

Tennessee Valley Authority

Government Performance and Results Act

**Annual Performance Plan
FY 2004**

Submitted

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Introduction

The Government Performance and Results Act of 1993 (GPRA) requires federal agencies to establish standards measuring their performance and effectiveness. Federal agencies are required to develop strategic plans describing their overall goals and objectives, annual performance plans containing quantifiable measures of their progress, and performance reports describing their success in meeting those standards and measures. This document is TVA's Performance Plan for FY 2004, expressed in terms required by GPRA and the Office of Management and Budget (OMB) Circular A-11. This Performance Plan is aligned with TVA's current Strategic Plan submitted to Congress for the period 2000-2005.

TVA is proceeding on the course charted by our vision, strategic objectives, and critical success factors, approved and implemented in 1999. We are, however, re-evaluating the way we report our corporate performance as new reporting practices evolve in private industry. This GPRA document uses the concept of a Triple Bottom Line to report on TVA's performance on its economic, environmental and societal bottom lines.

TVA was not aided by any non-federal parties in the development of this plan.

TVA's Vision

As the nation's largest public power system, TVA serves the people of the Tennessee Valley by producing reliable, affordable electric power, fostering economic development, and maintaining stewardship of the region's natural resources. Established by Congress to improve the quality of life in the Tennessee Valley, TVA remains committed to its mission of public service to the Valley and the nation. To ensure its continuing success in carrying out that mission, TVA is preparing for the restructured energy marketplace by setting increasingly demanding standards for performance and making continuous improvements. Productivity of TVA employees continues to increase, and TVA's performance management system tracks and rewards improved results.

As TVA moves forward, its leadership standard is to achieve excellence in business operations and public service. TVA's vision is Generating Prosperity in the Valley, and TVA is operationalizing that vision through its focus on six strategic objectives:

- Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.
- Meet customers' needs by providing affordable, reliable electric power.
- Demonstrate leadership in supporting sustainable economic development throughout the Tennessee Valley.
- Continue the trend of debt reduction.
- Reduce our delivered cost of power relative to the market.
- Strengthen our working relationships with all of TVA's stakeholders.

As mentioned, this report documents TVA's performance on the Triple Bottom Line of economic, environmental, and societal values. For each of those areas, we have identified the related strategic objectives, critical success factors, and performance measures. Those are described in the narrative on the following pages, and the narrative is summarized in a subsequent table. The report concludes with a series of graphs showing TVA's progress on the performance measures.

Overview of TVA's Triple-Bottom Line

As the electric utility industry is restructured, TVA's challenges include not only maintaining its high level of operational excellence in power operations and river management, but also in delivering economic, environmental, and societal value to a wide spectrum of stakeholders.

For customers of TVA power, value means providing affordable, reliable power. Value also means continually developing and providing new, more flexible pricing and product alternatives to help meet customer demands in a changing environment. In addition, businesses and industries in the Tennessee Valley currently face tremendous financial pressures as the economy continues its slow pace of growth. TVA has the opportunity and responsibility to assist its customers during this challenging time by working with them to understand their energy needs and by providing products to meet their requirements as economically as feasible. TVA provides great certainty to its customers by minimizing fluctuations in power prices during periods of highly volatile energy markets. And importantly, TVA is helping to implement the Administration's National Energy Policy in a number of areas, including working with TVA customers to gradually open the region's electricity markets to competition.

TVA's challenge in providing stakeholder value is to balance the competing demands on TVA resources in order to optimize the value provided to all stakeholders. TVA must allocate limited financial resources among the competing demands of debt reduction, economic development, investing in assets for system load growth, clean air initiatives, and research and development. TVA must also balance the use of water resources for hydroelectric power generation, flood control, recreational use, navigation for Valley shippers, water supply, water quality, and other needs. Not only must TVA continue to manage this delicate balance of competition for resources, but TVA also must communicate this value to its stakeholders. TVA can marshal essential stakeholder support if TVA's stakeholders understand the collective value TVA delivers to them.

TVA provides value to society at large as it manages the region's resources, promotes economic growth, and leads the electric utility industry in operational excellence. In order to continue in its role as a public power provider, TVA is taking a leadership role in making significant investments in air quality, pursuing the development of 21st Century energy technologies, maintaining high standards of performance in operations and safety, and by creating opportunities for economic growth. Ultimately, TVA's value is its unique leadership role in the utility industry.

This report's Triple Bottom Line approach to performance measurement gives TVA a framework for monitoring, assessing, and improving its performance as it delivers value to the people of the Tennessee Valley and the nation.

TVA's Triple Bottom Line Performance Measures

Economic Value

Strategic Objective 1.A. – Meet our customers' needs by providing affordable, reliable electric power.

Critical Success Factor 1.A.1. - Improve power reliability to meet customer requirements.

Performance Measure: • System Reliability (Load Not Served)

Based on input from customers, TVA will continue to emphasize high reliability while meeting market price.

Achievement of this objective will require continued improvements in operating and maintenance processes and the ability to acquire new technologies that improve system performance. A highly skilled, flexible workforce will also be required to provide demanded levels of service at reduced costs.

Critical Success Factor 1.A.2. - Achieve excellence in the asset optimization and production processes.

Performance Measure:• Fossil Plant Equivalent Availability Factor
• Conventional Hydro Plant Equivalent Availability Factor
• Nuclear Plant Net Capacity Factor
• INPO Index

Shifts in the economy and the uncertainty caused by the transition to restructured electric markets have contributed to price volatility and capacity imbalance in many areas of the United States. Developing and managing processes to have existing assets available when they are needed most will be critical to ensuring sufficient energy supply. In addition, forecasting changes in load growth and making optimal decisions on power supply and transmission assets are essential to having power available when it is needed at the lowest possible cost.

Achievement of this objective will require continued improvements in operating and maintenance processes and the ability to acquire new technologies that improve system performance. Continued investment in existing assets will be required, as will continued availability of a skilled, flexible workforce to provide demanded levels of service at reduced costs.

Critical Success Factor 1.A.3. - Provide flexible contracts and competitive pricing of products and services.

Performance Measure:• Energy sales (kWh)
• Wholesale Customers with Continuing Contracts

Success in the marketplace is measured by whether customers continue to choose a company's products and services. As a federal wholesaler of electric power and related services, TVA's customers are 158 distributors and 62 directly served industrial and governmental entities. As electric utility industry restructuring develops, these customers will have increased choices of energy products and service providers. TVA must be

proactive in developing contractual arrangements that provide needed flexibility while ensuring that cost obligations are fairly allocated. TVA's relationships with its customers must benefit all parties in order for TVA to make the transition to being the Valley's energy supplier of choice. Annual measurement of sales will be an indicator of how well TVA's combination of price, quality, reliability, corporate citizenship, and customer service meets or exceeds those offered by other suppliers.

Achievement of this objective will require the creation, development, and delivery of competitively priced products and services with the attributes desired by wholesale and directly served customers in the Valley when TVA's fence is removed and the agency operates in a competitive market.

Strategic Objective 1.B. – Reduce our delivered cost of power relative to the market.

Critical Success Factor 1.B.1. – Generate more for less.

Performance Measure:• Delivered Cost of Power

TVA will be the energy supplier of choice in a deregulated environment by selling reliable electricity competitive with the market price and offering overall value to customers.

Achievement of this objective will require continued reductions in costs as well as require continued improvements in operating and maintenance processes and the ability to acquire new technologies that improve system performance. A highly skilled, flexible workforce will also be required to provide demanded levels of service at reduced costs.

Strategic Objective 1.C. – Continue the trend of debt reduction.

Critical Success Factor 1.C.1. – Invest prudently.

Performance Measure:• Debt / KW Capacity
• Bond Rating

A major component (about 21 percent) of TVA's total cost of power is interest expense. As TVA reduces and manages its outstanding debt it will reduce interest costs thereby shifting its cost structure to one that is better able to adjust to the volatility of a deregulated energy market.

However, this need to reduce debt must be balanced against the continuing need to meet regulatory requirements, invest in existing facilities, and consider new investments in order to ensure a reliable supply of power for the Valley. In addition, TVA must make investments to comply with increasingly restrictive environmental regulations.

Achievement of this objective will require continued reductions in interest costs through close scrutiny of capital expenditures, maintaining an excellent bond rating, and developing innovative financing options. The trend of debt reduction will depend on TVA's ability to maximize cash flow through limiting capital spending, controlling costs, and continued improvement in operation and maintenance processes, which is dependent on a highly skilled workforce.

Environmental Value

Strategic Objective -2.A. – Improve the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.1. - Manage the environmental and safety impacts TVA's operations have on employees and the region.

Performance Measure:

- Reportable Environmental Events
- Sulfur Dioxide Emissions
- Nitrogen Oxide Emissions
- Environmental Research Center Resource Conservation and Recovery Act Cleanup (Percent Complete)

A reportable environmental event (REE) is any occurrence violating regulatory requirements at any TVA facility that triggers a notification to or enforcement action by a regulatory agency. The combustion of fossil fuels results in the production of sulfur dioxide (SO₂) and nitrogen oxide (NO_x). TVA has made multi-million dollar investments resulting in significant reductions in the emissions of these pollutants. Additional reductions in emissions will occur in the future as TVA continues to invest in emissions controls at its fossil facilities.

The Institute of Nuclear Power Operators (INPO) index is TVA's primary nuclear safety index. It is a weighted average of safety system availability, plant reliability, radiation dose, radwaste generated and personnel (industrial) safety. This index is an indicator of overall plant performance as well as a benchmark measurement to the performance of other nuclear plants in the U.S.

TVA is mandated by Federal law to complete the cleanup of contaminated sites at the Environmental Research Center (ERC) reservation in Muscle Shoals, Alabama. The Resource Conservation and Recovery Act (RCRA) Corrective Action Program supports the safe cleanup of contamination caused by decades of federally-funded munitions and fertilizer research and development activities at the ERC.

Achievement of this objective requires that TVA maintain a current understanding of applicable regulations, that investments in emissions control equipment be made and operating procedures ensuring regulatory compliance and employee and public safety be developed and implemented, that personnel be trained to carry out these procedures, and that a mechanism be in place to verify compliance.

Critical Success Factor 2.A.2. - Minimize flood damage by operating the river system according to best management practices with flood control as a priority.

Performance Measure:

- Flood Storage Availability

Flood storage availability indicates TVA's readiness to control damaging floods. The reservoir system is operated based on mandates of the TVA Act and broad policy last reviewed as part of the Lake Improvement Plan in 1991. Based on these guidelines, monthly flood storage availability targets were established. Operation of the system in accordance with these targets ensures that the priority placed on flood damage avoidance is maintained.

Achievement of this objective requires that TVA retain responsibility for integrated river operation, that existing world-class expertise be retained, and that investments in

information technology be made as needed to maintain and improve data collection and modeling capabilities.

Critical Success Factor 2.A.3. - Maintain a navigable commercial waterway from Knoxville to Paducah.

Performance Measure: • Days Navigable Waterway Is Available from Knoxville to Paducah
• Shipper Savings

Commercial shippers rely on TVA to maintain locks and other navigation system components in operable condition and to operate the river system to minimize disruptions to navigation. These performance goals monitor TVA's effectiveness in meeting customer expectations and document the transportation cost savings to shippers using the Tennessee River system.

Achievement of this objective requires that TVA retain responsibility for integrated river operation, that the existing cooperation between TVA and the US Army Corps of Engineers (USACE) be continued, and that resources be available to maintain locks and related facilities. The concrete growth problem at Chickamauga Dam Lock will make it necessary to complete the design and construction of a replacement lock prior to its projected forced closure by 2010. Otherwise, navigation above Chattanooga will be terminated, and the continuous Knoxville-to-Paducah navigable waterway authorized by the TVA Act and completed by TVA in the 1940s will no longer be provided.

Critical Success Factor 2.A.4. - Provide acceptable water quality.

Performance Measure: • Dissolved Oxygen Deficit Due to Forced Outages
• Minimum Flow Achievement
• Watershed Water Quality

Ensuring that aeration systems are functioning and that minimum water flow rates are maintained helps TVA minimize adverse environmental impacts to aquatic habitats and potable water quality associated with dam operations.

There are 611 hydrologic units that make up the Tennessee River system. TVA participates in cooperative efforts involving local and regional public and private partners to improve water quality and natural resource conditions. Annual assessments identify hydrologic unit status by evaluating stream/reservoir ecological health, and shoreline conditions.

Achievement of this objective requires that TVA retain the responsibility for integrated river operation and that cooperative relationships between TVA, state and federal agencies, and various regional river system user groups be continued, that trained personnel be available to identify and implement correction and protection activities, and that TVA retains the capability to conduct watershed assessments.

Critical Success Factor 2.A.5. - Optimize the value of hydro generation subject to flood control, navigation, water quality, and summer reservoir-level constraints.

Performance Measure: • Discretionary Zone Attainment

The flood guide and the minimum operation guide bound the discretionary operating zone. Under TVA's river system operation methodology, operating tributary storage

reservoir levels within the discretionary operating zone when possible optimizes power value.

Achievement of this objective requires that TVA retains the responsibility for integrated river operation and maintains the human and information technology capabilities required to provide an integrated daily operating plan based on real-time hydrologic information. It also requires the capability to maintain the operability of TVA's aging hydro generation infrastructure. It should be noted that TVA is conducting a two-year Reservoir Operations Study to determine if changes in TVA's policies for operating the reservoir system would produce overall greater public value. This study includes extensive public comment and participation and is being done in keeping with requirements of the National Environmental Policy Act (NEPA).

Critical Success Factor 2.A.6. - Support recreational uses of the river system and associated federal lands.

Performance Measure :

- Completed Comprehensive Reservoir Land Plans
- Summer Reservoir Level Attainment

TVA manages 293,000 acres of land around reservoir projects spanning seven states. The reservoir system is a nationally important recreation and tourism resource that attracts millions of visitors per year who enjoy water-based sports and contribute to a \$1 billion industry. Waterfront properties are highly valued and generate demands for growth that often conflict with the protection of public resources and wildlife habitat. TVA manages these potential conflicts with the use of comprehensive reservoir land plans that establish allowable uses for TVA property.

In its 1991 Lake Improvement Plan, TVA made commitments to the user public to maintain tributary reservoirs at specified levels during June and July to support recreational uses, which have significant economic development impacts for the Tennessee Valley. This performance goal measures TVA's effectiveness in meeting the identified expectations of these user communities.

Achievement of this objective requires that TVA retain the human and financial resources to develop comprehensive reservoir land plans, establish and monitor land use agreements, and maintain and operate recreation facilities. TVA must also retain the responsibility for integrated river operation and have available resources to maintain and operate these facilities.

Societal Value

Strategic Objective 3.A. – Demonstrate leadership in supporting sustainable economic development throughout the Tennessee Valley.

Critical Success Factor 3.A.1. - Promote development through targeted, growth initiatives.

Performance Measure:

- Capital Investment Leveraged
- Jobs Created or Retained

TVA's power revenue-financed economic development initiatives focus on retaining, expanding, and attracting industrial and commercial development. These performance goals measure TVA's effectiveness in attracting capital investment by key public and private partners and new jobs created or retained by firms with the support of TVA or Regional Industrial Development Associations.

Achievement of this objective will require a continuing supply of low-cost, reliable electric power; partnerships with community and business leaders; the availability of technical and business services; and the marketing of the Tennessee Valley power service area.

Strategic Objective 3.B. – Strengthen our working relationships with all of TVA’s stakeholders.

Critical Success Factor 3.B.1. - Achieve excellence in the customer value and relationship process.

Performance Measure: • Customer Satisfaction

TVA’s customers have provided consistent feedback on the importance they place on ease of conducting business with TVA and on the importance of quickly responding to their issues. Measuring these areas provides a basis for continuous improvement of each area and ultimately the relationships with the customers. Consistent with the American Customer Satisfaction Index, a basic tenet of the measure is that satisfied customers represent a real, albeit intangible, economic asset to an organization.

Customer Satisfaction is a quarterly measure of customer’s perceptions of TVA’s performance in creating value for power distributor and directly-served customers in the areas of account management, billing, transmission, and contracts (Ease of Doing Business) and customer issue resolution (Issue Resolution). Ease of Doing Business is measured via quarterly surveys of power distributor and directly-served customers. Targets for percent satisfied scores are based on baseline data and comparative industry best-in-class performance. Issue Resolution measures (quarterly), customers’ perceptions of how well TVA performed in resolving customer issues. Targets for percent satisfied scores are based on baseline data and comparative industry best-in-class performance. Ease of Doing Business and Issue resolution scores are weighted based on revenue contribution (80% distributor, 20% directly-served).

FY02 was the first year for tracking this indicator. Performance targets for FY03 have been set based after reviewing industry customer satisfaction data and gaining recommendations from consultant expertise in target setting for satisfaction scores.

Critical Success Factor 3.B.2. - Achieve excellence in stakeholder relations and communications.

Performance Measure:• Stakeholder Process Satisfaction Index

Maintaining effective relationships with stakeholders is essential to TVA’s success and to its continuing existence as a public enterprise. Stakeholders are those who are affected by TVA and those who affect and influence TVA. Stakeholders include employees and retirees, customers, federal, state and local officials and regulators, the financial community and investors, environmental groups, river system interests, economic development leaders, community leaders, and suppliers.

Through positive relationships and communication with stakeholders, TVA can more effectively anticipate issues, maintain consistency in its internal and external communications, facilitate stakeholder understanding of the issues, and be proactive rather than reactive on emerging issues. Long-term effective stakeholder relations will positively impact TVA’s ability to succeed in a changing regulatory and legislative environment. Ongoing feedback on TVA’s processes for working with its various stakeholder groups will help TVA ensure it is effectively meeting their diverse needs for information while providing consistent messages on TVA’s intentions and issues.

Achievement of this objective will require the continuous improvement of processes for identifying and addressing the information and communication needs of a wide variety of stakeholder groups. It will also require the development of clear, consistent messages concerning TVA's intentions and positions concerning natural resource and power supply issues that are important to the people of the Tennessee Valley.

Summary -- TVA's Triple Bottom Line Performance

The following table summarizes information from the previous section and shows the alignment of TVA's vision, strategic objectives, critical success factors, and performance measures with the triple bottom line.

Bottom Line	Strategic Objectives	Critical Success Factors	Performance Measures
Economic Value	1.A Meet our customers' needs by providing affordable, reliable electric power.	1.A.1 Improve power reliability to meet customer requirements.	<ul style="list-style-type: none"> System Reliability (Load Not Served)
		1.A.2 Achieve excellence in the asset optimization and production processes.	<ul style="list-style-type: none"> Fossil Plant Equivalent Availability Factor Conventional Hydro Plant Equivalent Availability Factor Nuclear Plant Net Capacity Factor INPO Index
		1.A.3 Provide flexible contracts and competitive pricing of products and services.	<ul style="list-style-type: none"> Wholesale Customers with Continuing Contracts Energy Sales (kWh)
	1.B Reduce our delivered cost of power relative to the market.	1.B.1 Generate more for less.	<ul style="list-style-type: none"> Delivered Cost of Power
	1.C Continue the trend of debt reduction.	1.C.1 Invest prudently.	<ul style="list-style-type: none"> Debt/KW of Capacity Bond Rating
Environmental Value	2.A Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.	2.A.1 Manage the environmental and safety impacts TVA's operations have on employees and the region.	<ul style="list-style-type: none"> Reportable Environmental Events Sulfur Dioxide Emissions Nitrogen Oxide Emissions ERC RCRA Cleanup (Percent Complete)
		2.A.2 Minimize flood damage by operating the river system according to best management practices with flood control as a priority.	<ul style="list-style-type: none"> Flood Storage Availability

Bottom Line	Strategic Objectives	Critical Success Factors	Performance Measures
Environmental Value, cont'd.		<p>2.A.3 Maintain a navigable commercial waterway from Knoxville to Paducah.</p> <p>2.A.4 Provide acceptable water quality.</p> <p>2.A.5 Optimize the value of hydro generation subject to flood control, navigation, water quality, and summer reservoir-level constraints.</p> <p>2.A.6 Support recreational uses of the river system and associated federal lands.</p>	<ul style="list-style-type: none"> • Days Navigable Waterway Is Available from Knoxville to Paducah • Shipper Savings • Dissolved Oxygen Deficit Due to Forced Outages • Minimum Flow Achievement • Watershed Water Quality • Discretionary Zone Attainment • Completed Comprehensive Reservoir Land Plans • Summer Reservoir Level Attainment
Societal Value	<p>3.A Demonstrate leadership in supporting sustainable economic development throughout the Tennessee Valley.</p> <p>3.B Strengthen our working relationships with all of TVA's.</p>	<p>3.A.1 Promote development through targeted, growth initiatives.</p> <p>3.B.1 Achieve excellence in the customer value and relationship process.</p> <p>3.B.2 Achieve excellence in stakeholder relations and communications.</p>	<ul style="list-style-type: none"> • Capital Investment Leveraged • Jobs Created or Retained • Customer Satisfaction • Stakeholder Process Satisfaction Index

GPRA Program Activity Structure

TVA only has two program activities in its program and financing (P&F) schedules: Power Program and Water and Land Stewardship. Beginning in FY 2000, all funding for all of TVA's activities comes from Power Program revenues with the exception of fees TVA receives that are associated with its multipurpose reservoir operations activities. In accordance with Circular A-11, section 220.8, TVA has developed a GPRA Program Activity Structure to accommodate the interrelationships between many of TVA's stewardship programs.

TVA GPRA Program Structure

TVA P&F Budget Category	Performance Measure
<ul style="list-style-type: none"> • Power Program 	<ul style="list-style-type: none"> • Delivered Cost of Power • Debt / KW of Capacity • Bond Rating • Wholesale Customers with Continuing Contracts • Energy Sales (kWh) • Customer Satisfaction • Stakeholder Process Satisfaction Index • System Reliability (Load Not Served) • Reportable Environmental Events • Sulfur Dioxide Emissions • Nitrogen Oxide Emissions • INPO Index • Fossil Plant Equivalent Availability Factor • Conventional Hydro Plant Equivalent Availability Factor • Nuclear Plant Net Capacity Factor • Capital Investment Leveraged • Jobs Added or Retained
<ul style="list-style-type: none"> • Water & Land Stewardship 	<ul style="list-style-type: none"> • Flood Storage Availability • Days Navigable Waterway is Available from Knoxville to Paducah • Shipper Savings • Dissolved Oxygen Deficit Due to Forced Outages • Minimum Flow Achievement • Watershed Water Quality • Discretionary Zone Attainment • Completed Comprehensive Reservoir Land Plans • Summer Reservoir Level Attainment • ERC RCRA Cleanup (Percent Complete)

Descriptions of Performance Goals and Means to Verify and Validate Values

The following pages describe TVA's GPRA performance goals, its FY 2004 targets, and how performance will be measured and validated.

Economic Value Indicator

System Reliability - Load Not Served

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

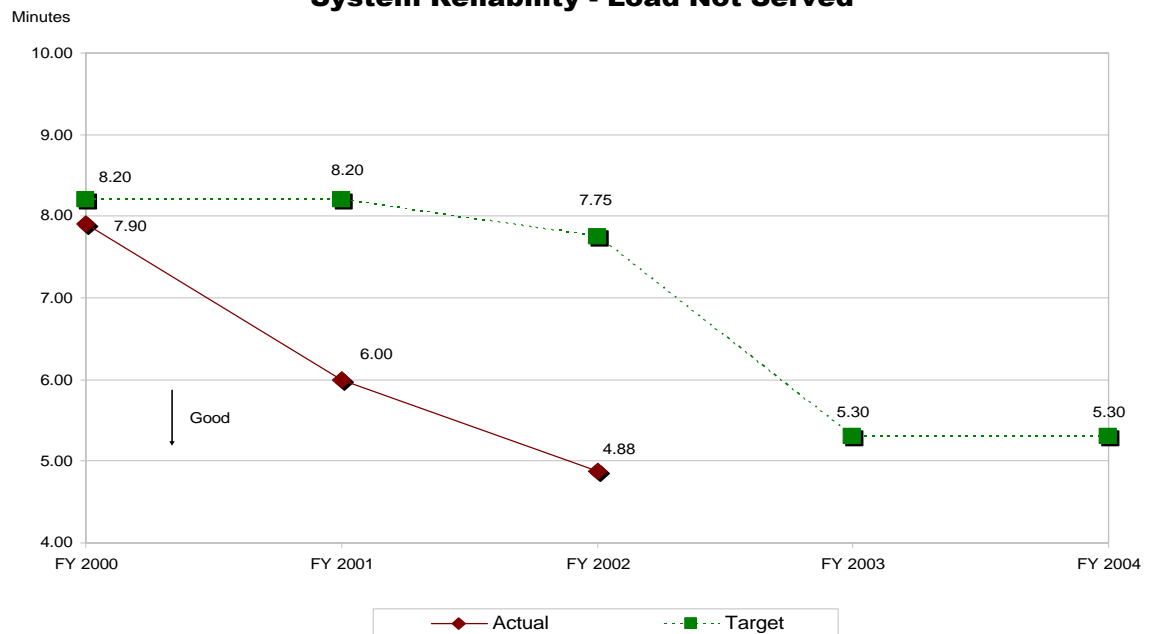
Strategic Objective 1.A: Meet our customers' needs by providing affordable, reliable electric power.

Critical Success Factor 1.A.1: Improve power reliability to meet customer requirements.

Description

Energy customers require a reliable power supply in order to remain competitive and to maintain consumers' safety and convenience. Load Not Served (LNS), measures the reliability of TVA's power supply in terms of minutes the average customer is without power each year.

System Reliability - Load Not Served



Target

FY 2004 Target: 5.30 minutes

Target Explanation: LNS has steadily declined over the past few years in part due to favorable weather, maintenance backlog reduction, and system improvements. Major fluctuations reflect the presence or absence of violent weather conditions (particularly lightning strikes, ice storms, and tornado activity) and unforeseen major equipment failures (such as power transformers and power circuit breakers). Performance targets are based on maintenance efforts to maintain present reliability with an expanding and aging system without an increase in costs. **For comparison purposes, the U.S. industry average for LNS is 16.8 minutes.**

Measurement and Validation: This indicator shows the amount of time an average customer could expect to be interrupted if its load was constant throughout the year. The calculation uses current billing data to estimate the amount of load which was interrupted, the actual clock time of the interruption as related to TVA problems, the load actually served during the time period being examined, knowledge of load cycles for the customer, and the number of minutes in the interruption period.

The formula is:

$$\left(\frac{\text{LNS in MWh}}{\text{LS} + \text{LNS in MWh}} \right) * \text{the number of minutes in the period.}$$
 For example, a 10 MW load is interrupted for 1 hour, resulting in 10 MWh of LNS. If the year long load served is 600,000 MWh, the LNS in minutes is:
$$\left(\frac{10}{10+600,000} \right) * 525,600 (\text{minutes in a year}) = 8.76 \text{ minutes of LNS.}$$

Economic Value Indicator

Fossil (Coal-Fired) Plant Equivalent Availability Factor

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

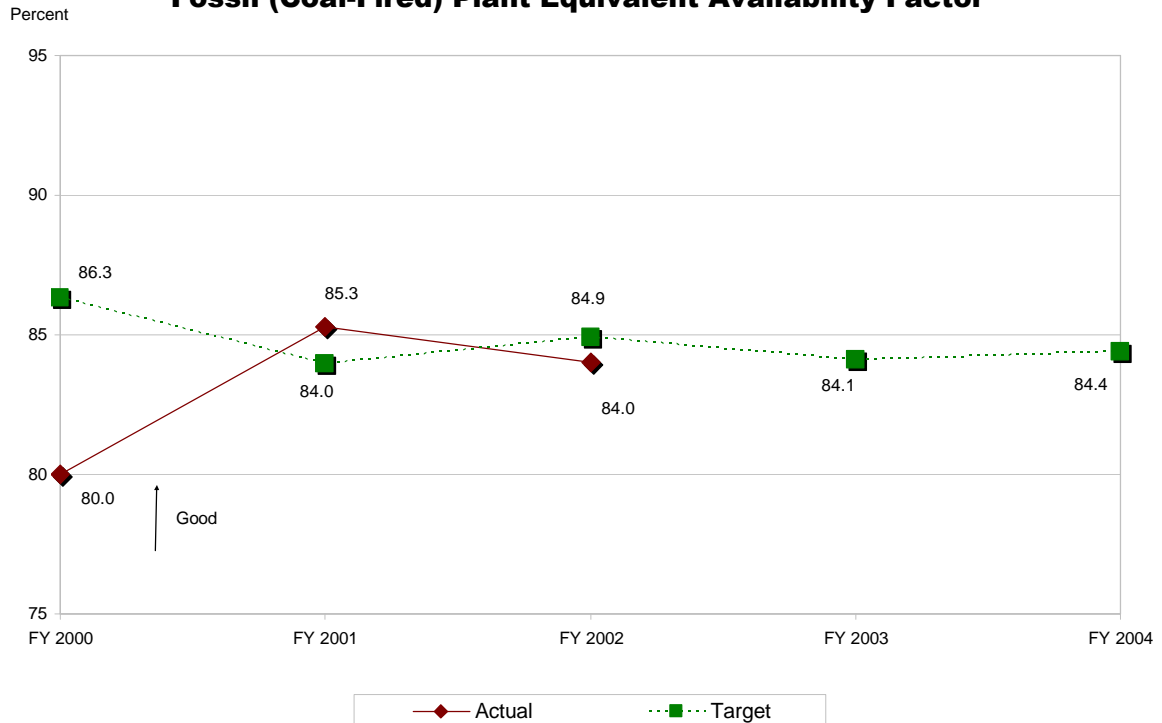
Strategic Objective 1.A: Meet our customers' needs by providing affordable, reliable electric power.

Critical Success Factor 1.A.2: Achieve excellence in the asset optimization and production processes.

Description

The retail distributors and industries that buy from TVA require an adequate supply of electricity at lowest price in order to add value to their customers. To ensure that TVA can meet this demand, TVA's coal-fired plants must operate at optimum availability, defined as the ratio of the amount of energy that can be provided divided by the maximum amount of energy that could be produced over a given period of time.

Fossil (Coal-Fired) Plant Equivalent Availability Factor



Target

FY 2004 Target: 84.4 percent

Target Explanation: Improvement of fossil plant performance reflects significant work to improve reliability of aging power plants. Fluctuations in the rate of improvement and annual targets are due to the yearly variations in the duration of major maintenance work performed and unanticipated equipment failures. **Top quartile performance of TVA's neighboring utilities is 86.2 percent.**

Measurement and Validation: TVA records the energy that can be provided by each fossil unit and divides it by the product of the unit's capacity and number of hours in the measurement period (nominally 8,760).

Economic Value Indicator

Conventional Hydro Equivalent Availability Factor

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

Strategic Objective 1.A: Meet our customers' needs by providing affordable, reliable electric power.

Critical Success Factor 1.A.2: Achieve excellence in the asset optimization and production processes.

Description

TVA's hydroelectric plants work to achieve high performance in plant availability. The hydroelectric plants help to satisfy energy customers' requirements for reliable, available electric power. Hydro-electric plant availability is calculated as the amount of energy available for generation divided by the maximum amount of energy that could be produced over a set period of time.

Conventional Hydro Equivalent Availability Factor



Target

FY 2004 Target: 94.64 percent

Target Explanation: This performance goal shows steady performance at a best-in-class level. Planned outages are a major factor in determining the equivalent availability factor and can vary year-to-year depending on maintenance and plant improvement schedules. **For comparative purposes, industry benchmarking data provided by Hadden Jackson Associates shows average hydro equivalent availability factor to be 89.5%.**

Measurement and Validation: TVA calculates the energy that can be produced by the hydro system based on individual unit capacity and availability and divides that sum by the product of the total system capacity at 100% availability and the number of hours in the measurement period (nominally 8,760). This provides a weighted average (equivalent availability factor) for all units in the hydro system.

Economic Value Indicator

Nuclear Plant Net Capacity Factor (PPF)

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

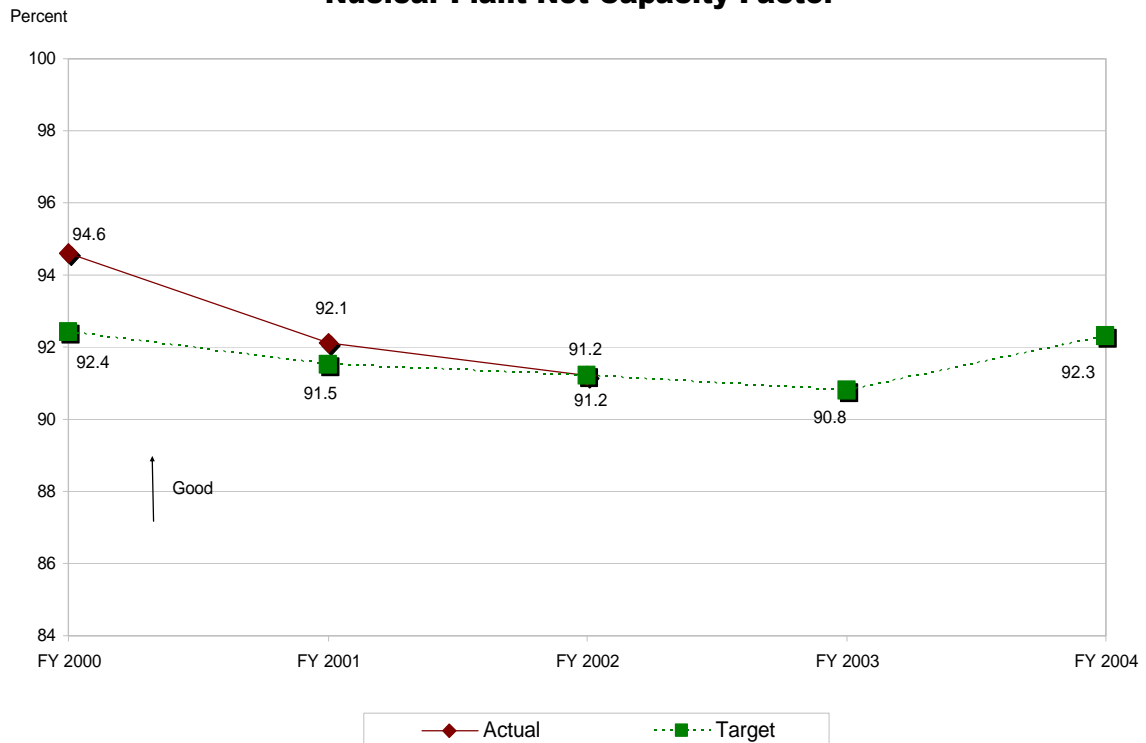
Strategic Objective 1.A: Meet our customers' needs by providing affordable, reliable electric power.

Critical Success Factor 1.A.2: Achieve excellence in the asset optimization and production processes.

Description

To ensure that all nuclear power plants are operating at needed capacity, TVA monitors the "net capacity factor" which is the ratio of the amount of electricity generated divided by the maximum amount of energy that could have been produced by the plant over a specified period of time.

Nuclear Plant Net Capacity Factor



Target

FY 2004 Target: 92.3 percent

Target Explanation: TVA's nuclear plant net capacity factor shows steady improvement with fluctuations in yearly values caused by scheduling of refueling outages. **The median benchmark operating capacity factor for the 12 U.S. multisite nuclear operators is 96.7 and Top Quartile = 98.7.** TVA net capacity factors for 2003 through 2005 are based on achieving an operating capacity factor of 97.1 (between median and top quartile values).

Measurement and Validation: TVA records the energy produced by each nuclear plant and divides it by the product of the unit's capacity and number of hours in the measurement period (nominally 8,760). The availability of all units are combined to determine the annual net capacity factor.

Environmental Value Indicator

Institute of Nuclear Power Operators (INPO) Index

Goal/Strategic Objective/Critical Success Factor

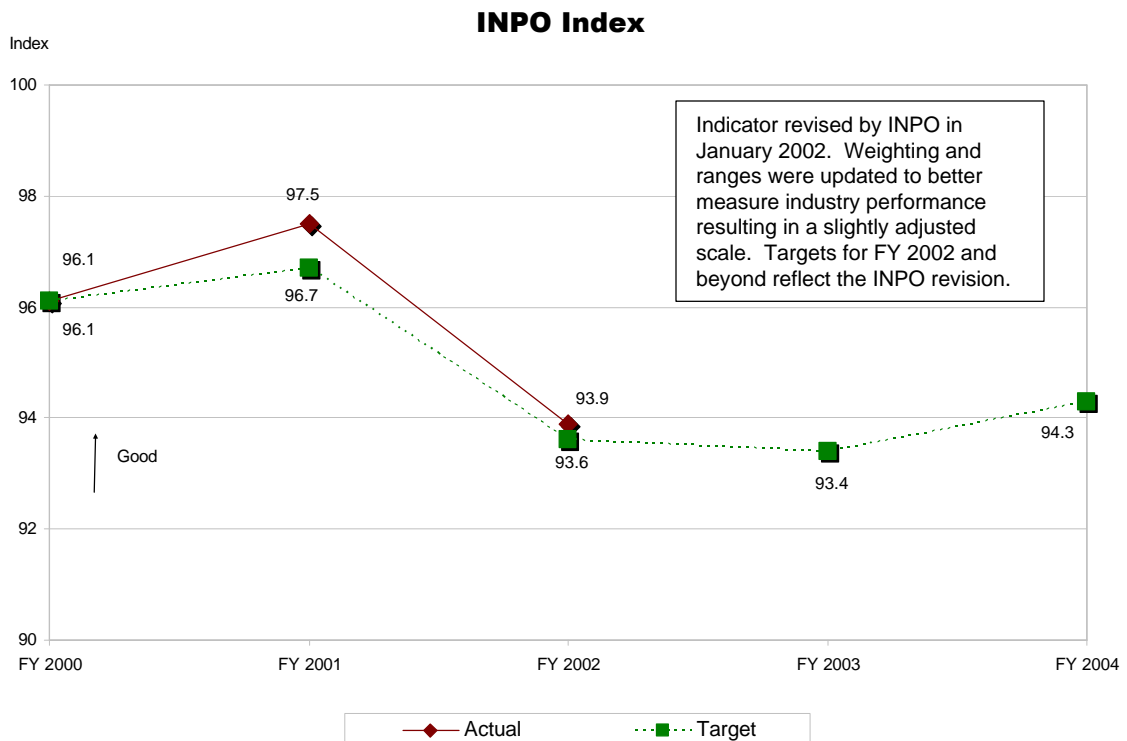
TVA Goal: Supply low-cost reliable power.

Strategic Objective 1.A: Meet our customers' needs by providing affordable, reliable electric power.

Critical Success Factor 1.A.2: Achieve excellence in the asset optimization and production processes.

Description

To ensure that all the nuclear power plants are operating safely and efficiently, each unit is monitored by a calculated INPO Index. This is a weighting of a variety of performance parameters that measure performance and safety. It is measured as a percent between zero and one hundred.



Target

FY 2004 Target: 94.3

Target Explanation: TVA's nuclear plant INPO Index shows improvement trends with fluctuations from year to year as a result of scheduled refueling outages. TVA's INPO index target is based on being top quartile among multi-site nuclear plant operating companies.

Measurement and Validation: The individual parameters measure performance in Unit capability and Losses, Safety System Availability and Reliability, Fuel Reliability, Water Chemistry, Radiation Exposure and Industrial Safety. These individual parameters are weighted and combined into a single measurement Index. This index provides an indication of overall plant performance as well as a benchmark measurement to other plants' performance. The INPO Index is tracked monthly and the targets are determined based on industry top quartile performance. Each year's September calculation will be reported as the annual performance on this measure.

Economic Value Indicator

Wholesale Customers with Continuing Contracts

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

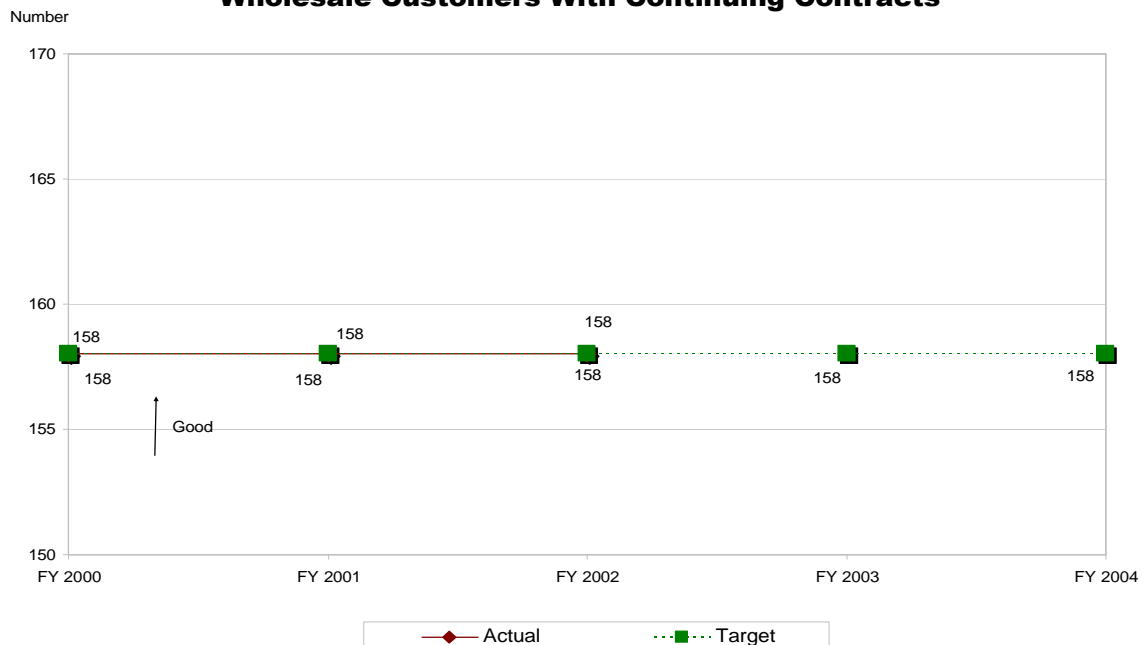
Strategic Objective 1.A: Meet our customers' needs by providing affordable, reliable electric power.

Critical Success Factor 1.A.3: Provide flexible contracts and competitive pricing of products and services.

Description

TVA's existing power contracts with its distributors have rolling 5, 10, or 15 year terms. In order to end its commitment to purchase TVA power, a distributor must give notice either 5, 10, or 15 years (as applicable) prior to the desired contract termination date. In anticipation of utility industry restructuring, many of TVA's customers are seeking a more flexible position from which to respond to competitive challenges. TVA is working to address issues of distributors that want more contract flexibility to meet their needs, while not shifting the cost obligations of these arrangements to other customers. These new contracting alternatives, in combination with TVA's continued emphasis on providing low-cost reliable power, will help TVA retain its present customer base.

Wholesale Customers With Continuing Contracts



Target

FY 2004 Target: 158

Target Explanation: TVA will maintain its existing customer base. In FY 2000, the City of Lebanon, Tennessee elected to sell its electric distribution system. The system was acquired by neighboring Middle Tennessee Electric Membership Cooperative located in Murfreesboro, Tennessee. Both systems were distributors of TVA power and the consolidation brings the total number of distributors of TVA power to 158. The FY 2003 and FY 2004 targets have been restated to reflect this consolidation.

Measurement and Validation: On September 30, 2003, TVA will identify the number of its distributors that have continuing contracts (that have not provided notice of intent to terminate their contract).

Economic Value Indicator

Energy Sales (kWh)

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

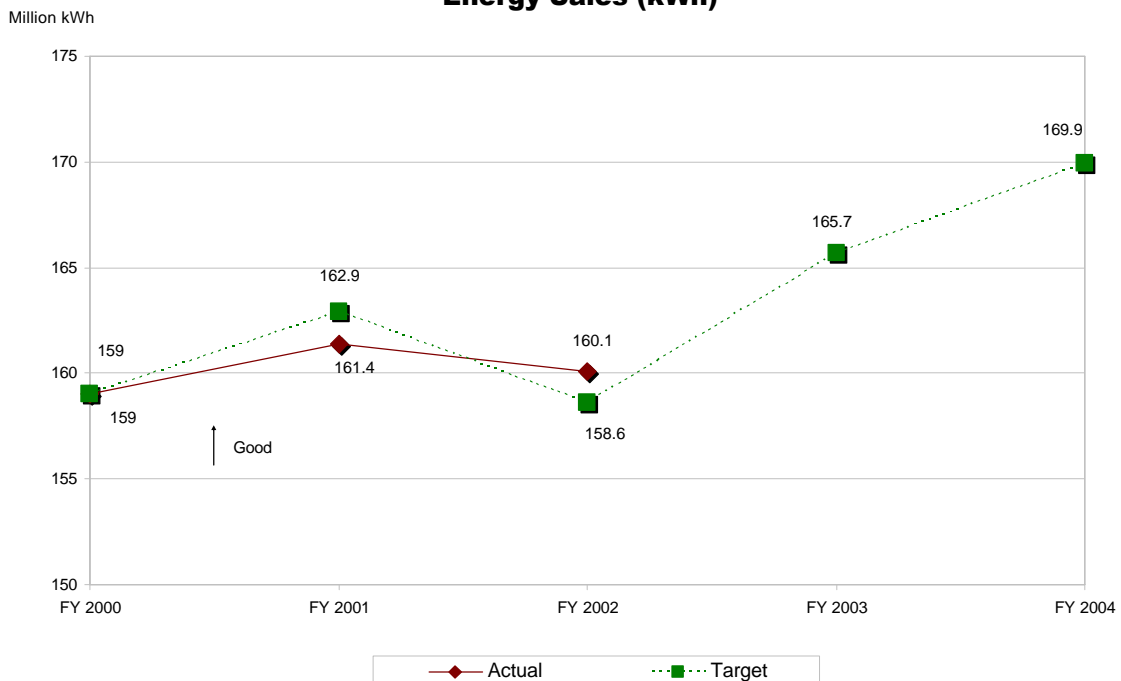
Strategic Objective 1.A: Meet our customers' needs by providing affordable, reliable electric power..

Critical Success Factor 1.A.3: Provide flexible contracts and competitive pricing of products and services.

Description

TVA takes very seriously its obligation to ensure that reliable generating and transmission capacity is available to meet its customers' needs. The ability to accurately forecast customers' energy needs is an important component of the job of optimizing the use of TVA's assets. Additionally, a trend of *increasing* sales provides a broader base over which to spread TVA's fixed costs and thereby reduce the average cost of power delivered.

Energy Sales (kWh)



Target

FY 2004 Target: 169.9 Million kWh

Target Explanation: The target is based on TVA's periodic forecasts of energy sales which takes into account general economic conditions of the region, population growth, energy prices, and customer behavior patterns.

Measurement and Validation: TVA's annual sales figures are published in its annual report which is audited by an independent accounting firm.

Economic Value Indicator

Delivered Cost of Power

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

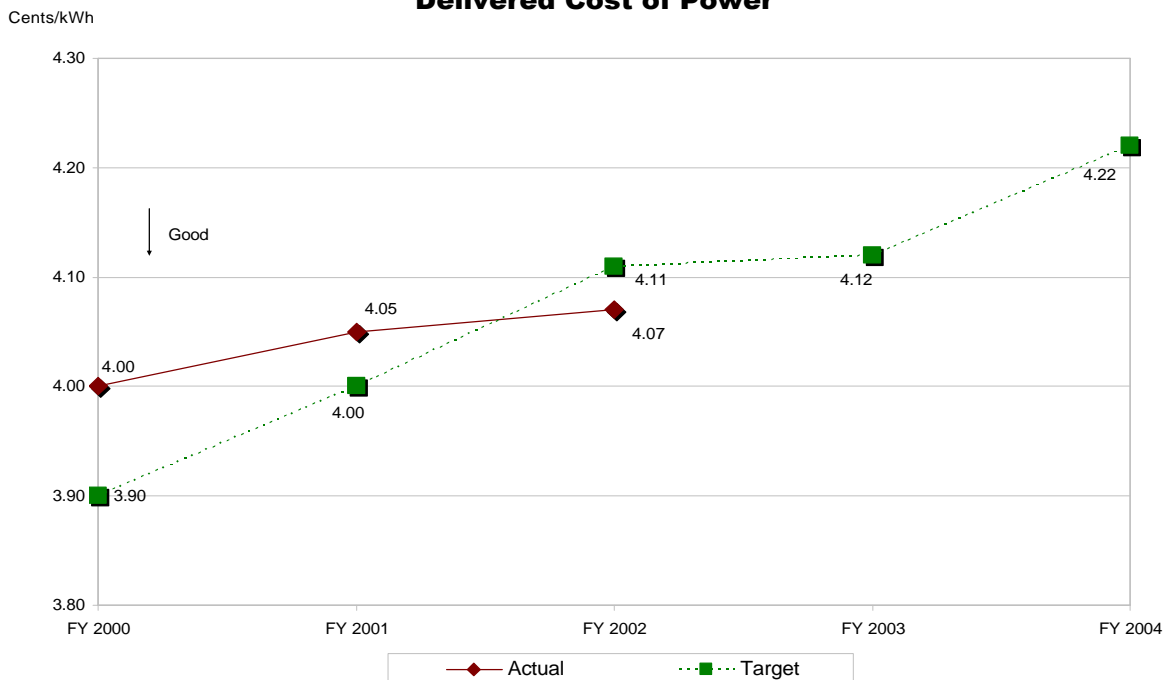
Strategic Objective 1.B: Reduce our delivered cost of power relative to the market.

Critical Success Factor 1.B.1: Generate more for less.

Description

The cost of electric power is crucial to energy customers, who depend on a low-cost, efficient, and dependable source of energy in order to be competitive in their businesses and cost-effective in their household budgets. To determine the cost of providing power to its energy customers, TVA divides its total costs to deliver power (excluding accounting write-offs) by the total amount of power delivered. Over time, reducing its delivered cost of power, relative to the market, enables TVA to remain competitive in a potentially deregulated and openly competitive environment. This assures TVA's customers competitively-priced electricity.

Delivered Cost of Power



Target

FY 2004 Target: 4.22 cents/kWh

Target Explanation: Target based on projected costs and energy sales.

Measurement and Validation: The electric power industry standard for measuring total cost is expressed in cents per kilowatt hours produced. TVA sums its total costs from its income statement and divides them by the total kWh sold. The FY 2004 target reflects a slight increase in total costs (excluding write-offs) and an increase in energy sales.

Economic Value Indicator

Debt / kW of Capacity

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

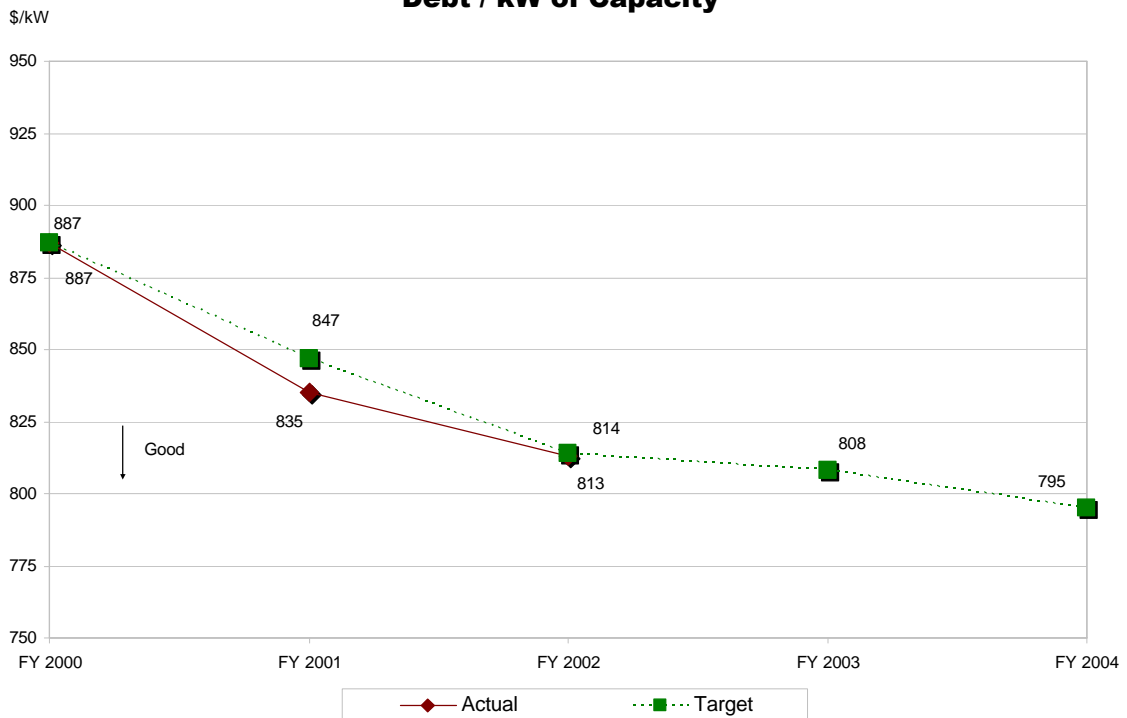
Strategic Objective 1.C: Continue the trend of debt reduction.

Critical Success Factor 1.C.1: Invest prudently.

Description

TVA will best be able to meet the projected market price for electricity by reducing its high fixed costs for interest (now about 25% of TVA's total cost of power). As TVA reduces and manages its outstanding debt, thus reducing its interest costs, it will shift its cost structure to one that is better able to adjust to the increased volatility of a future deregulated energy market. At the same time, TVA is challenged to provide the capital resources required to support the changing demands on its power system (generation and transmission) and to modify its existing plants as necessary to comply with environmental regulations. A good measure for TVA's debt burden, in context with the size of its business, is the amount of "debt per kW of generating capacity." Lowering this measure will produce a more flexible cost structure and a stronger balance sheet.

Debt / kW of Capacity



Target

FY 2004 Target: \$795/kW

Target Explanation: The targets (debt/kW) are based on a combination of *decreases* in outstanding debt and *increases* in generating capacity over this time period.

Measurement and Validation: TVA will report both its outstanding debt and the amount of generating capacity (owned and leased) in its annual report, which is audited by an independent accounting firm. The FY 2004 target is currently under review.

Economic Value Indicator

Bond Rating

Goal/Strategic Objective/Critical Success Factor

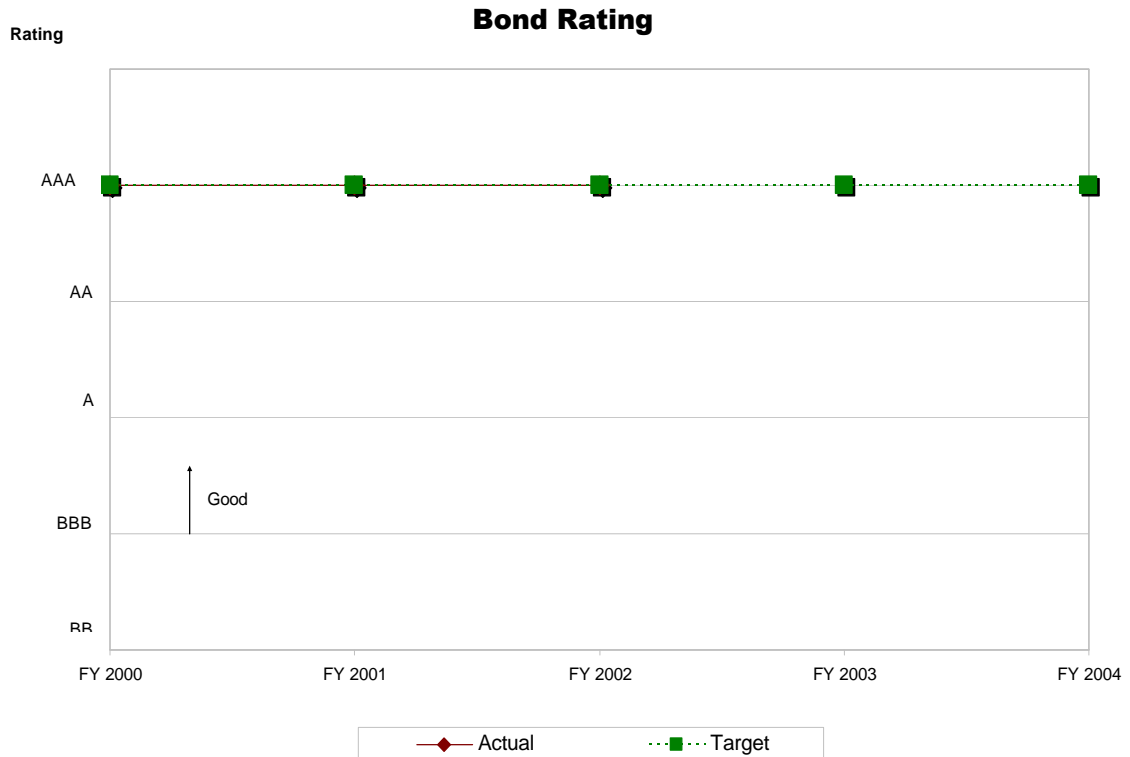
TVA Goal: Supply low-cost reliable power.

Strategic Objective 1.C: Continue the trend of debt reduction.

Critical Success Factor 1.C.1: Invest prudently.

Description

This performance measure monitors TVA's success in maintaining its Triple A rating. According to Moody's Investors Service, "The Aaa ratings on the Tennessee Valley Authority (TVA) power bonds derive from the legislation defining its business charter and authority, its strong operational performance and its status as a wholly-owned corporate agency of the US Government although TVA's bonds are not guaranteed by the US Government."



Target

FY 2004 Target: Triple-A

Target Explanation: TVA must maintain its excellent bond rating to meet interest expense and debt reduction targets.

Measurement and Validation: TVA will report its bond rating as reported by the major bond rating agencies as of the end of September each year.

Environmental Value Indicator

Reportable Environmental Events

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

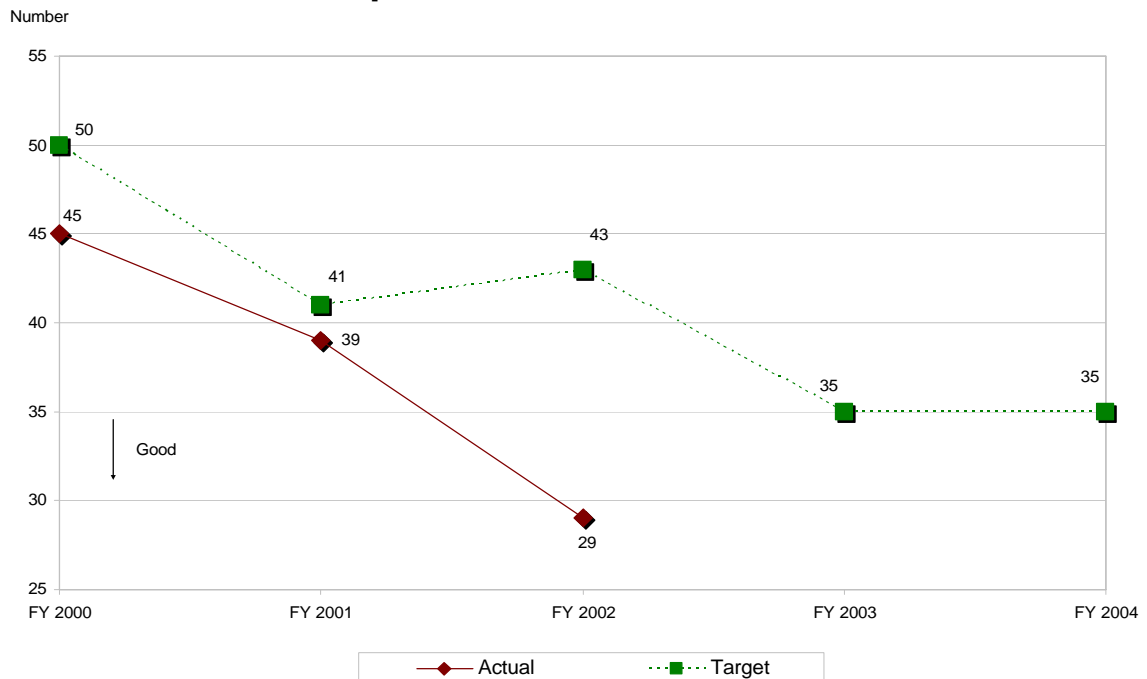
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.1: Manage the environmental and safety impacts TVA's operations have on employees and the region.

Description

Energy customers and the general public expect TVA to be environmentally responsible in conducting operations in order to protect public health, natural resources, and environmental quality. TVA measures the performance of its operations in meeting environmental regulatory compliance requirements by monitoring occurrences of violations at TVA facilities that trigger notifications to, or enforcement actions by, a regulatory agency.

Reportable Environmental Events



Target

FY 2004 Target: 35

Target Explanation: Targets represent a TVA-wide consolidated performance goal. Targets are reviewed and adjusted annually based on actual performance levels, projected changes in operational conditions and regulatory requirements, and planned improvements.

Measurement and Validation: Each organization is responsible for reporting occurrences of violations that trigger notifications to, or enforcement actions by, a regulatory agency. Data are reported monthly and accumulated throughout the year to determine annual performance.

Environmental Value Indicator

Sulfur Dioxide Emissions

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

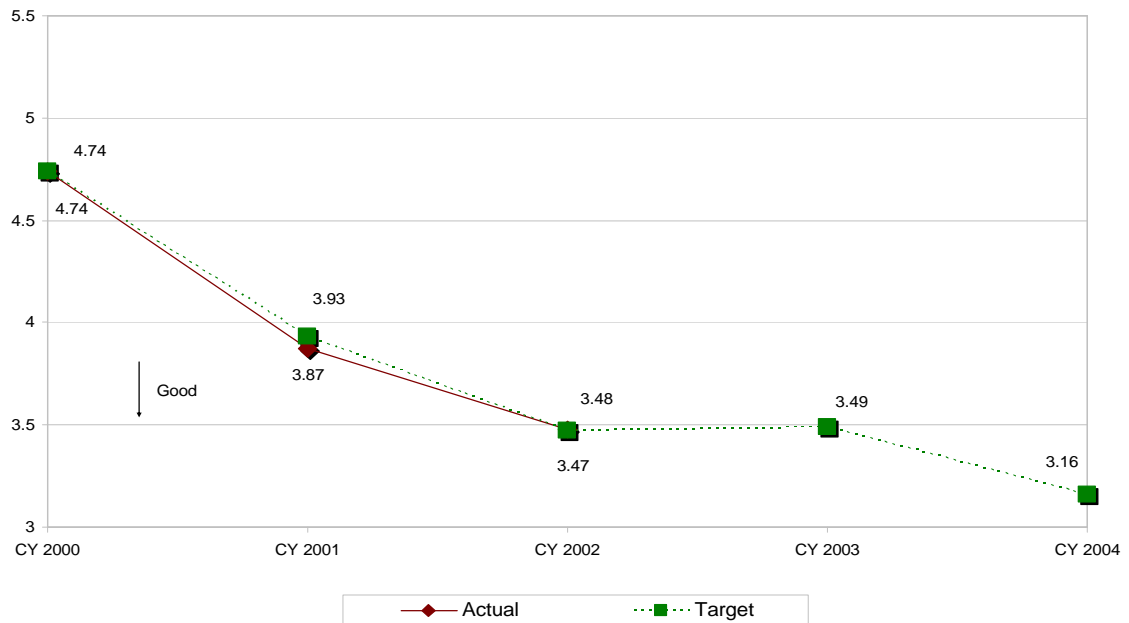
Critical Success Factor 2.A.1: Manage the environmental and safety impacts TVA's operations have on employees and the region.

Description

Energy customers and the general public expect TVA to be environmentally responsible while conducting operations in order to protect public health and natural resource quality. TVA reduces its SO₂ emissions by using scrubbers and switching to lower sulfur fuels. TVA monitors its emissions to verify compliance with the Clean Air Act.

Tons SO₂ / GWh
Total Generation

Sulfur Dioxide Emissions



Target

CY 2004 Target: 3.16 Tons / GWH Total Generation

Target Explanation: Targets are established to ensure compliance with the Clean Air Act and to meet an internal goal of 40% reduction from 1999 to 2005. Emissions are estimated using projected generation levels and emission rates for each generating unit. In order to remain consistent with EPA's calendar year reporting requirements for emissions, targets for this indicator are set by calendar year.

Measurement and Validation: SO₂ is measured using certified stack Continuous Emissions Monitors and reported on an annual calendar year basis to the public through an EPA emissions database. Total tons of SO₂ emitted are divided by total TVA system (calendar year) generation to determine the tons emitted per GWH of generation.

Environmental Value Indicator

Nitrogen Oxide Emissions

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

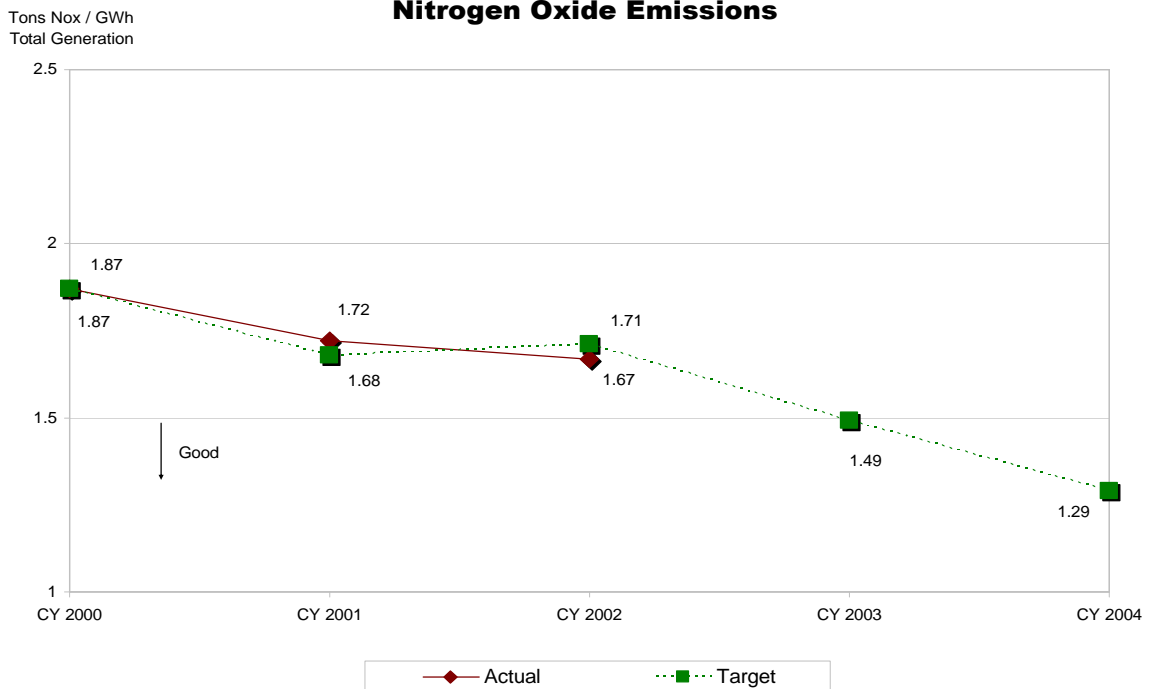
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.1: Manage the environmental and safety impacts TVA's operations have on employees and the region.

Description

Energy customers and the general public expect TVA to be environmentally responsible while conducting operations in order to protect public health and natural resource quality. TVA reduces its nitrogen oxide emissions using technology and operational improvements to maintain compliance with Clean Air Act and to help achieve attainment of local ambient air quality standards in the valley. TVA monitors its emissions to verify compliance with the Clean Air Act.

Nitrogen Oxide Emissions



Target

CY 2004 Target: 1.29 Tons / GWH Total Generation

Target Explanation: Targets are established to ensure compliance with the Clean Air Act, State Implementation Plans, and an internal goal of 45% reduction from 1999 to 2005. Emissions are estimated using projected generation and emission rates for each generating unit. In order to remain consistent with EPA's calendar year reporting requirements for emissions, targets for this indicator are set by calendar year. End-of-calendar year 2003 targets will be reported in the Annual Performance Report for FY 2003 to be submitted to Congress in March 2004.

Measurement and Validation: NOx is measured via certified stack Continuous Emissions Monitors and reported on an annual calendar year basis to the public through the EPA database. Total tons of NOx emitted are divided by total TVA system (calendar year) generation to determine the tons emitted per GWH of generation.

Environmental Value Indicator

Environmental Research Center RCRA Cleanup (ERC)

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

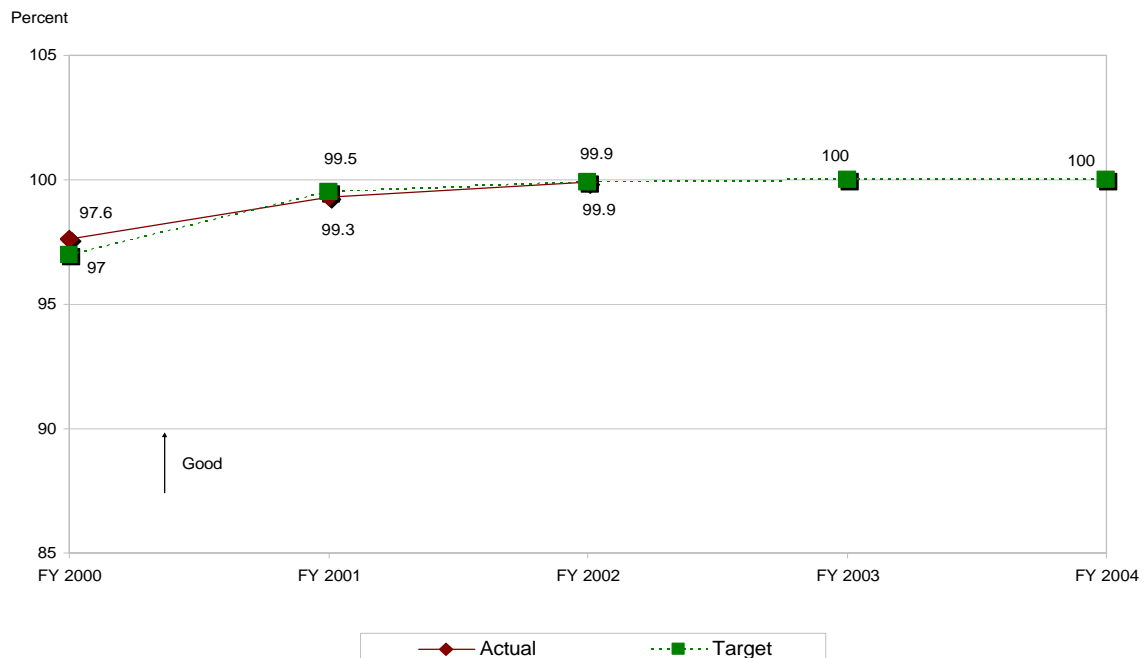
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.1: Manage the environmental and safety impacts TVA's operations have on employees and the region.

Description

TVA is mandated by Federal law to complete the cleanup of contaminated sites at the Environmental Research Center (ERC) reservation in Muscle Shoals, Alabama. The Resource Conservation and Recovery Act (RCRA) Corrective Action Program supports the safe cleanup of contamination caused by decades of federally-funded munitions and fertilizer research and development activities at the ERC.

Environmental Research Center RCRA Cleanup (ERC)



Target

FY 2004 Target: 100 percent complete

Target Explanation: Percent completion based on planned remediation activities. Assumes no change in regulator requirements. Clean up is expected to be completed in FY 2003.

Measurement and Validation: TVA has developed a plan for achieving cleanup and remediation of the ERC site based on regulator requirements. This indicator tracks completion of these planned cleanup activities. Performance is reported based on the following formula:

ERC Site Cleanup (percent Complete)= Percent Complete ERC RCRA Corrective Action project (times 0.5) plus Percent of Designated ERC Structures Demolished (times 0.45) plus Percent of Surplus Chemical Disposal (times 0.05).

Environmental Value Indicator

Flood Storage Availability

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

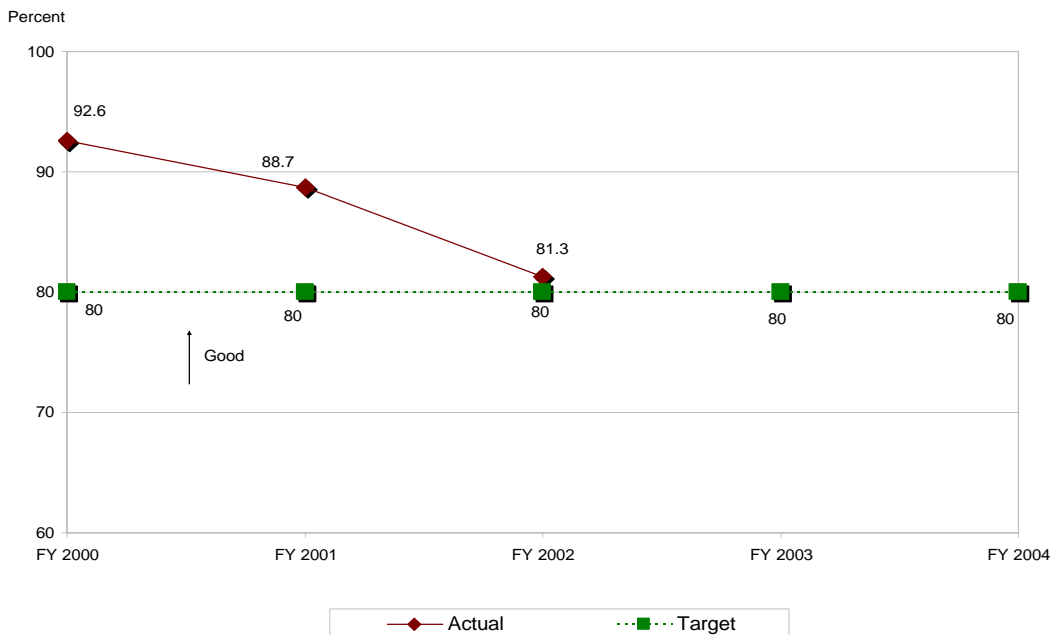
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.2: Minimize flood damage by operating the river system according to best management practices with flood control as a priority.

Description

Flood storage availability indicates TVA's readiness to control damaging floods. The reservoir system is operated based on mandates of the TVA Act and broad policy last reviewed as part of the Lake Improvement Plan in 1991. Based on these guidelines, monthly flood storage availability targets were established for each of TVA's eleven storage projects. Operation of the system in accordance with these targets ensures that the priority placed on flood damage avoidance is maintained.

Flood Storage Availability



Target

FY 2004 Target: 80 percent

Target Explanation: While performance on this measure is strongly affected by rainfall patterns, TVA projected a 5% gradual increase in performance based on planned improvements in computer models and operating procedures. The original target, beginning in 1995, was 75%.

Measurement and Validation: This performance measure is defined as the percent of project days when actual storage availability is \geq allocated storage. Eleven tributary storage projects are included in this measure; in addition, a measure of the composite eastern system is also included. TVA measures reservoir levels at midnight each day for each of the projects. In a 30-day month, each storage project has a maximum of 30 project days when actual reservoir storage can be equal to or greater than the allocated storage. TVA sums the days when storage meets or exceeds the guideline. For example, if all 11 projects and the eastern composite had reservoir storage levels above those required for 20 of the 30 days, monthly performance would be $240/360=66.7\%$. Data are reported monthly and are accumulated over the entire year to determine the annual performance on this measure.

Environmental Value Indicator

Days Navigable Waterway is Available from Knoxville to Paducah

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

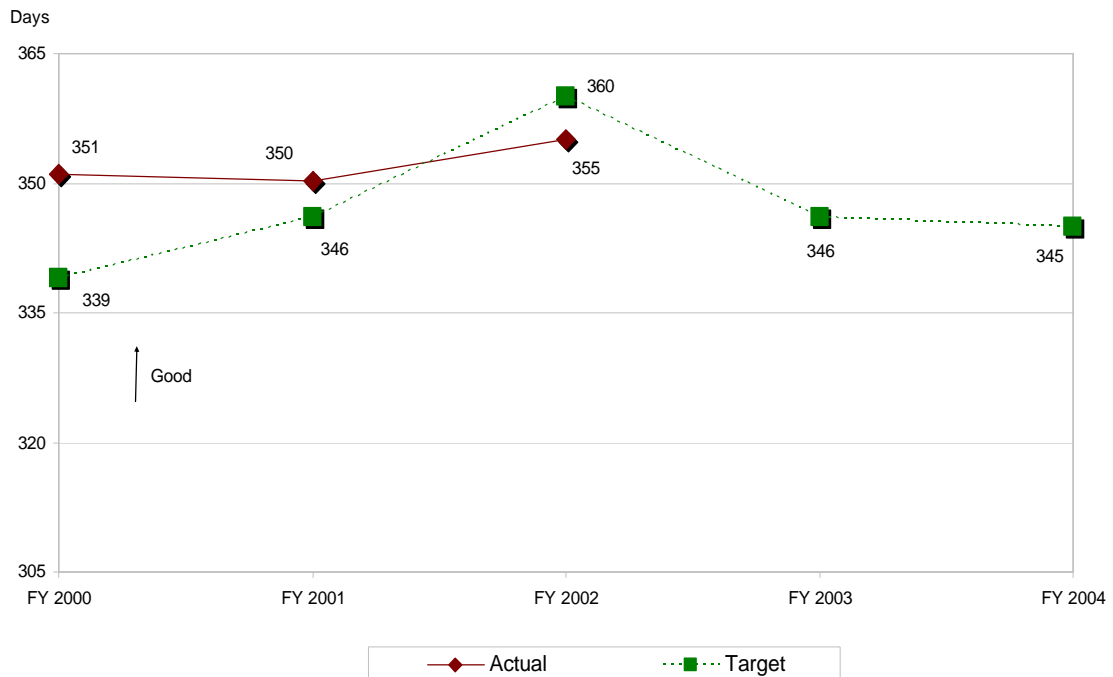
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.3: Maintain a navigable commercial waterway from Knoxville to Paducah.

Description

Commercial shippers rely on TVA to maintain locks and other navigation system components in operable condition and to operate the river system to minimize disruptions to navigation. TVA has a statutory responsibility to maintain a navigable (9 foot) channel along the Tennessee River from Knoxville to Paducah.

Days Navigable Waterway is Available from Knoxville to Paducah



Target

FY 2004 Target: 345 days

Target Explanation: TVA's goal is to minimize the number of days the navigation system is inoperable due to lock outages and unscheduled river closures. Targets reflect outages scheduled at dams where there are no auxiliary locks.

Measurement and Validation: This indicator measures instances when any segment of the Tennessee River is closed to navigation traffic. Lock operation and maintenance reports are the source of this information.

Environmental Value Indicator

Shipper Savings

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

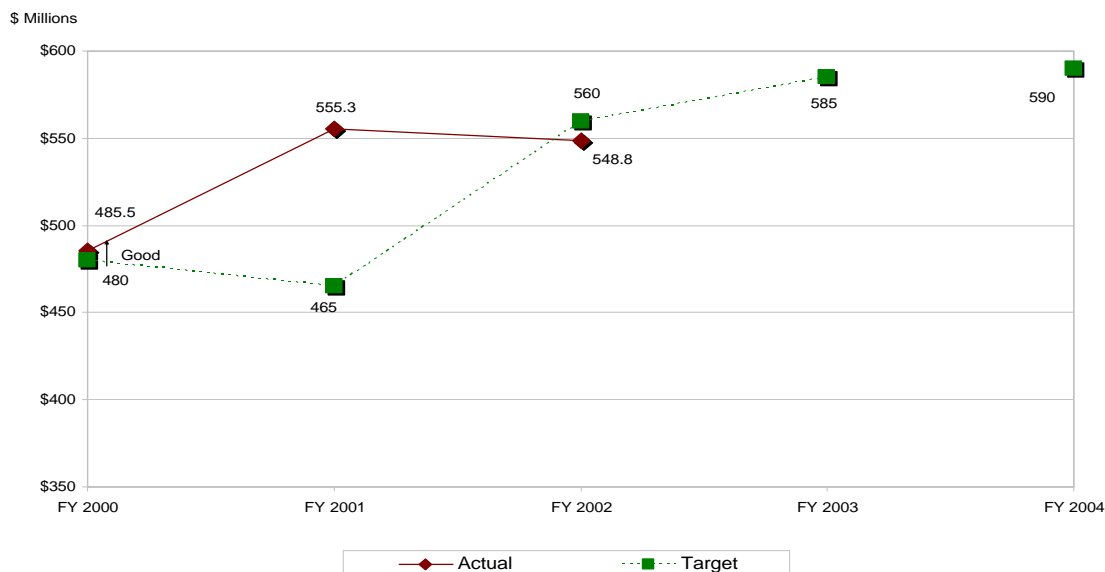
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.3: Maintain a navigable commercial waterway from Knoxville to Paducah.

Description

Commercial shippers rely on TVA to maintain locks and other navigation system components in operable condition and to operate the river system to minimize disruptions to navigation. TVA has a statutory responsibility to maintain a navigable channel along the Tennessee River from Knoxville to Paducah. Shipper savings include reductions in costs accruing to those shipping by barge. If the navigation system is not operable for extended periods of time, shipper savings are reduced.

Shipper Savings



Target

FY 2004 Target: \$590 million

Target Explanation: The target is based on projected traffic.

Measurement and Validation: Shipper savings is calculated as the product of the tons being shipped on the Tennessee River and the savings per ton attributed to barge transportation. Barge transportation is the cheapest mode for movement of certain commodities, thus barge transportation is compared in the indicator to the next least expensive mode which is generally rail carriage. In the indicator, average savings per ton is estimated by TVA to be \$9.24 (2000 data – 1st quarter 2000 rates). This number was a product of a TVA study undertaken for the U. S. Army Corps of Engineers (USACE), Huntington District, in 1995 as a component of their update of the Kentucky Lock study. These modal transportation rates are a combination of survey data and estimates from TVA's Barge Costing Model and the Rebee Rail Costing model. The rates are estimated by component (line haul cost, transfer cost, loading and unloading cost) and do not include any "water compelled" rate effect, that is, what the rail rate would be expected to be without barge competition. Assumptions in the calculation reflect an estimated margin for carrier profit. The data used to estimate total current tonnage transported on the Tennessee River are a combination of river and lock data. The river data is published annually by the USACE Waterborne Commerce Statistical Center (WCSC) in New Orleans, Louisiana, with about a two year lag. The lock data are published by the USACE Water Resources Support Center in Fort Belvoir, Virginia with a two month lag. In the shipper savings indicator TVA navigation economists forecast Tennessee River traffic by year.

Environmental Value Indicator

Dissolved Oxygen Deficit Due to Forced Outages

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

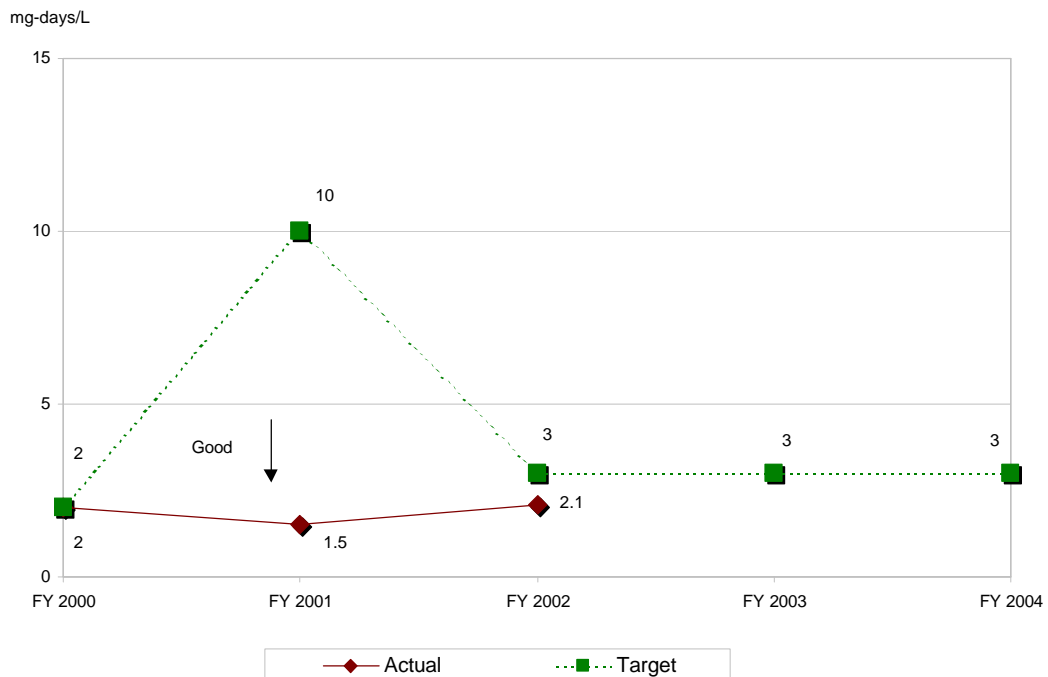
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.4: Provide acceptable water quality.

Description

Dissolved oxygen is an important component of water quality and vital to aquatic health. Dams have a detrimental impact on dissolved oxygen. The Reservoir Releases Improvement program initiated in the 1990's involved the installation of 15 aeration systems to reduce the negative impacts of TVA dams on tailwaters. These aeration systems are operated to help meet dissolved oxygen (DO) targets in 16 tailwaters. The DO target concentrations are 6 mg/L for cold water tailwaters and 4 mg/L for cool and warm tailwaters. The period of aeration equipment operation is site specific, but can range from mid-April through December.

Dissolved Oxygen Deficit Due to Forced Outages



Target

FY 2004 Target: 3 Cumulative DO Deficit, mg-days/L

Target Explanation: TVA's goal is to minimize the number of days that DO levels are below target (DO deficit) due to the malfunction of an aeration system. (DO deficit is a composite measure of how low DO concentrations dropped and how long the DO conditions persisted).

Measurement and Validation: Of the 16 tailwaters monitored, 9 sites have continuous sampling systems. Additionally, all 16 tailwaters are sampled on a weekly or biweekly schedule at designated compliance points. The measure is calculated by subtracting the actual DO concentration during aeration system forced outages from the targeted DO concentration and multiplying this value by the number of days the actual concentration is below the target because of equipment forced outages.

Environmental Value Indicator

Minimum Flow Achievement

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

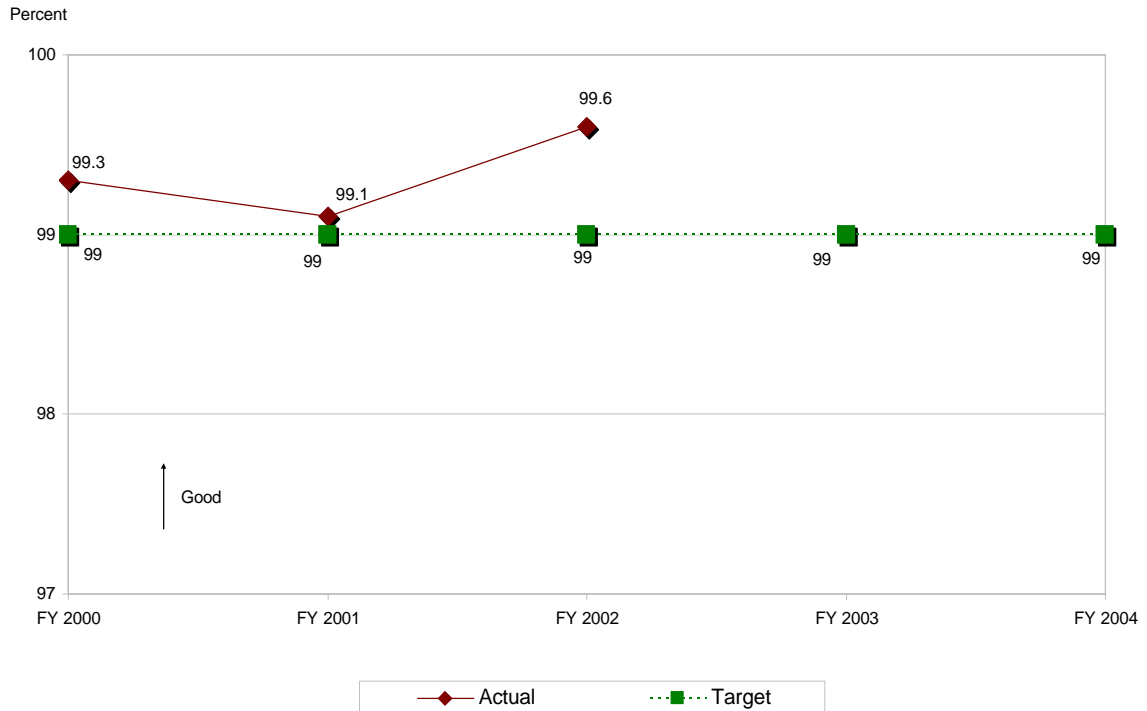
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.4: Provide acceptable water quality.

Description

Dissolved oxygen levels, water temperature, and water flow rates are drastically altered by the vacillating effects of water storage and hydro generation processes. Fisheries, aquatic habitat, and potable water quality bear the most stress. TVA maintains minimum flows at 29 locations to improve the quality of water. Sustaining these minimum flows helps TVA minimize adverse environmental impacts to aquatic habitats and potable water quality associated with dam operations.

Minimum Flow Achievement



Target

FY 2004 Target: 99 percent

Target Explanation: Targets based on planned operating schedules at 29 locations.

Measurement and Validation: The performance measure is defined as the percentage of location days actual flow met the minimum flow target. Locations included in this measure include both TVA dams and other river sites where minimum flow criteria have been established. Criteria may be hourly, daily, or bi-weekly average flow. Flow measurement devices are provided at dams and other locations. Operational records are checked daily for compliance. TVA sums the days when a violation occurred at each of the 29 locations and divides by 29 locations times the days/month. Data are reported monthly and accumulated over the entire year to determine annual performance of this measure.

Environmental Value Indicator

Watershed Water Quality

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

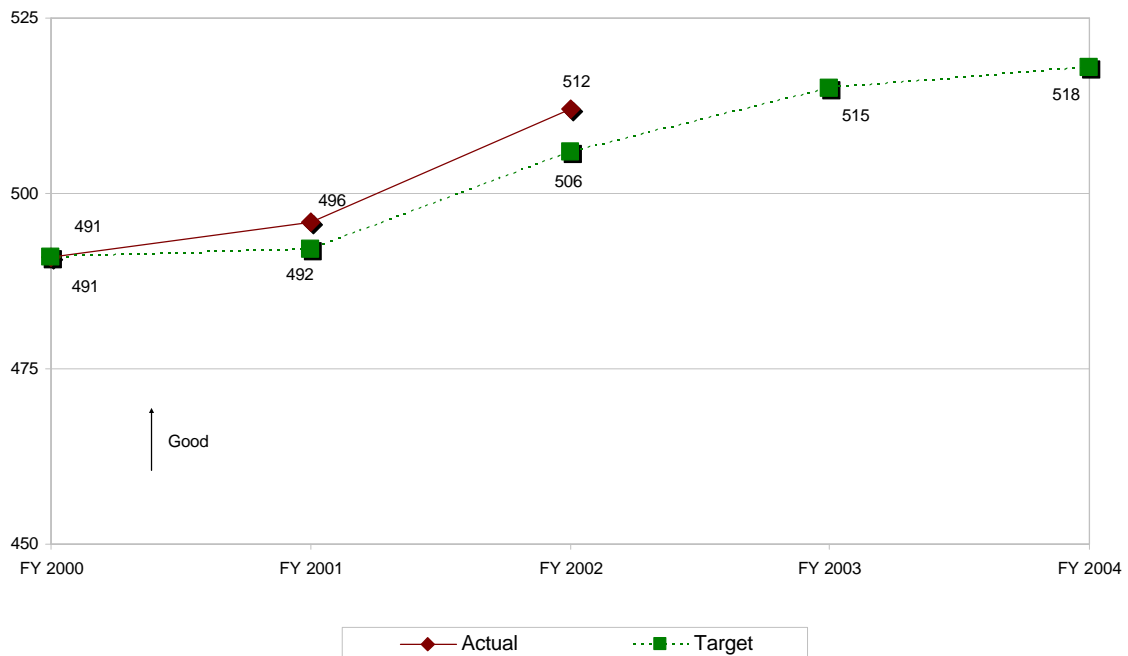
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.4: Provide acceptable water quality.

Description

There are 611 watershed units that make up the Tennessee River system. TVA participates in cooperative efforts involving local and regional public and private partners to improve water quality and natural resource conditions. Annual assessments identify watershed unit status by evaluating stream and reservoir ecological health and shoreline conditions.

Watershed Water Quality



Target

FY 2004 Target: 518

Target Explanation: Targets based primarily on indices of water quality and shoreline condition of watershed units.

Measurement and Validation: TVA periodically assesses water resource and shoreline conditions of watershed units. These assessments measure how well waters in these units support beneficial uses (fishing, swimming, support of fish and wildlife, water supply) and sensitive natural resource areas as desired by the various stakeholders. Quality of watershed condition is generally measured using ecological health indicators of streams and reservoirs, state water quality assessments, and indices of shoreline/streambank riparian conditions. Watershed unit ratings (Good, Fair, or Poor) are updated annually based on current information.

Environmental Value Indicator

Discretionary Zone Attainment

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

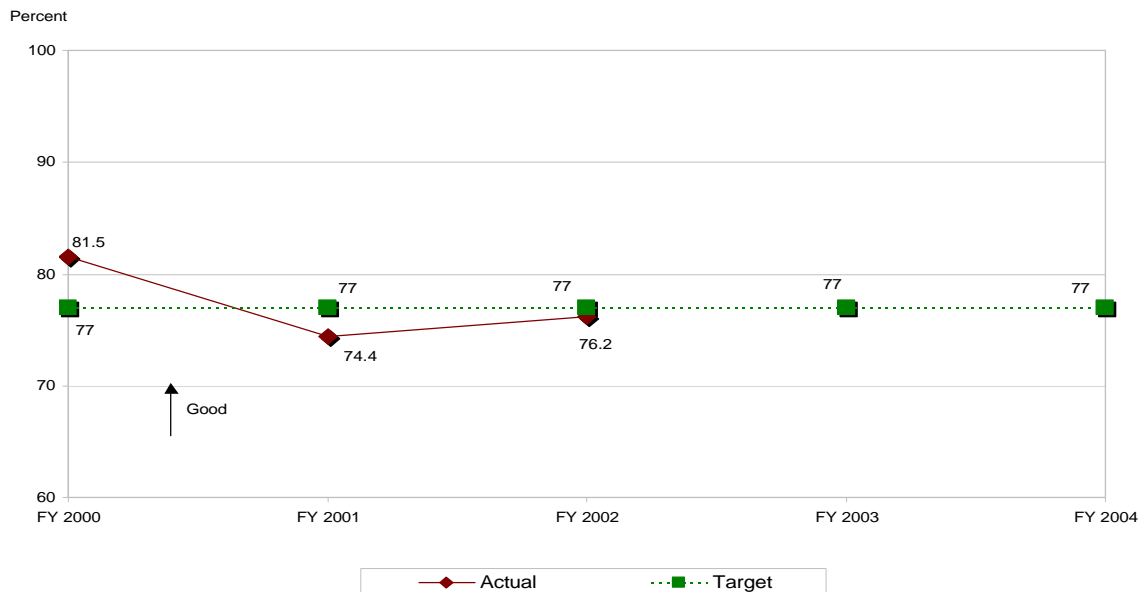
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.5: Optimize the value of hydro generation subject to flood control, navigation, water quality, and summer reservoir-level constraints.

Description

Valley residents expect TVA to operate the Tennessee River system of reservoirs for multiple benefits, including flood control, navigation, water quality, recreation, water supply, and hydroelectric generation. To satisfy these requirements, TVA monitors a performance goal that tracks the ability to maximize the flexibility and value of hydropower generation after meeting higher priority objectives. This “discretionary zone” is a region of operation bounded by the flood guide on the top and the minimum operating guide (MOG) on the bottom. Under TVA’s river system operation methodology, power value is optimized by operating tributary storage reservoir levels within the discretionary operating zone whenever possible.

Discretionary Zone Achievement



Target

FY 2004 Target: 77 percent

Target Explanation: While performance on this measure is strongly affected by rainfall patterns, TVA projected a 5% gradual increase in performance based on planned improvements in computer models and operating procedure. The original target, beginning in 1995, was 72%.

Measurement and Validation: The performance measure is defined as the percent of project days actual reservoir storage is within the discretionary operating zone. Projects included in this measure are the 10 tributary storage projects with MOG curves. TVA measures reservoir levels at midnight each day for each of the 10 storage projects. In a 30-day month, each storage project has a maximum of 30 project days when actual reservoir storage can be within the discretionary operating zone. TVA sums the days when storage was within the zone and divides by the total number of project days. For example, if all 10 projects had reservoir levels within the discretionary operating zone for 25 of the 30 days, monthly performance would be $250/300=83.3\%$. Data are reported monthly and are accumulated over the entire year to determine the annual performance on this measure.

Environmental Value Indicator

Completed Comprehensive Reservoir Land Plans

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

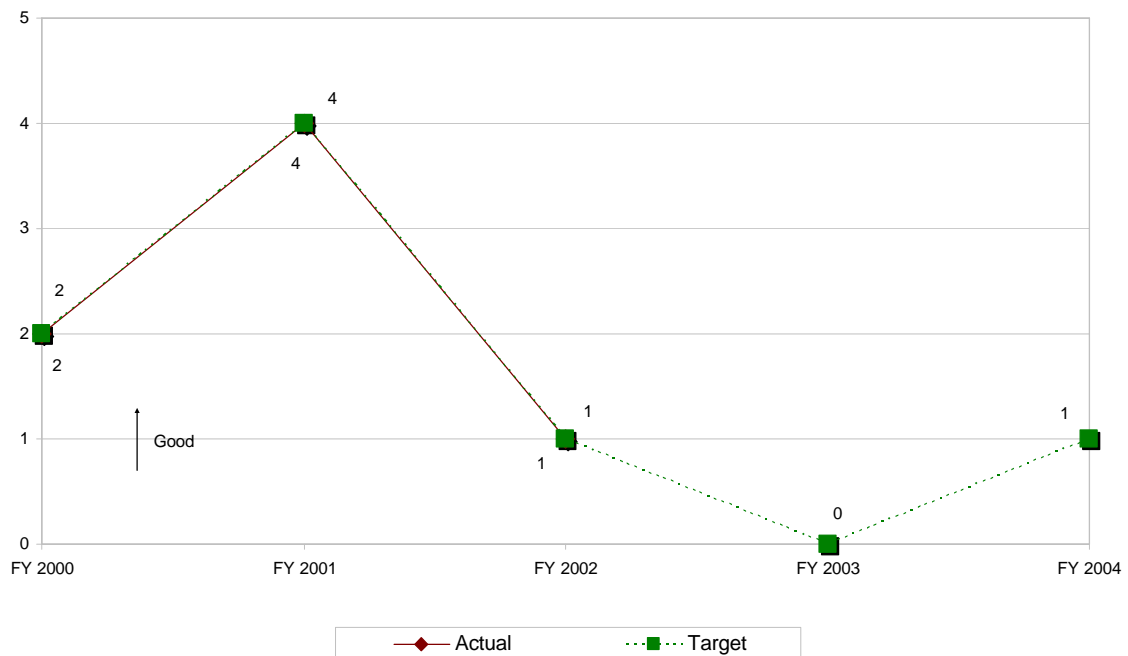
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.6: Support recreational uses of the river system and associated federal lands.

Description

TVA manages 293,000 acres of public land around reservoir projects spanning seven states. The reservoir system is a nationally important recreation and tourism resource that attracts millions of visits per year from residents and tourists who enjoy water-based sports and contribute to a \$1 billion industry. Waterfront properties are highly valued and generate demands for growth that often conflict with the protection of public resources and wildlife habitat. TVA manages these potential conflicts with the use of land management plans that establish allowable uses for TVA property. TVA will develop comprehensive plans for 27 reservoirs.

Completed Comprehensive Reservoir Land Plans



Target

FY 2004 Target: 1

Target Explanation: TVA will complete 1 comprehensive reservoir land plan in FY 2004.

Measurement and Validation: TVA will report each reservoir land plan completed when it is published and made available to the public.

Environmental Value Indicator

Summer Reservoir Level Attainment

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

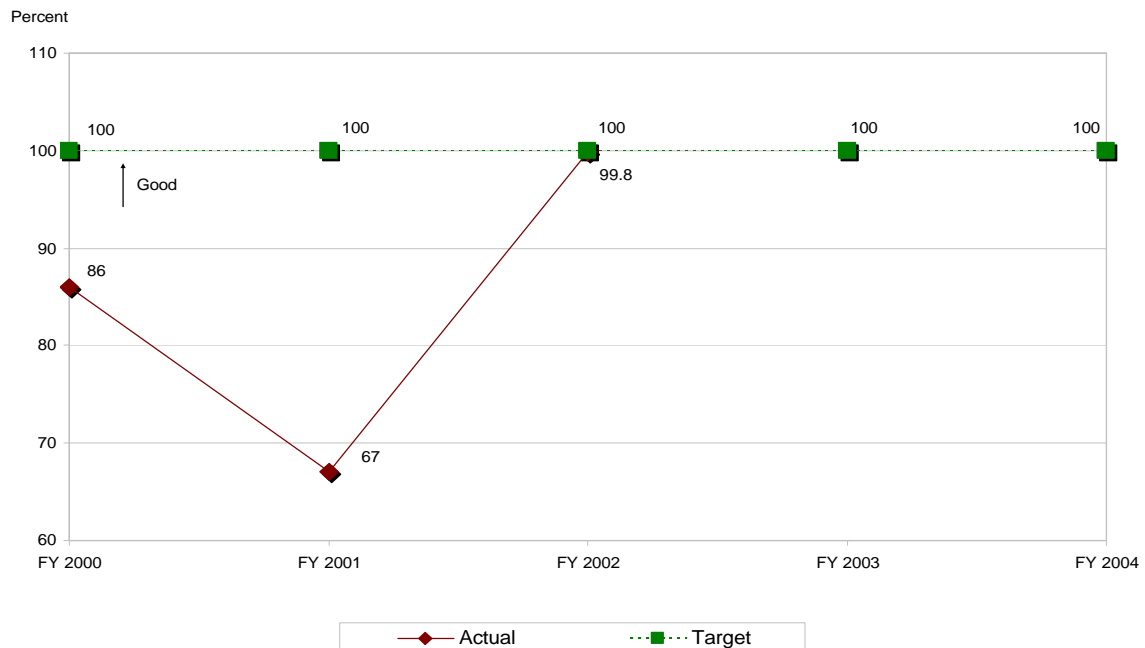
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system.

Critical Success Factor 2.A.6: Support recreational uses of the river system and associated federal lands.

Description

Recreational reservoir users want TVA to maintain high water levels during the summer. These customers provide regional economic benefits through increased expenditures for recreational activities. In its 1991 Lake Improvement Plan, TVA made commitments to the user public to maintain tributary reservoirs at specified levels during June and July to support recreational uses which have significant economic impacts for the Tennessee Valley. TVA measures its commitment to these customers by monitoring achievement of targeted minimum water levels during June and July in ten tributary storage reservoirs.

Summer Reservoir Level Attainment



Target

FY 2004 Target: 100 percent

Target Explanation: This performance goal measures achievements in meeting commitments made in the Lake Improvement Plan and shows an aggressive target.

Measurement and Validation: Reservoir levels for 10 tributary storage projects are measured at midnight from June 1 to July 31 and checked against August 1 levels specified in the Lake Improvement Plan. There is the potential of maintaining summer reservoir levels for 61 days at each of the 10 reservoirs (610 days total) per the Lake Improvement Plan. If one reservoir's level missed its target for 10 of the 61 days, the indicator calculation would be $600/610=98.4\%$.

Societal Value Indicator

Capital Investment Leveraged

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Stimulate economic growth.

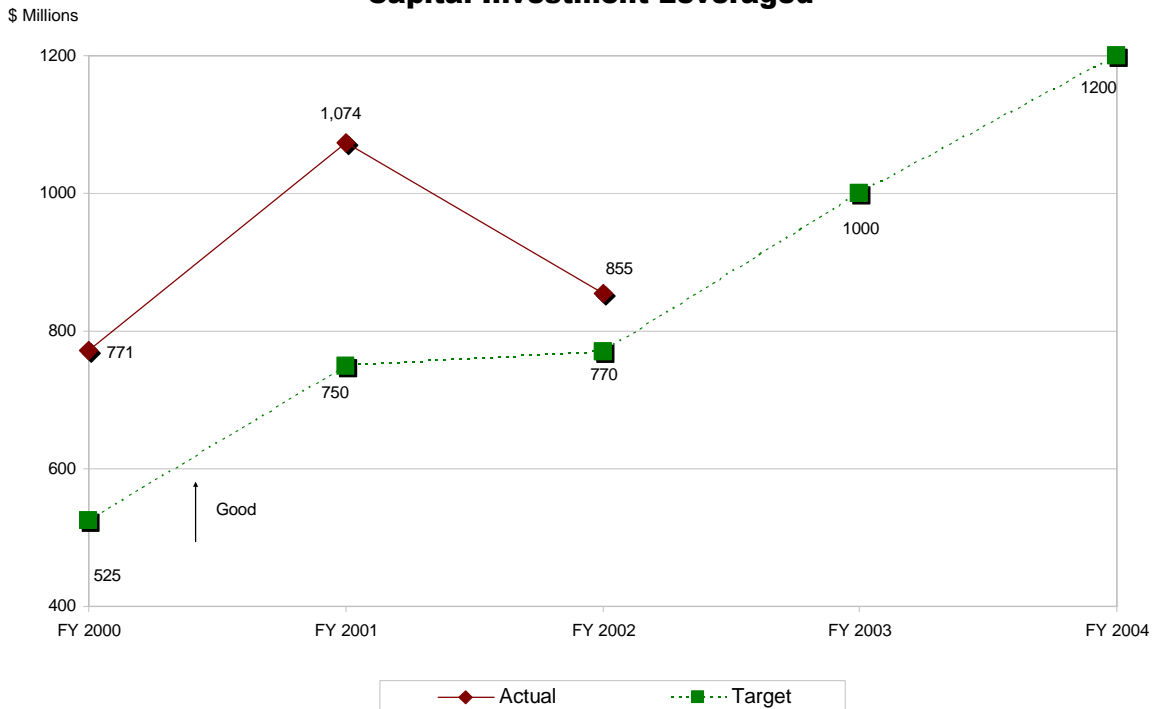
Strategic Objective 3.A: Demonstrate leadership in supporting sustainable economic development throughout the Tennessee Valley.

Critical Success Factor 3.A.1: Promote development through targeted, growth initiatives.

Description

Since 1933, TVA has played a significant role in economic and community development of the Tennessee Valley. Energy customers are interested in the economic development and vitality of their communities resulting from TVA's Economic Development projects, which focus on expanding and attracting industrial and commercial development with low-cost, reliable electric power. In this performance goal, TVA is measuring the capital investment by key public and private partners of projects in which TVA participates. The capital investment supports the generation of commerce in the distributor customer's market areas.

Capital Investment Leveraged



Target

FY 2004 Target: \$1.2 billion

Target Explanation: Targets based on expected leverage ratios for projects meeting TVA participation criteria.

Measurement and Validation: Data are reported based on agreements reached and commitments made to establish or expand industrial capacity in the Tennessee Valley.

Societal Value Indicator

Jobs Added or Retained

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Stimulate economic growth.

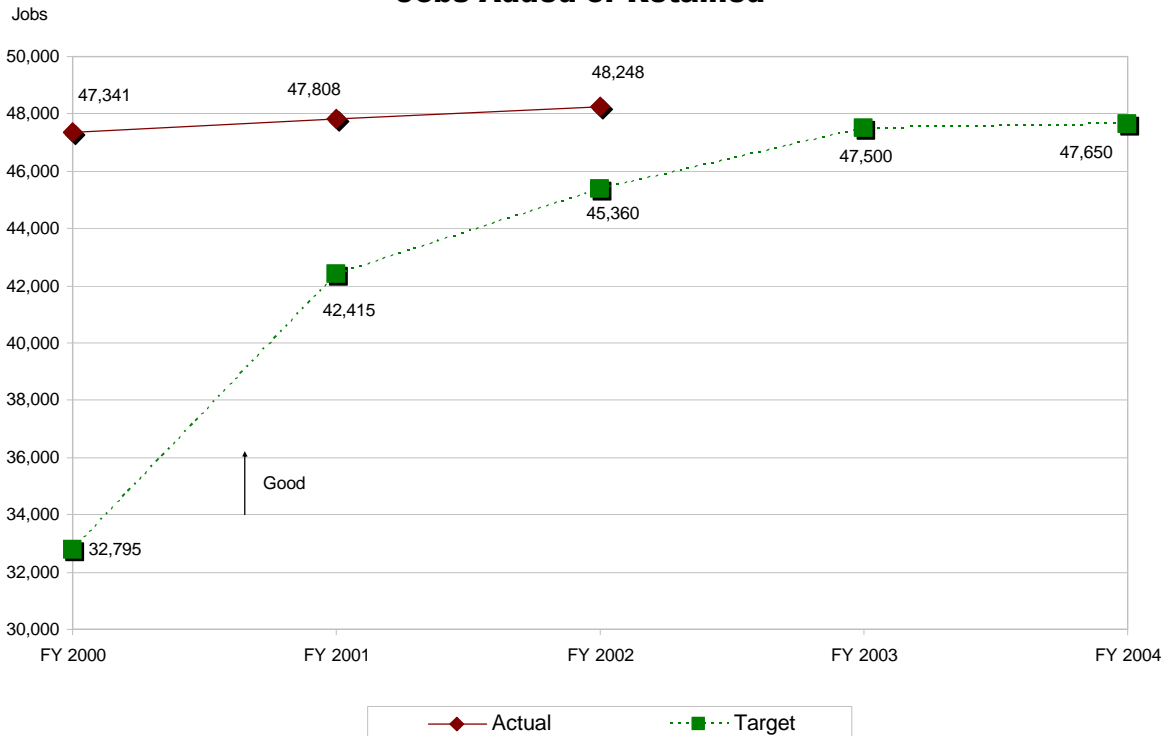
Strategic Objective 3.A: Demonstrate leadership in supporting sustainable economic development throughout the Tennessee Valley.

Critical Success Factor 3.A.1: Promote development through targeted, growth initiatives.

Description

Business investment commitments precede growth in employment opportunities. TVA energy customers are interested in TVA's contribution to the economic development and vitality of their communities as it relates to hiring and jobs created. This performance goal measures the number of jobs added or retained by firms that receive technical or financial assistance from TVA, as well as jobs added or retained with Regional Industrial Development Association (RIDA) assistance, in recognition of TVA's reimbursement to distributors of 50% of their support to RIDAs. (Note: the title of this indicator was changed from "Jobs Created" to more accurately represent the focus of TVA's Economic Development efforts in this area.)

Jobs Added or Retained



Target

FY 2004 Target: 47,650 jobs added or retained

Target Explanation: TVA has set the target as the optimum level of performance given the economic growth projections for the Tennessee Valley.

Measurement and Validation: Data are reported based on announcements of new jobs created/retained by firms that receive technical or financial assistance from TVA, as well as jobs created/retained with Regional Industrial Development Association (RIDA) assistance (Note: Previously this indicator included only one half of the jobs created/retained through RIDAs. The indicator was modified to reflect the increased focus TVA is placing on its business relationships with the RIDAs. Actuals and targets have been restated to include 100% of RIDA jobs created/retained).

Societal Value Indicator

Customer Satisfaction

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Stimulate economic growth.

Strategic Objective 3.B: Strengthen working relationship with all of TVA's stakeholders.

Critical Success Factor 3.B.1: Achieve excellence in the customer value and relationship process.

Description

TVA's customers have provided consistent feedback on the importance they place on ease of conducting business with TVA and on the importance of quickly responding to their issues. Measuring these areas provides a basis for continuous improvement of each area and ultimately the relationships with the customers. Consistent with the American Customer Satisfaction Index, a basic tenet of the measure is that satisfied customers represent a real, albeit intangible, economic asset to an organization.

Customer Satisfaction



Target

FY 2004 Target: 81.0

Target Explanation: FY02 was the first year for tracking this indicator. Performance targets for FY03 have been set based after reviewing industry customer satisfaction data and gaining recommendations from consultant expertise in target setting for satisfaction scores.

Measurement and Validation: Customer Satisfaction is a quarterly measure of customer's perceptions of TVA's performance in creating value for power distributor and directly-served customers in the areas of account management, billing, transmission, and contracts (Ease of Doing Business) and customer issue resolution (Issue Resolution). Ease of Doing Business is measured via quarterly surveys of power distributor and directly-served customers. Targets for percent satisfied scores are based on baseline data and comparative industry best-in-class performance. Issue Resolution measures (quarterly), customers' perceptions of how well TVA performed in resolving customer issues. Targets for percent satisfied scores are based on baseline data and comparative industry best-in-class performance. Ease of Doing Business and Issue resolution scores are weighted based on revenue contribution (80% distributor, 20% directly-served).

Societal Value Indicator

Stakeholder Process Satisfaction Index

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Stimulate economic growth.

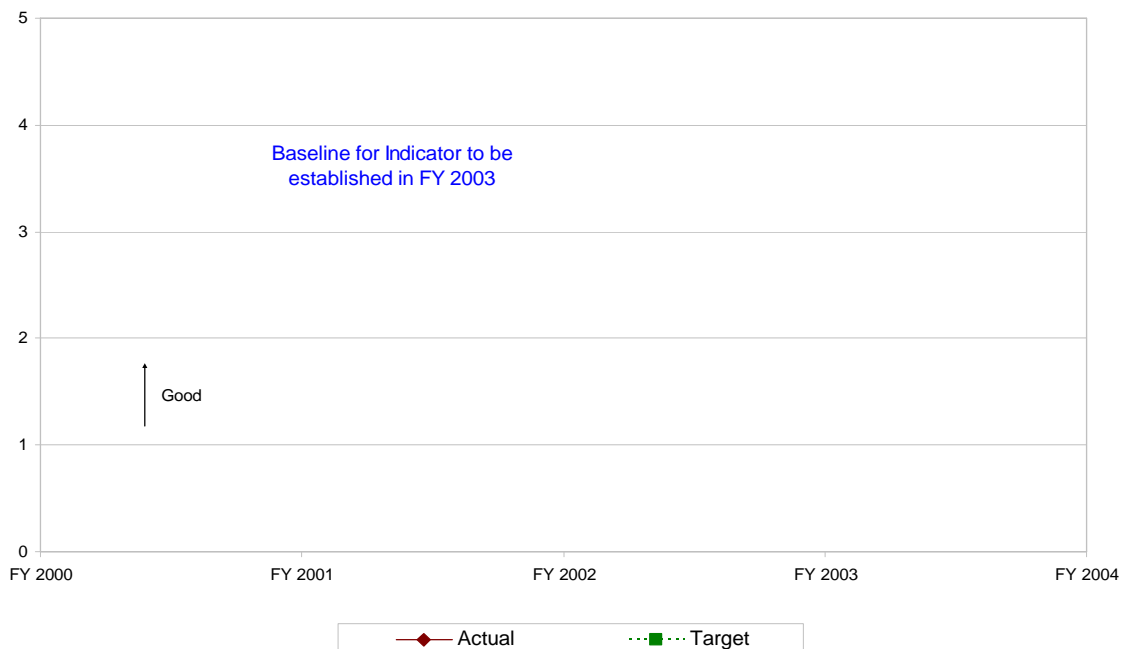
Strategic Objective 3.B: Strengthen working relationship with all of TVA's stakeholders.

Critical Success Factor 3.B.2: Achieve excellence in stakeholder relations and communications.

Description

As a federal agency and a public power provider, TVA is responsible to its stakeholders. Through positive relations and communications with stakeholders, TVA can more effectively anticipate issues, maintain consistency in its internal and external communications, facilitate better stakeholder understanding of the issues, and be proactive rather than reactive on emerging issues.

Stakeholder Process Satisfaction Index



Target

FY 2004 Target: This is a new measure. A baseline will be established in FY 2003 and the FY 2004 target will be set prior to the start of FY 2004.

Target Explanation: TVA will implement a new process for Stakeholder Relations in FY 2003 and will develop and pilot an accompanying effort to measure and track performance in that area. A baseline measure for Stakeholder Relations will be established in FY 2003 and performance measured against that baseline in subsequent years.

Measurement and Validation: Data will be reported based on results of a survey of key internal and external stakeholders. The survey will be designed to assess effectiveness of and user satisfaction with processes supporting Stakeholder Relations.