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United States General Accounting Office
Washington, DC 20548

Accounting and Information
Management Division

B-284074

November 19, 1999

The Honorable Sherwood L. Boehlert
Chairman, Subcommittee on Water Resources
and Environment
Committee on Transportation and Infrastructure
House of Representatives

Subject: *Tennessee Valley Authority: Response to Questions From September 22, 1999, Hearing*

Dear Mr. Chairman:

Enclosed are responses to the questions that you provided subsequent to our testimony during your September 22, 1999, oversight hearing: TVA: Electricity Restructuring and General Oversight.

I hope that this information is helpful. If you have further questions, or would like to discuss any of the issues in more detail, please contact me at (202) 512-9508 or Robert Martin, Assistant Director, at (202) 512-4063.

Sincerely yours,

Linda M. Calbom
Director, Resources, Community, and Economic Development
Accounting and Financial Management Issues

Enclosure

Response to Questions From September 22, 1999, Hearing

Question 1: Describe the linkages between TVA reducing its debt and its preparation to better position itself for a competitive electricity market.

GAO Response: To be competitive in a deregulated environment, TVA must have the financial flexibility to offer competitively priced power. As we reported in 1995[1] and 1997,[2] because of TVA's high fixed interest charges, we concluded that TVA lacked the financial flexibility it would need to compete in a deregulated environment. In July 1997, TVA issued a 10-year business plan that recognized the need to reduce the cost of delivered power to a level consistent with the industry's forecast of the future market price of power in the areas surrounding TVA's service territory. The plan also recognized the need to alter TVA's cost structure from a "...high fixed-to-variable cost relationship to a structure that is more flexible and better able to adjust to a volatile marketplace."

Interest expense on outstanding debt has been about one-third of TVA's total expenses in recent years. Therefore, reducing debt and the corresponding interest expense are key to TVA's ability to increase its financial flexibility to respond to competitive pressures. TVA's 10-year plan recognized this and established a goal of reducing debt by one-half to about $14 billion by 2007. The year 2007 was key in TVA's plan because that was when TVA expected to face greater competitive pressures and when many of its long-term contracts with customers could expire.

Question 2: What comprises TVA's high fixed financing costs and deferred assets? How do TVA's fixed costs and deferred assets compare to other utilities with which it may have to compete? How would these affect TVA's ability to compete?

GAO Response: TVA's high fixed financing costs consist of interest expense on TVA's outstanding debt, which totaled about $26 billion as of September 30, 1999. Deferred assets totaled $9.1 billion as of September 30, 1999, $6.3 billion of which represented the cost of nonproductive nuclear plants that have not yet been included in TVA's rate base. The remaining deferred assets of about $2.8 billion include unamortized debt issuance and reacquisition costs, postemployment benefits, decommissioning costs, and capitalized interest on nuclear fuel.

Compared to other utilities with which it may have to compete, TVA's fixed financing costs and deferred assets are high. In our 1997 report,we assessed TVA's financial condition relative to its likely competitors. We calculated the financing costs to revenue ratio, which indicates the percentage of operating revenues needed to cover the financing costs of the entity. We also compared the magnitude of TVA's deferred

[1] *Tennessee Valley Authority: Financial Problems Raise Questions About Long-term Viability* (GAO/AIMD/RCED-95-134, August 17, 1995).

[2] *Federal Electricity Activities: The Federal Government's Net Cost and Potential for Future Losses* (GAO/AIMD-97-110 and 110A, September 19, 1997).

assets to its most likely competitors by calculating the ratio of deferred assets to gross property, plant, and equipment (PP&E), which shows how much of total PP&E has not yet begun to be depreciated and taken into rates.

We found that for fiscal year 1996, TVA's ratio of financing costs to revenue was more than twice as high as the ratio for the utilities that border on TVA's service territory. In addition, we found that as of September 30, 1996, TVA's deferred assets represented 20 percent of its gross PP&E while the ratio for the investor-owned utilities (IOU) that border on TVA's service territory averaged just 3 percent. Given these financial factors, if current legislative protections were removed and TVA was required to compete at a time when wholesale prices are falling, its high fixed costs and deferred assets compared to neighboring utilities would be a significant disadvantage.

In April 1999,[3] we reported that TVA's 10-year plan is moving TVA in the right direction by seeking to reduce its high fixed financing costs and large investment in nonproducing and other deferred assets that have not been recovered through rates. Making progress in these areas prior to the full advent of competition is key to its chances of being competitive without legislative protections.

Question 3: Even though TVA is behind in meeting some of its 10-year plan goals and must incorporate significant costs previously unaccounted for, do you believe TVA can achieve its ultimate objective of offering competitively priced power by 2007? What would need to happen for TVA to be able to achieve this goal by then? For example, would it have to maintain or increase its customer base? Would the demand for power have to increase, and if so, by how much?

GAO Response: Because it is not possible to accurately predict what the market price of power will be in 2007 or how the competitive environment might change, it cannot be determined with certainty whether TVA will be able to compete successfully in a competitive environment. TVA could achieve its objective of offering competitively priced power even if it does not fully achieve the plan's other goals and objectives. Conversely, depending on the market price of power, TVA could fully achieve all of the goals and objectives outlined in the plan and still not be positioned to offer competitively priced power in 2007 and beyond.

It is important to note that any progress TVA makes toward achieving the goals and objectives in its 10-year plan will put TVA in a better competitive position. TVA plans to use the cash flow generated from higher power rates, lower expenses, and reduced capital expenditures to reduce debt and corresponding fixed interest costs, which should enable TVA to reduce its overall cost of producing power and begin to recover its deferred assets. However, any decisions to spend additional money on increased generating capacity and environmental compliance efforts would use cash that would otherwise have been available to reduce debt. As pointed out in our April 1999 report, we do not think TVA will fully meet the debt reduction goals in its 10-year plan

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[3] *Tennessee Valley Authority: Assessment of the 10-Year Business Plan* (GAO/AIMD-99-142, April 30, 1999).

because of expenditures on environmental compliance and its subsequent decision to spend more money than originally planned on new generating assets.

The revenue projections contained in TVA's 10-year plan are predicated on its maintaining its current customer base. Achieving the revenue projections is important to TVA as it seeks to prepare for a competitive environment by reducing debt and corresponding fixed interest costs and deferred assets. Doing these things will increase the likelihood that TVA will be able to successfully compete. Increased demand could benefit TVA if the costs of meeting the demand are lower than the associated revenues. Conversely, increased demand could be detrimental to TVA if the costs of meeting the demand are higher than the associated revenues.

Question 4: What would happen to TVA's debt reduction efforts if competition in the region occurred prior to 2007?

GAO Response: The impact of competition prior to 2007 on TVA's debt reduction efforts would depend on how TVA's rates and costs compared to the competition at that time. If TVA is forced to compete before 2007 and competition forced it to sell power at reduced rates, TVA's ability to reduce debt and recover the cost of deferred assets would be impaired. Conversely, if competition before 2007 did not force TVA to reduce rates from its planned levels, it would not have a negative impact on TVA's ability to reduce debt and deferred assets.

Question 5: What is your reaction to TVA's statement that expected returns on increased investment in generating capacity, and upward pressure on market prices from the prospect of higher environmental spending allow TVA to remain on its path to provide competitive prices by 2007, even though it won't meet its debt reduction goals?

GAO Response: As indicated in our April 1999 report, TVA's predictions about the future market price of wholesale power are not out of line with predictions made by other knowledgeable parties. Based on TVA's current predictions about the future price of power in its service region, it is not unrealistic for TVA to project that it could increase spending on generating capacity and environmental compliance and remain on a path to offer competitively priced power by 2007 without fully meeting its debt reduction goals. However, TVA's plan for preparing for competition has not been formally updated to show the impact that changes in certain goals and assumptions will have on TVA's ability to offer competitively priced power. While TVA has acknowledged several changes related to the goals and assumptions contained in the plan—including that it will not achieve its debt reduction goal by 2007—the plan has not been formally updated to assess and demonstrate the impact of those changes. Any delay in meeting its debt reduction goals increases the risk that TVA will not be able to offer competitive prices in 2007.

Question 6: Does GAO believe that TVA bonds are implicitly backed by the federal government (as stated by major bond-rating agencies), which is essential for TVA to obtain AAA bond ratings? If so, does GAO believe such backing constitutes a federal subsidy? How so? What would happen if TVA lost its implicit federal backing of its bonds, and would it affect TVA's debt reduction plans?

GAO Response: The federal government does not guarantee TVA's bonds, and the bonds explicitly state that they are not backed by the federal government. Nevertheless, the investment community, including major bond rating agencies, believe that TVA's bonds are implicitly backed by the federal government. For example, Moody's Investors Service's October 1999 analysis of TVA states that "the Aaa rating on TVA power bonds derives from its status as a wholly-owned corporate agency of the US Government. Although TVA's bonds are not guaranteed by the US Government, Moody's believes that the US would not allow a default on TVA's debt because of the impact a default would have on the funding costs of other government-sponsored agency debt." Moody's further states that the implicit government backing is a fundamental underpinning of the Aaa rating it assigned to TVA's debt.[4]

This perception by the investment community is an advantage to TVA in that its interest expense is lower than it otherwise would be. If the perception did not exist, TVA's interest expense would likely be higher and less money would be available for debt reduction. While these lower interest costs do not constitute a federal subsidy to TVA, they do represent a competitive advantage.

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[4]*Moody's Investors Service Global Credit Research Report on the Tennessee Valley Authority* (Report number 50006, October 1999).