

GAO

United States General Accounting Office

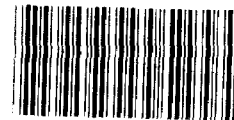
128808

Fact Sheet for the Honorable
Gordon J. Humphrey
United States Senate

January 1986

TVA NUCLEAR POWER

Information on Certain Aspects of TVA's Nuclear Power Program



128808

1. The first line of the document is a header line, which is a horizontal line spanning the width of the page. It is followed by a large blank space, which is the main body of the document. The second line of the document is a footer line, which is a horizontal line spanning the width of the page. It is followed by a large blank space, which is the main body of the document.



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

January 8, 1986

B-221487

The Honorable Gordon J. Humphrey
Chairman, Subcommittee on Regional
and Community Development
Committee on Environment and Public Works
United States Senate

Dear Mr. Chairman:

In your October 9, 1985, letter, you asked us to obtain information on the operations of the Tennessee Valley Authority (TVA). Specifically, you asked us to provide information on three issues you plan to address: (1) the effect on TVA's ratepayers of TVA's decision to temporarily shut down its operating nuclear units and to slow construction on its remaining units, (2) the long-term electric power rate increases projected by TVA over the next 10 years, and (3) the steps TVA is taking to repay its outstanding debt to the Federal Financing Bank. On December 11, 1985, we briefed your office on the information we had obtained on these items. The appendix discusses that information and is being provided at the request of your office.

In summary, TVA officials told us that the decision to shut down five operating nuclear units in 1985 increased TVA's operating costs for fiscal years 1985 and 1986 by a total of \$108 million. However, only \$40.5 million was included as a revenue requirement in establishing 1986 power rates to TVA customers. In addition, TVA officials told us that of its \$15.6 billion outstanding long-term debt, TVA plans to retire \$4.56 billion that is associated with the construction cost for eight cancelled nuclear units. TVA officials also told us it is likely that they will refinance the balance of their long-term debt as notes become due.

The information in the appendix is based on discussions with TVA officials and our review of TVA records and documents. As agreed with your office, we did not attempt to independently verify the information provided by TVA. We did meet, however, with a partner of Coopers and Lybrand, a certified public accounting firm that examines the annual financial statements of TVA and other utilities, to obtain additional information on how private utilities generally repay long-term debt.

We discussed the information obtained during our review with agency program officials and have included their comments where appropriate. As arranged with your office, we are sending copies of this fact sheet to the Chairman, Board of Directors, Tennessee Valley Authority. Copies will also be available to other interested parties who request them. If you need further information, please call me on 275-8545.

Sincerely yours,

Paul C. Shore
for
Keith O. Fultz
Associate Director

ISSUE: The effect on the Tennessee Valley Authority's (TVA's) ratepayer of the agency's recent decision to shut down nuclear operating capacity and slow down construction of the remaining nuclear units.

RESPONSE: Because of various safety concerns, on March 27, 1985, TVA temporarily shut down all three nuclear power generation units at its Brown's Ferry plant and, on August 21, 1985, TVA shut down the two units at its Sequoyah plant. TVA currently estimates that these shutdowns would increase operating costs by an additional \$108 million during fiscal years 1985 and 1986. This cost represents the increased cost to replace the power by operating more costly coal-fired plants and purchasing power from other utilities.

According to TVA officials, about \$40.5 million of the \$108 million cost was incurred in fiscal year 1985. These officials said that because electric power rates for fiscal year 1985 had been set in August 1984, the costs incurred in fiscal year 1985 were not reflected in 1985 rates. Nevertheless, TVA's revenues in fiscal year 1985 were sufficient to cover these costs. TVA estimated that \$67.5 million in costs will be incurred in fiscal year 1986. Of this total, \$40.5 million was included in TVA's projected fiscal year 1986 revenue requirements. However, after the fiscal year 1986 rates had been set, TVA determined that an additional \$27 million would be incurred. This additional cost, according to TVA officials, will not increase 1986 rates; but, similar to the previous year, fiscal year 1986 revenues will be sufficient to provide for this additional cost.

The construction slowdowns affect only the two nuclear units at TVA's Bellefonte plant. TVA conducted an economic analysis on the effect of delaying completion of the Bellefonte units. Two considerations specifically addressed in this analysis were: (1) How would a construction slowdown benefit the ratepayer? (2) Would a slowdown allow TVA flexibility to adapt to uncertain changes in its environment? TVA's present value analysis showed that the delay could cost ratepayers \$19 million but could potentially save them as much as \$145 million. The potential savings would result primarily from avoidance of interest costs as a result of reduced borrowing in the near term and deferring depreciation expense until the plant comes on line in the 1990's.

On the basis of TVA's 1986 forecast of power needs, at the earliest, Bellefonte unit 1 will not be needed until October 1993, and Bellefonte unit 2 will not be needed until October 1995. TVA officials told us that slowing down construction gives TVA the flexibility to monitor this situation and the option to bring the units on line sooner or never at all.

ISSUE: The long-term electric power rate increases projected by TVA over the next 10 years.

RESPONSE: TVA supplied us with its projected rate forecast as of February 1985, which showed projections for a 5-year period and a 15-year period. In the 5-year forecast, 1985-1990, TVA projects 4.7 percent as the most probable wholesale growth rate but estimates that it could fall within a range of 3.8 to 6.2 percent. For the 15-year period, 1985-2000, TVA expects the wholesale rates to grow at a rate of 4.4 percent annually, but indicates that it could fall within a range of 3.3 to 6.1 percent.

ISSUE: The steps TVA is taking to repay its outstanding debt to the Federal Financing Bank (FFB), and the effect repayments may have on future rate needs.

RESPONSE: As of September 30, 1985, TVA had outstanding a total long-term debt of about \$15.6 billion that consisted of a \$1.7 billion debt held by the public for bonds issued between 1960-74 and a \$13.9 billion debt held by FFB for bonds issued between 1975-85.

About \$4.56 billion of the long-term debt is related to construction costs for eight nuclear power units that were cancelled in the past several years. TVA plans to retire this portion of its long-term debt. In October 1984, TVA began making deposits to a bond retirement investment fund and will continue to do so for 11 years. According to TVA officials these deposits, of about \$132 million a year, are calculated to yield adequate funds to retire \$4.56 billion of debt by the year 2002. The annual contributions to the investment fund will not require TVA to increase rates. However, in fiscal year 1981, TVA began writing off the asset value of the \$4.56 billion associated with the cancelled units and will continue to do so until fiscal year 1995. These write-offs can affect ratepayers in any given year depending on the extent to which the write-offs are included in that year's operating expenses--which determines TVA's revenue requirements. Through fiscal year 1985, TVA had written off about \$1.9 billion of the asset value. These write-offs were not considered operating expenses and, therefore, did not increase revenue requirements. However, TVA officials told us that beginning in 1987, all of the write-offs for each year will be included in operating expenses, and thus rates can be directly affected. While a rate increase could occur, this would depend on the ratio between TVA's total power system costs and its projected revenues for the year.

TVA's Chief, Power Financing Staff, told us that, currently, TVA plans to refinance the balance of its long-term debt as the notes become due. However, he added that circumstances in the

future, such as a reduced need for additional capital investment, could result in TVA retiring debt as it becomes due. An official of Coopers and Lybrand told us that the practice of refinancing the long-term debt is routine in the utility industry.

(005359)

Requests for copies of GAO reports should be sent to:

U.S. General Accounting Office
Post Office Box 6015
Gaithersburg, Maryland 20877

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are \$2.00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

Orders must be prepaid by cash or by check or money order made out to the Superintendent of Documents.

33211

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

Official Business
Penalty for Private Use, \$300

Bulk Rate
Postage & Fees Paid
GAO
Permit No. G100