

Highlights of [GAO-12-107](#), a report to the Chairman, Committee on Environment and Public Works, U.S. Senate

Why GAO Did This Study

The Tennessee Valley Authority (TVA), the nation's largest public power provider, is a self-financing, federal electric utility with annual revenues of about \$11 billion. TVA has financed large capital investments mostly by issuing debt and is subject to a \$30 billion debt ceiling imposed by the TVA Act. TVA is governed by a 9-member Board. Within an affirmation requirement for the TVA Board, the TVA Act recognizes that TVA's broad missions and objectives include being a national leader in technological innovation, low-cost power, and environmental stewardship. GAO was asked to examine (1) how TVA plans to meet future demand for electricity and how TVA's resource planning and forecasts compare to those from other sources, (2) TVA's efforts to use energy efficiency to meet demand for electricity, and (3) TVA's financial condition and how it affects TVA's ability to meet its operational and financial goals. GAO analyzed data from TVA and third parties, reviewed agency documents, and interviewed federal and state officials and industry stakeholders.

What GAO Recommends

GAO recommends that TVA (1) use information from the energy efficiency study it commissioned to inform its future resource planning process and (2) develop a written capital expenditure plan that includes the full costs of the assets TVA plans to acquire and the sources of funding for acquiring those assets. TVA agreed with GAO's first recommendation and generally agreed with the second recommendation.

View [GAO-12-107](#) or key components. For more information, contact Frank Rusco at (202) 512-3841 or ruscof@gao.gov, or Susan Ragland at (202) 512-9095 or raglands@gao.gov.

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TENNESSEE VALLEY AUTHORITY

Full Consideration of Energy Efficiency and Better Capital Expenditures Planning Are Needed

What GAO Found

According to its 2010 power supply plan, by 2029 TVA plans to meet electricity demand primarily by expanding natural gas-fired generating capacity, adding three nuclear reactors, and expanding energy efficiency programs. TVA also plans to retire some coal-fired capacity. These plans are informed by TVA's resource planning forecasts, which GAO determined were largely in line with plans and forecasts for the southeastern United States from other sources. For example, TVA forecasts that peak demand will grow at an average annual rate of about 1 percent for about the next 20 years, which is within the range of long-term forecasts for the Southeast from other sources, including the Department of Energy and a GAO nonprobability sample of five investor-owned utilities. TVA also plans to increase its generating capacity and total electricity generation by about 1 percent per year on average, both of which are within the range of plans and forecasts from other sources.

While TVA plans to expand its energy efficiency efforts to meet future demand for electricity, TVA may not be fully considering this alternative. For example, TVA's plans may not reflect the full energy efficiency potential of its service area, since it has not yet completed a study of that potential. As a result, TVA cannot be sure that its current resource plans reflect the full scope and possible extent of energy efficiency programs or that the plans are realistic. In March 2011, TVA commissioned a study on the energy efficiency potential of its service area, which is scheduled to be completed by October 2011. In addition, TVA's use of energy efficiency is constrained by several factors, including TVA's planning approach, which did not allow for potentially more cost-effective levels of energy efficiency in its planning model. In addition, TVA is not subject to certain key mandates and incentives that apply to some other utilities, such as the requirement in California for utilities to consider energy efficiency before other resources.

TVA's financial condition may hamper its ability to fund capital improvements. As of September 30, 2010, TVA's statutory debt was \$23.6 billion, and TVA plans to spend almost \$10 billion by fiscal year 2013 for various capital investment projects. Given the significant delays and cost overruns that TVA has historically experienced, these projects could potentially face similar issues. In addition, under a settlement with the Environmental Protection Agency, TVA agreed to invest \$3 billion to \$5 billion in the next 10 years on new and upgraded pollution controls on existing power plants. TVA also anticipates increases in operating costs. All of these factors could reduce the available funds TVA could use for its planned capital investments. TVA's financial condition leaves it with difficult decisions to make in order to meet electricity demand while keeping its debt within the statutory limit. TVA does not have a formal capital expenditure management plan that identifies assets to be acquired, their costs, and funding sources. The lack of such a plan may impede TVA's long range financial planning.