous loan		[100,000,000.00]		
03/31/81	Retire previous loan		[123,815,684.94]	2,586,739.73	
03/31/81	Refinance and transfer of fuel	13.213	250,041,221.93	4,568,798.77	19,069,998.49
04/30/81	Retire previous loan		[291,274,420.70]		
04/30/81	Refinance and transfer of fuel	15.277	308,022,169.70	[12,001,337.38]	28,749,086.80
04/30/81	Basic rental payment			23,303,104.09	[ 23,303,104.09]
05/29/81	Retire previous loan		[241,839,171.84]		
05/29/81	Refinance and transfer of fuel	16.327	294,477,688.03	9,053,166.58	43,585,349.61
06/30/81	Retire previous loan		[250,041,221.93]		
06/30/81	Refinance and transfer of fuel	14.742	284,446,258.97	8,236,857.93	26,168,179.11
07/31/81	Retire previous loan		[308,022,169.93]		
07/31/81	Refinance and transfer of fuel	15.659	307,496,903.30	[ 9,057,747.94]	8,532,481.54
07/31/81	Basic rental payment			20,918,576.19	[ 20,918,576.19]
08/31/81	Retire previous loan		[294,477,688.03]		
08/31/81	Refinance and transfer of fuel	16.316	312,341,511.69	12,382,084.88	5,481,738.78
09/30/81	Retire previous loan		[284,446,258.97]		
09/30/81	Refinance of transfer of fuel	15.105	302,336,264.16	10,569,430.71	7,320,574.48
10/30/81	Retire previous loan		[307,496,903.30]		
10/30/81	Refinance and transfer of fuel	13.797	325,209,457.76	[ 8,022,983.95]	25,735,538.41
10/30/81	Basic rental payment			20,027,738.88	[20,027,738.88]
11/30/81	Retire previous loan		[312,341,511.69]		
11/30/81	Refinance and transfer of fuel	10.588	345,618,287.05	12,705,505.03	20,571,270.33
12/31/81	Retire previous loan		[302,336,264.16]		
12/31/81	Refinance and transfer of fuel	12.166	343,877,651.62	11,510,811.31	30,030,576.15

ANALYSIS AND EVALUATION OF TRANSACTION

We found the nuclear fuel sale and leaseback arrangement complex and a unique transaction for TVA, which would require TVA's detailed analysis before entering such a new arrangement. This is particularly important when considering the transaction (1) impacts not only on current electric rates but on rates over a 30-year period, (2) results in deferring interest costs which enables TVA to avoid applying a requirement of the TVA Act, (3) takes certain financial data off the financial statements, a controversial issue in the accounting profession, and (4) required the Department of the Treasury to seek additional borrowings to handle loans through the Federal Financing Bank (FFB).

TVA DID NOT ADEQUATELY  
EVALUATE THE COSTS

At the time that the TVA Board approved the nuclear fuel sale and leaseback arrangement, the only study completed on which to base a decision was a 10-year revenue requirement analysis conducted by TVA's Office of Power. The study indicated that TVA's revenue requirements could be reduced by \$893 million over the period 1979-1988. We found this study to be inadequate because the nuclear fuel sale and leaseback arrangement entered by TVA was for 30 years and only considered short-term rate deferrals. In fact, this was the only study performed at the time the TVA Board approved the transaction. TVA did no further analysis before making their decision because they followed what they believed is a very simple theory--deferring interest on nuclear fuel is advantageous to the ratepayer because they would have the advantage of using money not spent on electricity for other uses. However, no analysis was conducted to support this theory.

During our review, we requested TVA on several occasions to provide information showing the benefits of the 30-year transaction. Although information was provided, we found that TVA did not always use the most current data or the most realistic assumptions. Our evaluation of TVA's material showed that it

--projected fuel requirements for 17 units under construction; however, at the time TVA had deferred

- assumed that unlimited financing would be available indefinitely at declining interest rates;
- projected full production at DOE's uranium enrichment facilities even though they were operating at 40 percent capacity;
- identified deferred interest as "savings" instead of capitalized debt;
- excluded the accumulated obligations of Seven States;
- failed to consider the inverse impact of higher fuel costs on customer demand; and
- failed to consider the carrying costs of excess uranium inventory due to decreased demand and deferred units.

We brought these weaknesses to TVA's attention. Another study was made but not provided to us because TVA officials reviewing the study termed it inadequate. As of March 8, 1982, TVA has not provided us with a study incorporating realistic and current data which adequately assesses the transaction's long-term benefits and costs. Consequently, it is not in a position to know the long-term impact of the transaction on TVA and the ratepayer, its future financing, and whether it may at some time want to terminate the contract.

#### ISSUE OF DEFERRING INTEREST COSTS

Although the transaction appears technically correct, the economic effect of TVA using the sale and leaseback mechanism is to defer the payment of interest expenses associated with its nuclear fuel until the future. This practice enables TVA to avoid applying the congressional requirement in section 15d(f) of the TVA Act that requires power rates to reflect interest on outstanding debt. Specifically the Act requires TVA

"\* \* \* charge rates for power which will produce revenues sufficient to provide funds for \* \* \* debt service on outstanding bonds, including provision and maintenance of reserve funds and other funds established in connection therewith \* \* \*" (underscoring added)

Section 15d(a) of the Act defines bonds to include "bonds, notes, and other evidence of indebtedness." The term "debt service on outstanding bonds" refers to the payment of principal and interest.

TVA recognizes the importance of this requirement. A TVA Board member stated in March 1981 congressional testimony:

"It is equally important to understand the reason why that provision is in our contracts with bondholders and is in the act. TVA could not have in the past, and could not today, finance its building program in the public bond market at competitive interest rates if TVA did not have that requirement. It really is quite easy to understand why in lay language, that requirement says simply that TVA cannot borrow money to pay interest on borrowed money."

The subject of TVA deferring interest on its construction financing is currently at issue in a court case brought by ratepayers. 1/

ACCOUNTING TREATMENT OF THE TRANSACTION COULD POSE A PROBLEM

TVA entered the lease agreement at a time when, within the accounting profession, there was and still is considerable debate over how utilities should reflect leaseback transactions on their financial statements. Such transactions are now disclosed as footnotes to the financial statements. 2/ Because there are concerns that financial statements may not be adequately presenting a clear picture of liabilities, the Securities and Exchange Commission and others have asked the Financial Accounting Standards Board (FASB) to conduct a complete review of Accounting Principle Opinion (APB Opinion 2 Addendum) which is applicable to the utility industry accounting for such transactions. Such a study is now underway.

TVA's public accounting firm cautioned TVA in March 1979, that although for the present, off-balance sheet disclosures would be accepted, changes which are currently under consideration may cause independent auditors to reverse their position. If that happens, TVA would have to show Seven States' liabilities, including accrued interest on its balance sheet. If this should happen, TVA said it may terminate the transaction since the advantages would then be lost, and the interest expense associated with the transaction would be passed on to TVA's ratepayers.

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1/Tennessee Valley Energy Coalition et al. vs. Tennessee Valley Authority et al. U.S. District Court for the Middle District of Tennessee, Civil Action No. 81-1069.

2/Present accounting treatment permits these transactions to be considered as an "operating lease," and therefore they can be disclosed in footnotes to the financial statement.

NO ANALYSIS PERFORMED BY FFE

At the time FFB extended Seven States a \$2 billion line of credit, with a TVA guarantee, to finance a nuclear fuel sale and leaseback, no FFE credit investigatory work on TVA or Seven States was done. Officials at FFE told GAO that they did not believe a credit investigation was necessary because (1) TVA is a Federal entity, (2) the loan to Seven States was guaranteed by TVA, and (3) if needed, TVA has the authority to raise electric rates to cover the cost of the loan.

Although the points FFE makes are true, we still believe an investigation should have been conducted for the following reasons:

- (1) The type loan made to Seven States was unusual because the financing allows for the rolling over of principal plus interest.
- (2) Although the loan was guaranteed by TVA, FFB had only marginal knowledge of M&W Resources Division, the company that set up Seven States.
- (3) FFB financing is off-budget and, therefore, is not counted as part of the Federal budget.

The off-budget aspect of the transaction and use of the FFE has received much attention from different groups. In January 1981 the OMB expressed concern that this type of transaction removes the liability from the agency's financial statements and, thus, understates the actual level of liabilities Federal agencies have incurred. OMB was also concerned about the impact these Federal borrowings may have on competition for money in the capital markets and, thus, impact on interest rates. Most recently, the Washington University Center for the Study of American Business in St. Louis questioned whether TVA and FFE should be able to commit \$2 billion of Federal funds without congressional oversight and whether TVA's involvement in such a transaction could set a precedent for other agencies to use FFE loans through agency guarantees. Further, a recent January 1982 Journal of Commerce editorial discussed this topic with a message that such use of the FFE should receive congressional approval.

In addition, in a macroeconomic sense, these loans still compete for funds on the open market and, thus, impact on interest rates. This loan by FFE requires the Department of the Treasury to borrow additional money which impacts on cash availability in the capital market place.

The Congress and administration are attempting to review fiscal management control to reduce the Federal Government's competing for money in the open market. This use by TVA of

the FFE is an area which should receive more scrutiny and review in the future. The Congress may need to provide more oversight over TVA before similar transactions are made. Even the current transaction will need additional money by the late 1980s as TVA exceeds the \$2 billion loan now approved. When more money is required TVA could request an increase in the line of credit from FFE. Congressional oversight should decide if an increase is warranted.

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