

Tennessee Valley Authority

Government Performance and Results Act

**Annual Performance Plan
FY 2003**

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 the Tennessee Valley Authority's (TVA) Performance Plan for FY 2003. Information is 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 covering the period 2000-2005.

TVA is a government agency that must make the right decisions to compete as a business in a vigorous marketplace. At the same time, TVA exists to serve the public good and must assume the responsibility to help deliver economic, environmental and societal value to our customers, our stakeholders and the people living and working in our region.

TVA is proceeding on the course charted by our Vision, Goals, Strategic Objectives and Critical Success Factors, approved and implemented in 1999. However, TVA is re-evaluating the way we report our corporate performance in response to attention and interest from our customers, stakeholders, and communities, and in keeping with new reporting formats and practices evolving within companies. This GPRA document is presented utilizing the Triple Bottom Line concept which assesses economic, environmental, and societal performance to provide a balanced view of performance targets among our economic, environmental and societal bottom lines.

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

Mission Statement

The mission of the Tennessee Valley Authority is to develop and operate the Tennessee River system to improve navigation, minimize flood damage, and to provide energy and related products and services safely, reliably, and at the lowest feasible cost to residents and businesses in the multi-state Tennessee Valley region. TVA's integrated management of the entire Tennessee River watershed optimizes the benefits of the water resource. Major functions of the corporation include:

- Management of the Tennessee River system for multiple purposes including navigation, flood control, power generation, water quality, public lands conservation, recreation, and economic development;
- Generation of electricity;
- Sale and transmission of electricity to wholesale and large industrial customers;
- Stimulation of economic development activities that generate a higher quality of life for citizens of the Tennessee Valley;
- Preservation and environmentally-sensitive management of TVA assets and federal lands entrusted to TVA; and
- Research and technology development that addresses environmental problems related to TVA's statutory responsibilities for river and land management and power generation.

TVA's Vision

In January 1999, the TVA Board of Directors issued their statement of the vision for TVA.

Vision:

Generating Prosperity in the Valley

Strategic Objectives:

- Meet our customers' needs by providing affordable, reliable electric power;
- Reduce our delivered cost of power relative to the market;
- Continue the trend of debt reduction;
- Enhance the quality of life in the Tennessee Valley through environmental stewardship and the integrated management of the Tennessee River system;
- Support sustainable economic development in the Tennessee Valley; and
- Strengthen our working relationships – with Valley residents, communities and businesses; and with our customers, suppliers and government officials and representatives.

Value Statement and Triple-Bottom Line

Achieve Excellence in Business Performance and Public Service.

As the electric utility industry navigates its way through myriad stages of restructuring, TVA must differentiate itself from other utilities in order to retain its leadership role in the new market environment. TVA has long held a unique position within the utility industry as a low-cost power generator, and an integrated river-management entity. However, as the competitive environment changes around TVA, so must TVA. TVA's challenges include not only maintaining its high level of operational excellence in power generation, transmission, and river management, but also in delivering value to each of three primary constituent groups: (1) customers; (2) stakeholders; and (3) society.

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 time of challenge by working with them to understand their energy needs and providing products to meet these requirements at as low a cost as feasible. TVA will provide additional value to its customers by providing stable prices for power. During this period of uncertainty in the economy and even more so in the evolving utility industry, any element of certainty is highly valued. TVA provides great certainty to its customers by maintaining stable power prices during a period of highly volatile energy markets. Finally and importantly TVA is helping to implement the Administration's energy policy, opening up the TVA region to competition in electricity markets.

The stakeholders of TVA, from federal, state and local governments to kayakers on the Ocoee River, are almost as numerous and varied as the species of fish in Valley rivers. TVA's challenge with respect to 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 for alternative energy sources. TVA must also balance the use of water resources for hydroelectric power generation, flood control, recreational lake and waterway use, navigation for Valley shippers, maintenance of safe water quality, as well as many others. 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 this stakeholder support if TVA's stakeholders understand the collective value delivered to them through its integrated system operations.

TVA provides value to society at large by continuing to fulfill its original mission of regional resource management, promoting economic growth, and leading the electric utility industry in operational excellence. In order to continue in this role as a public power agency, TVA must demonstrate its value to society and industry as a leader in energy technology, environmental protection, human resource equality and opportunity, and operational excellence. In carrying out this mission, TVA is taking a leadership role by making significant investments in clean air equipment for its coal burning facilities, developing and sharing breakthroughs in energy technology, maintaining high performance in operations and safety in its nuclear and fossil units, and by creating opportunities for economic growth. TVA will ultimately succeed if society understands the value of TVA's unique leadership role in the utility industry and accepts no other entity as the steward of its resources.

In order to effectively assess and improve TVA's performance with respect to these value statements, TVA has re-grouped the performance measures contained in previous performance reports into three primary categories: (1) Economic measures, (2) Environmental measures, and (3) Societal measures. This three-pronged approach can be viewed as a "Triple-Bottom Line" with each category emphasized equally. The triple bottom-line approach to performance measurement gives TVA the framework to monitor, assess and improve its performance in achieving its value statement of **achieving excellence in business performance and public service**.

Performance Indicators to Achieve Excellence in Business Performance and Public Service

Economic Value Indicators

Meet our customers' needs by providing affordable, reliable electric power. Reduce our delivered cost of power relative to the market. Continue the trend of debt reduction.

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 Goal: System Reliability (Load Not Served)

Relationship between the Vision, Strategic Objective, and Critical Success Factor

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 asset optimization and production processes.

- Performance Goals:
- Fossil Plant Equivalent Availability Factor
 - Hydro Plant Equivalent Availability Factor
 - Nuclear Plant Net Capacity Factor

Relationship between the Vision, Strategic Objective, and Critical Success Factor

Strong economic growth and the uncertainty caused by the expected transition to a restructured electric market have resulted in increased price volatility and shortages of capacity throughout much 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 acquiring new generation 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 Goal:
- Energy sales (kWh)
 - Wholesale Customers with Continuing Contracts

Relationship between the Vision, Strategic Objective, and Critical Success Factor

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 made up of 158 distributors and 62 direct 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 maintain its position as 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 large direct-served customers in the Valley when TVA's fence is removed and the agency is subject to competition.

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 Goals: Delivered Cost of Power

Relationship between the Vision, Strategic Objective, and Critical Success Factor

TVA will be the energy supplier of choice in a deregulated environment by selling electricity competitive with the market price.

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 Goals:

- Debt / KW Capacity
- Bond Rating

Relationship between the Vision, Strategic Objective, and Critical Success Factor

A major component (about 27 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 invest in existing facilities, as well as considering investments in new generation, 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. 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 Indicators

Improve the quality of life in the Tennessee Valley through environmental stewardship and the integrated management of the Tennessee River system.

Strategic Objective 2.A

Improve the quality of life in the Tennessee Valley through environmental stewardship and the integrated management of the Tennessee River system.

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

Performance Goals:

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

Relationship between the Vision, Strategic Objective and Critical Success Factor

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 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 Goal: Flood Storage Availability

Relationship between the Vision, Strategic Objective and Critical Success Factor

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 Goals:

- Days Navigable Waterway Is Available from Knoxville to Paducah
- Shipper Savings

Relationship between the Vision, Strategic Objective and Critical Success Factor

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 continued cooperation between TVA and the US Army Corps of Engineers (USACE), and that resources be available to maintain locks and related facilities. To maintain commercial navigation above Chattanooga, the concrete growth problem at the Chickamauga Dam Lock would need to be addressed 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 1940's will no longer be provided.

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

Performance Goal:

- Dissolved Oxygen Deficit Due to Forced Outages
- Minimum Flow Achievement
- Watershed Water Quality

Relationship between the Vision, Strategic Objective and Critical Success Factor

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 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/reservoir ecological health, and shoreline conditions.

Achievement of this objective requires 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 Goal: Discretionary Zone Attainment

Relationship between the Vision, Strategic Objective and Critical Success Factor

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 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.

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

Performance Goals:

- Completed Comprehensive Reservoir Land Plans
- Summer Reservoir Level Attainment

Relationship between the Vision, Strategic Objective and Critical Success Factor

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 Indicators

Support sustainable economic development in the Tennessee Valley. Strengthen our working relationships – with Valley residents, communities and businesses; and with our customers, suppliers and government officials and representatives.

Strategic Objective 3.A

Support sustainable economic development in the Tennessee Valley.

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

Performance Goals:

- Capital Investment Leveraged
- Jobs Created or Retained

Relationship between the Vision, Strategic Objective and Critical Success Factor

TVA's power revenue-financed economic development initiatives focus on expanding and attracting industrial and commercial development based on TVA's low-cost, reliable electric power and the quality of life in the Tennessee Valley. These performance goals measure TVA's effectiveness in attracting capital investment by key public and private partners and new jobs created by firms receiving assistance from TVA or Regional Industrial Development Associations.

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

Strategic Objective 3.B

Strengthen our working relationships – with Valley residents, communities and businesses; and with our customers, suppliers and government officials and representatives.

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

Performance Goal: Customer Value Index

Relationship between the Vision, Strategic Objective and Critical Success Factor

TVA's most recent customer research reveals that our customers expect providers to meet their individual needs. With the advent of industry restructuring and changing business drivers, customers are requiring customization. No longer does one size fit all.

TVA will be able to meet changing customer needs through targeting customer segments and providing products and services that meet the unique needs of those segments. This will require TVA to change from its "customer service" approach to one of managing processes to ensure "customer value".

TVA is in the process of developing new ways of measuring the value of our relationships with all of our customers. The initial measurement for this strategy will be a customer focus index designed to measure how effectively we are interacting with customers and meeting their needs through products and services that add value.

Achievement of this objective will require the development of new processes for determining and forecasting changing customer needs, creating targeted products and services to meet those needs, and delivering those products and services in ways that maintain and strengthen the long-standing relationships with these customers.

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

Performance Goal: Stakeholder Process Satisfaction Index

Relationship between the Vision, Strategic Objective and Critical Success Factor

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 elected officials and regulators, the financial community, environmental groups, river system interests, economic development leaders, community leaders, nuclear interests and regulators, and suppliers.

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. 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.

Relationship of TVA'S Goals, Strategic Objectives and Critical Success Factors to the Performance Goals

Performance goals are selected to support attainment of the Strategic Objectives and Critical Success Factors and are expressed as performance indicators and annual targets.

TVA's goals are:

- Supplying Low-cost Reliable Power
- Supporting a Thriving River System
- Stimulating Economic Growth

The following table summarizes information from the previous section and demonstrates the linkages between TVA's Vision, Strategic Objectives, Critical Success Factors, and Performance Goals / Measures.

Bottom line alignment to Critical Success Factors, Strategic Objectives, TVA Vision and 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 asset optimization and production processes.	<ul style="list-style-type: none"> • Fossil Plant Equivalent Availability Factor • Hydro Plant Equivalent Availability Factor • Nuclear Plant Net Capacity Factor
		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 the integrated management of the Tennessee River system.	2.A.1 Manage the environmental and safety impacts of TVA's operations on employees and the region.	<ul style="list-style-type: none"> • Reportable Environmental Events • Sulfur Dioxide Emissions • Nitrogen Oxide Emissions • INPO Index • 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
		<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
<p>Societal Value</p>	<p>3.A Support sustainable economic development in the Tennessee Valley.</p> <p>3.B Strengthen our working relationships – with Valley residents, communities and businesses; and with our customers, suppliers and government officials and representatives.</p>	<p>3.A.1 Promote development through targeted, sustainable growth initiatives.</p> <p>3.B.1 Achieve excellence in the customer value and relationship process.</p> <p>3.B.2 Achieve excellence in the stakeholder relations and communication processes.</p>	<ul style="list-style-type: none"> • Capital Investment Leveraged • Jobs Created or Retained • Customer Value Index • Stakeholder Process Satisfaction Index

GPRA Program Activity Structure

TVA's budget identifies two program activities: 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.

FY2003 TVA GPRA Program Structure

TVA Program & Financing Budget Category	Performance Measure
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 Value Index • 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 • Hydro Plant Equivalent Availability Factor • Nuclear Plant Net Capacity Factor • Capital Investment Leveraged • Jobs Added or Retained
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 FY2003 targets, and how performance will be measured and validated.

Economic Value Indicator

System Reliability - Load Not Served

Goal/Strategic Objective/Critical Success Factor

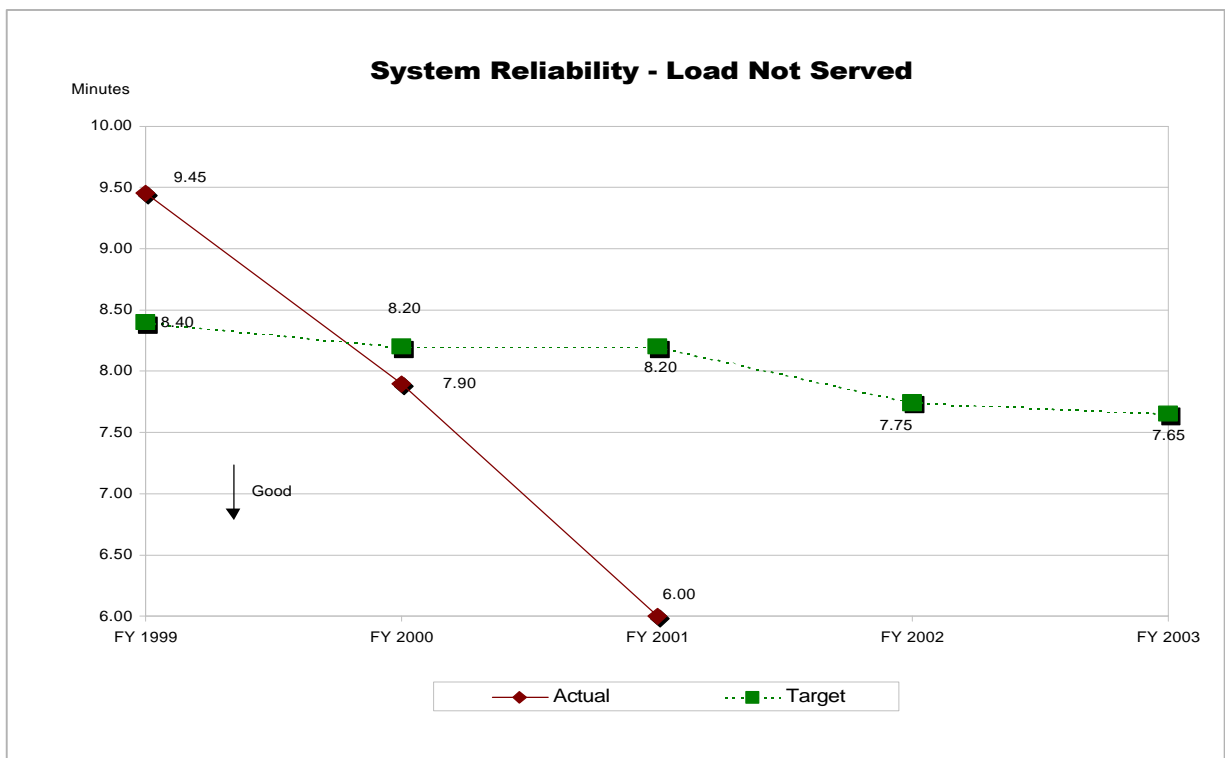
TVA Goal: Supply low cost reliable power.

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.



Target

FY 2003 Target: 7.85 minutes

Target Explanation: Fluctuations between ten minutes and eight minutes per year reflect the presence or absence of extremely 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 projects designed to reduce LNS and on aggressive maintenance efforts.

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:

$$\left(\frac{10}{10+600,000} \right) * 525,600 (\text{minutes in a year}) = 8.76 \text{ minutes of LNS.}$$
 The result is a normalized LNS in minutes that is calculated regardless of the load size.

Economic Value Indicator

Fossil (Coal-Fired) Plant Equivalent Availability Factor

Goal/Strategic Objective/Critical Success Factor

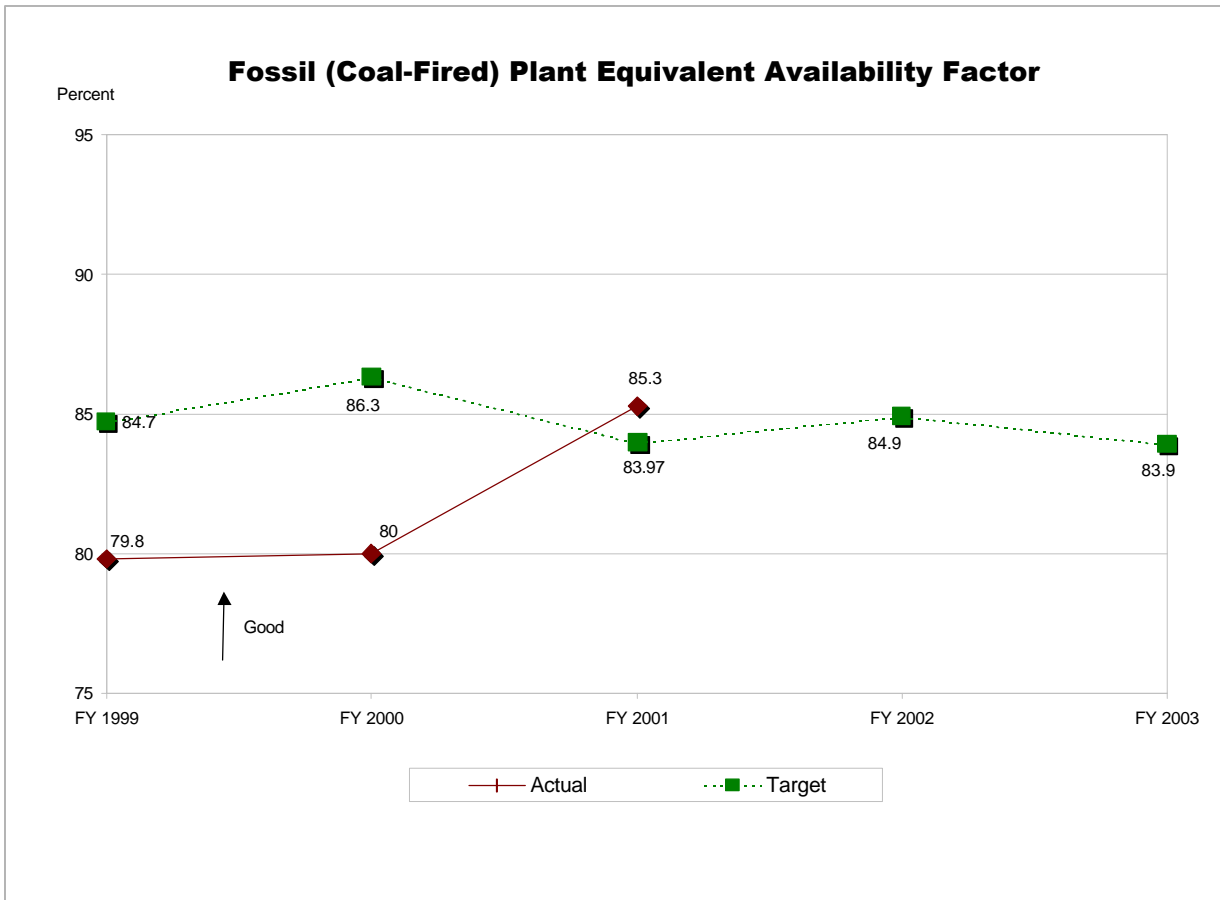
TVA Goal: Supply low cost reliable power.

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

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

Description

All energy customers require an adequate supply of electricity at lowest price in order to add value to their customers. To ensure that TVA can meet customer 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.



Target **FY 2003 Target: 83.9 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.

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). The availability of all units is combined to determine the annual fossil system equivalent availability factor.

Economic Value Indicator

Conventional Hydro Equivalent Availability Factor

Goal/Strategic Objective/Critical Success Factor

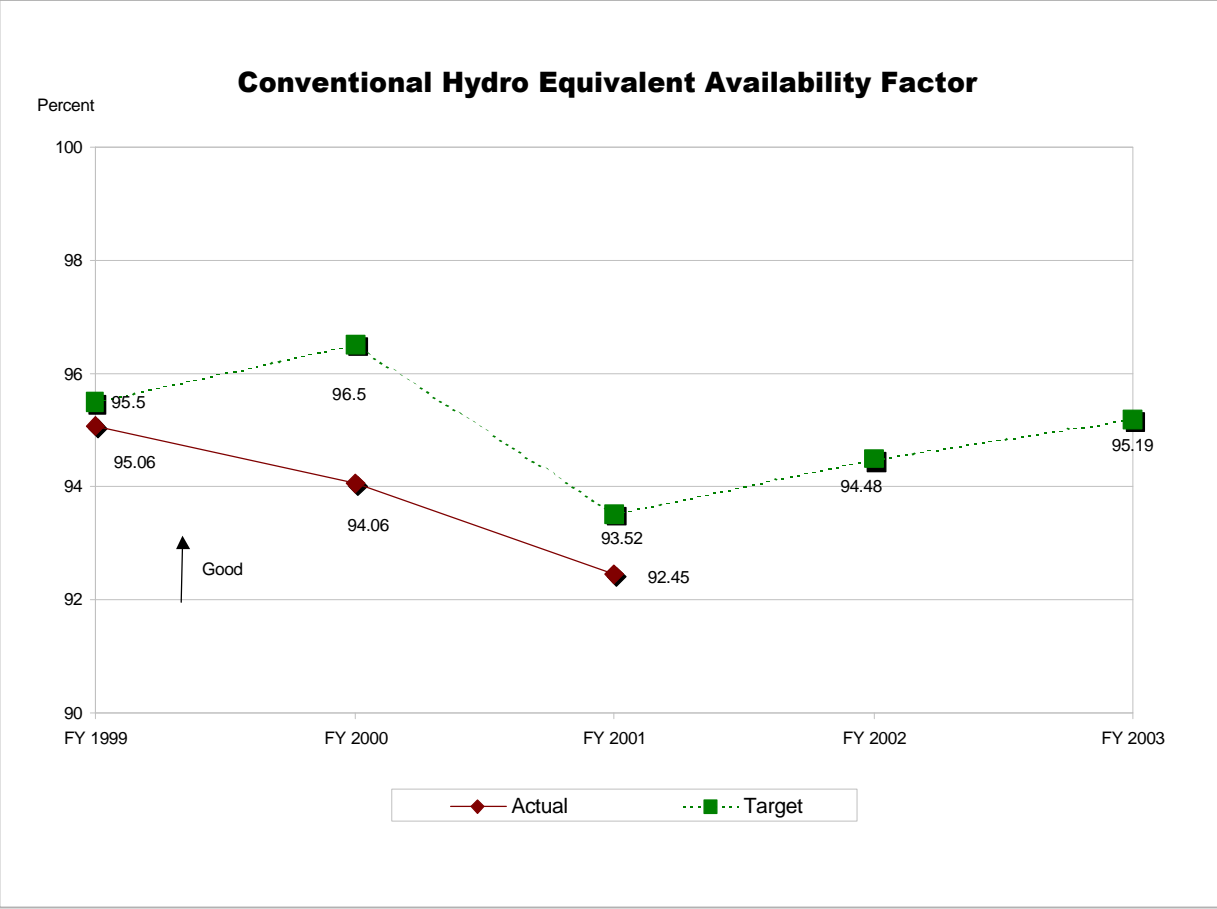
TVA Goal: Supply low cost reliable power.

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

Critical Success Factor 1.A.2: Achieve excellence in 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.



Target **FY 2003 Target: 95.19 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.

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.

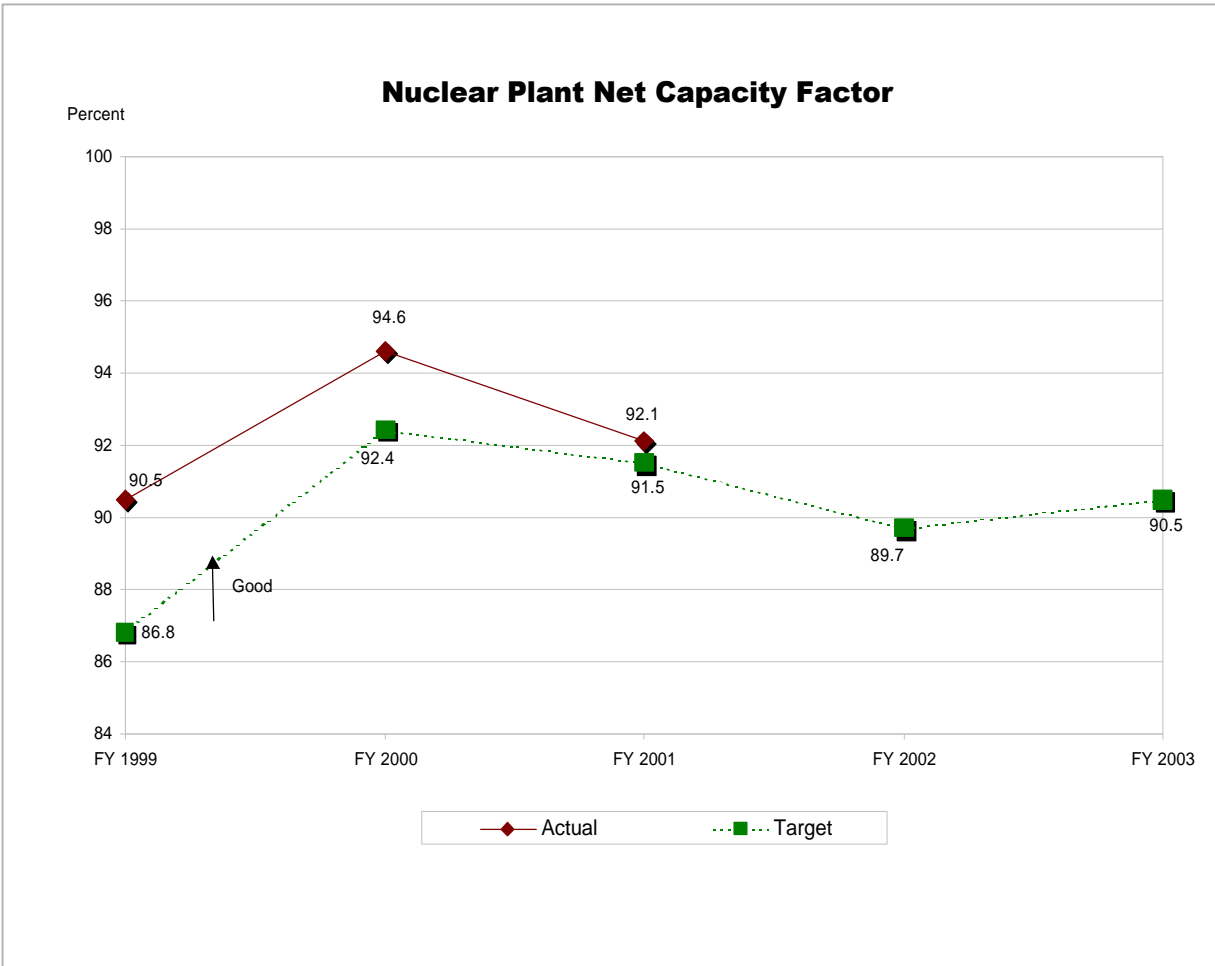
Economic Value Indicator
Nuclear Plant Net Capacity Factor

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 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.



Target **FY 2003 Target: 90.5 percent**

Target Explanation: TVA's nuclear plant net capacity factor shows steady improvement with fluctuations in yearly values caused by scheduling of refueling outages.

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.

Economic Value Indicator

Wholesale Customers with Continuing Contracts

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low cost reliable power.

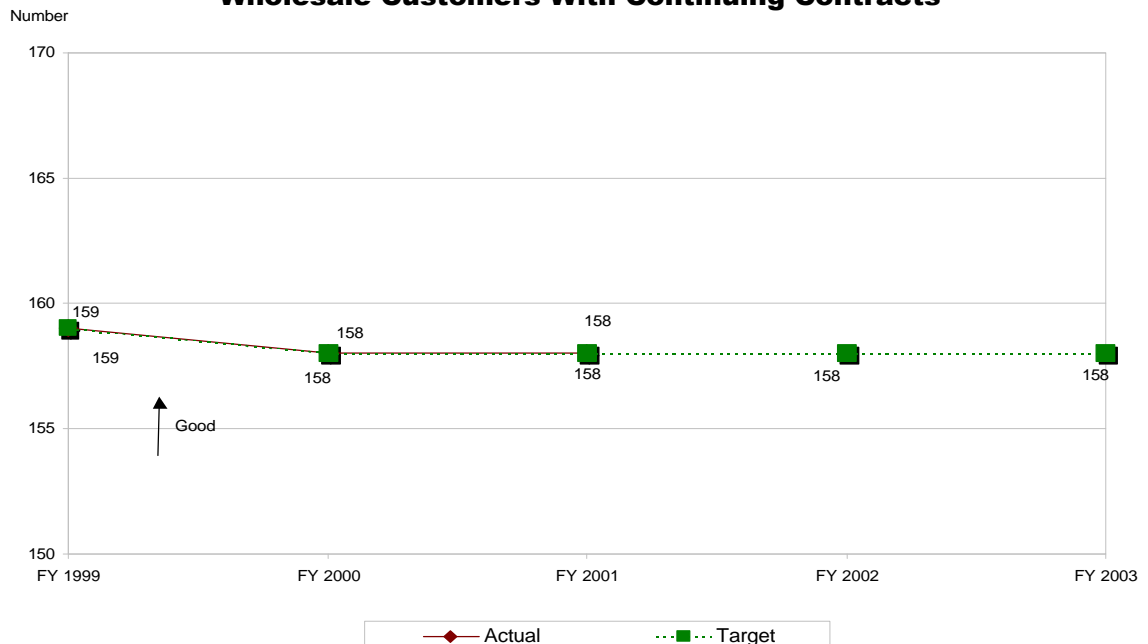
Strategic Objective 1.A: Meet our customers' needs by providing affordable, reliable electric power.

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 five, ten, or fifteen-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 2003 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 2002 and FY 2003 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

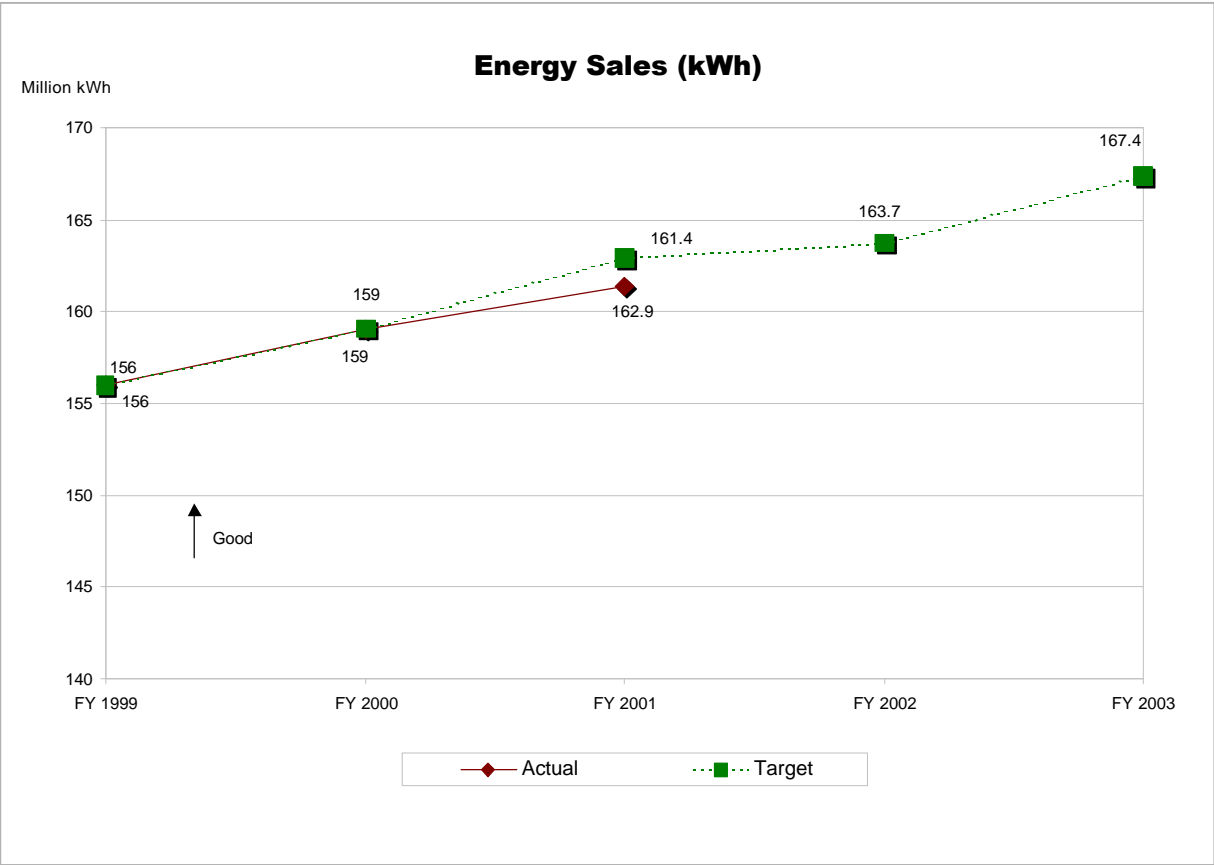
TVA Goal: Supply low cost reliable power.

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 is not only an indication of customer satisfaction with TVA's overall product offerings and quality of service, but provides a broader base over which to spread TVA's fixed costs and thereby reduce the average cost of power delivered



Target **FY 2003 Target: 167.4 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.

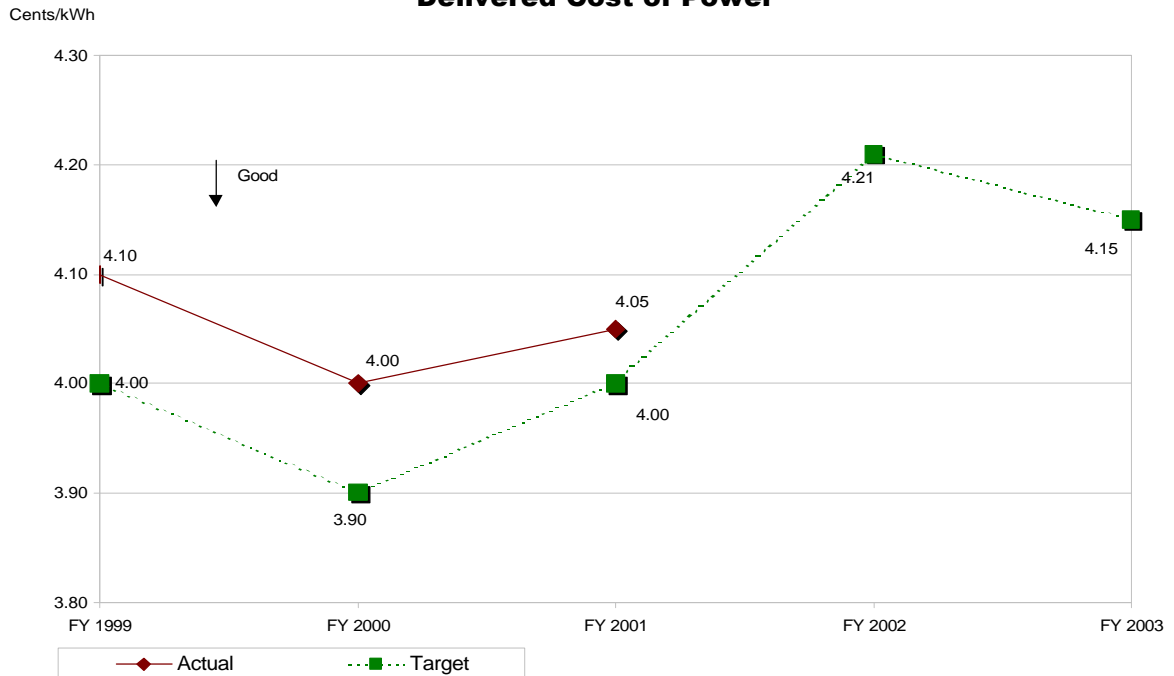
Strategic Objective 1.B: Reduce our delivered cost of power relative to the market.

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 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 2003 Target: 4.15 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 2003 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.

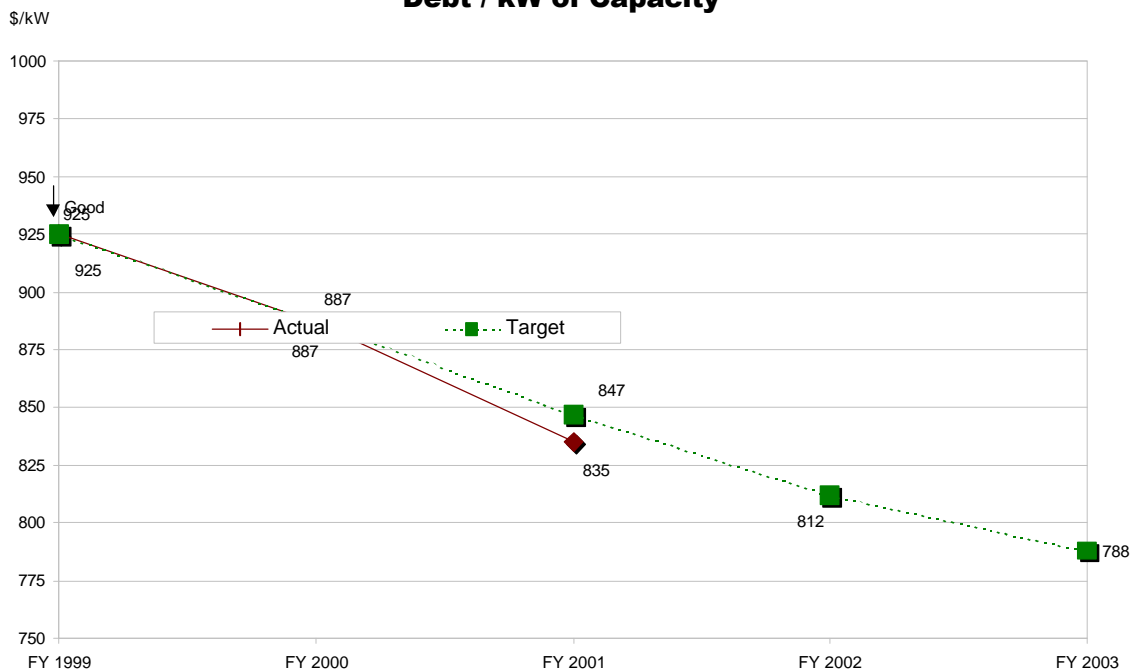
Strategic Objective 1.C: Continue the trend of debt reduction.

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 23% 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 finance the growth in 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 2003 Target: \$788/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.

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

While TVA has taken actions to cap its debt, there will still be a need to refinance maturing debt. This performance measure monitors TVA's success in maintaining its position as an attractive investment.



Target

FY 2003 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.

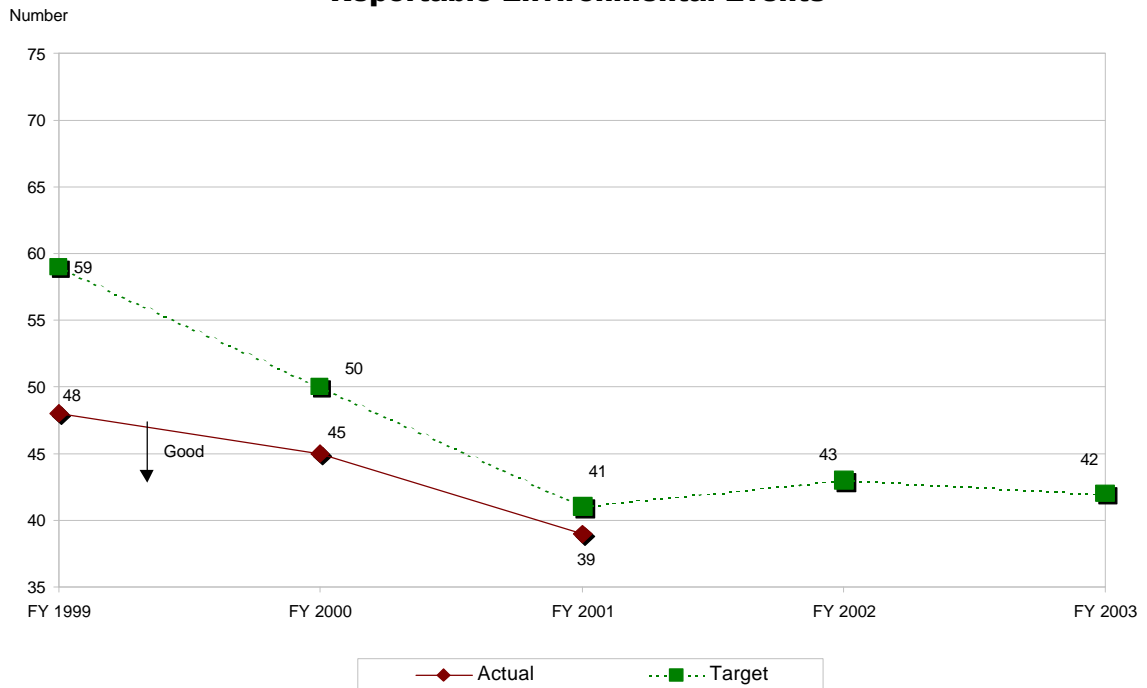
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and the integrated management of the Tennessee River system.

Critical Success Factor 2.A.1: Manage the environmental and safety impacts of TVA's operations 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 2003 Target: 42

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

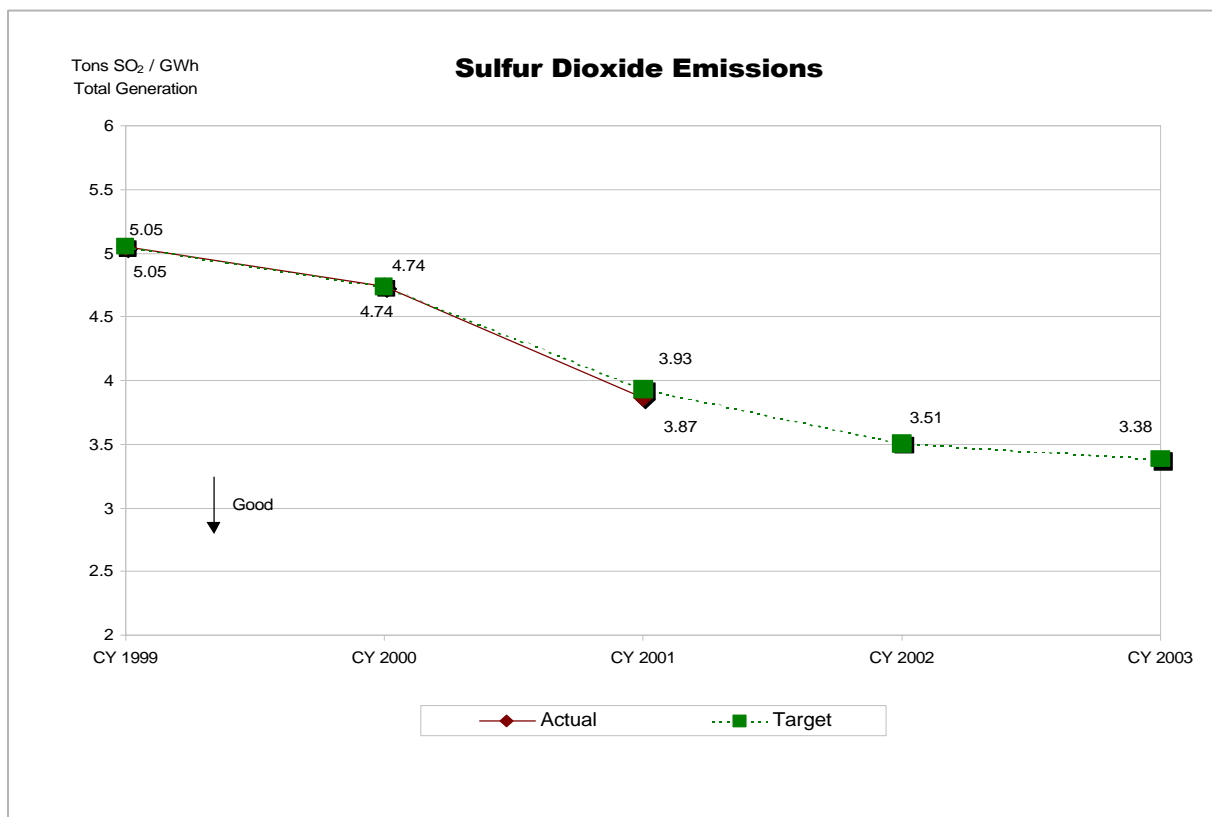
TVA Goal: Support a thriving river system.

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

Critical Success Factor 2.A.1: Manage the environmental and safety impacts of TVA's operations 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.



Target

CY 2003 Target: 3.38 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

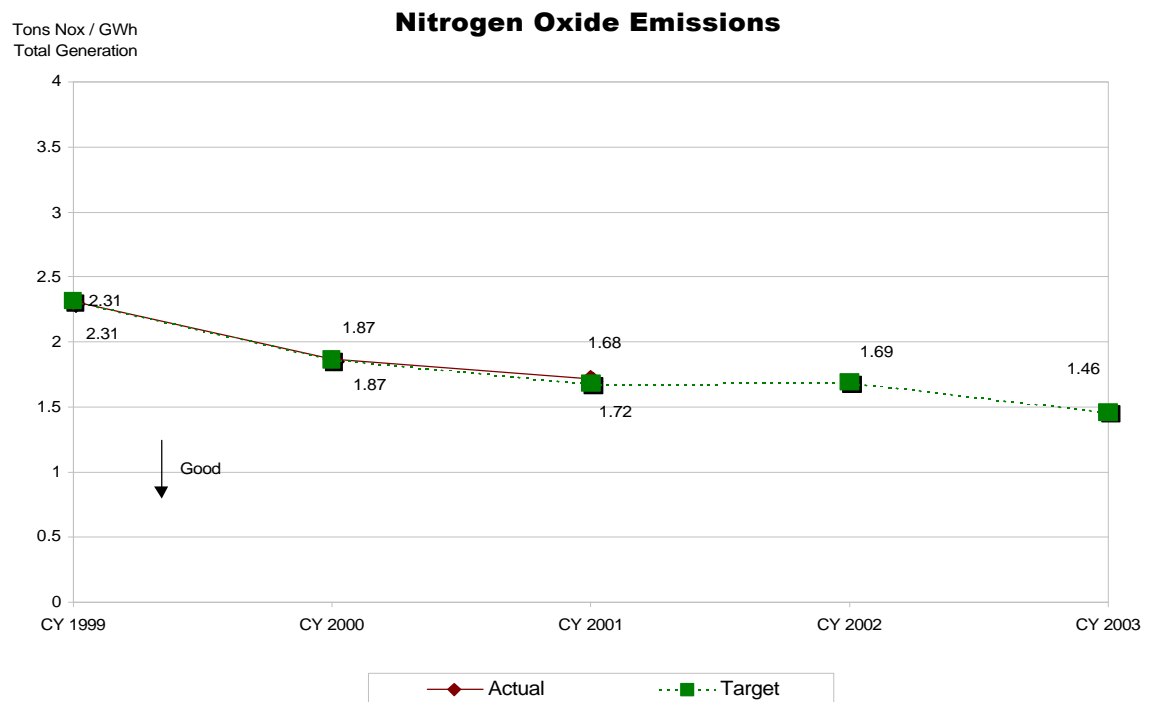
TVA Goal: Support a thriving river system.

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

Critical Success Factor 2.A.1: Manage the environmental and safety impacts of TVA's operations 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.



Target

CY 2003 Target: 1.46 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: NO_x 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 NO_x emitted are divided by total TVA system (calendar year) generation to determine the tons emitted per GWH of generation.

Environmental Value Indicator

INPO Index

Goal/Strategic Objective/Critical Success Factor

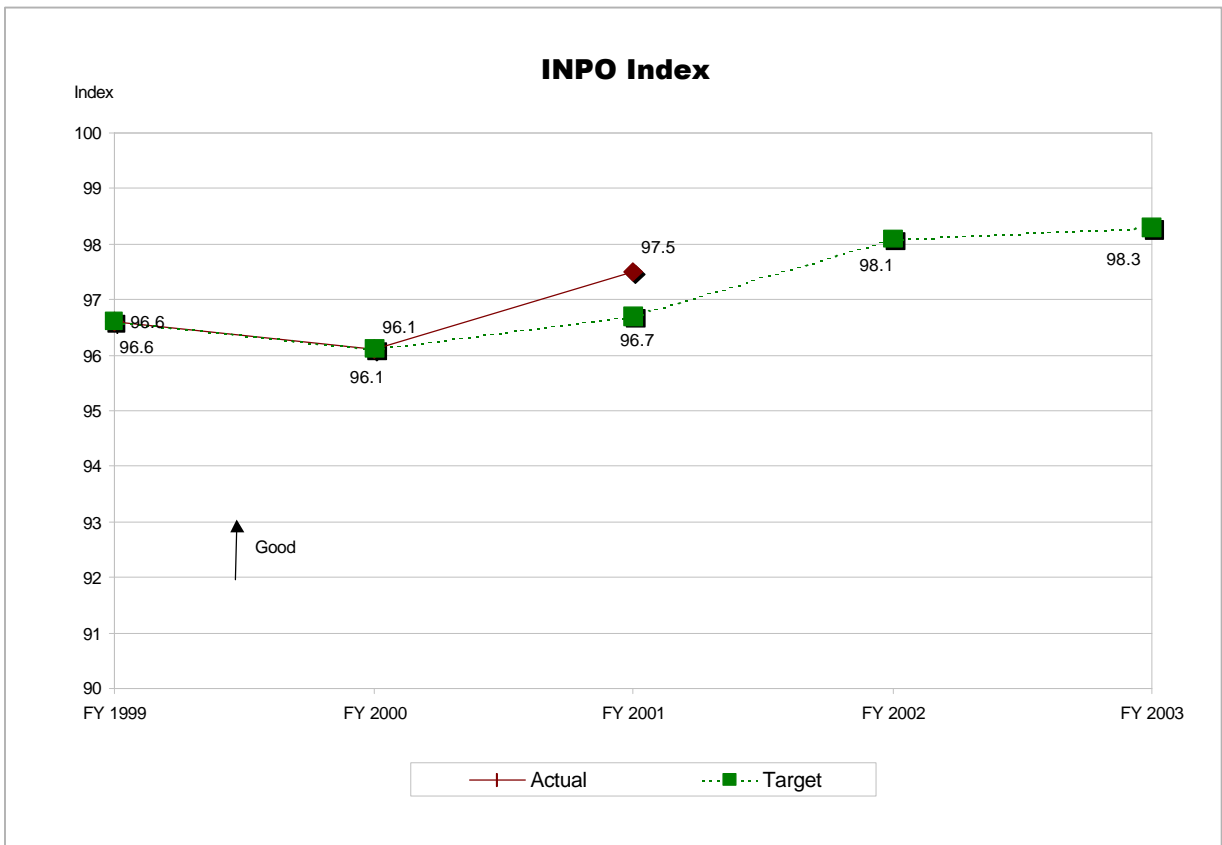
TVA Goal: Support a thriving river system.

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

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

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 2003 Target: 98.3

Target Explanation: TVA's nuclear plant INPO Index shows improvement trends with fluctuations from year to year as a result of scheduled refueling outages.

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. Each year's September calculation will be reported as the annual performance on this measure.

Environmental Value Indicator

Environmental Research Center RCRA Cleanup

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

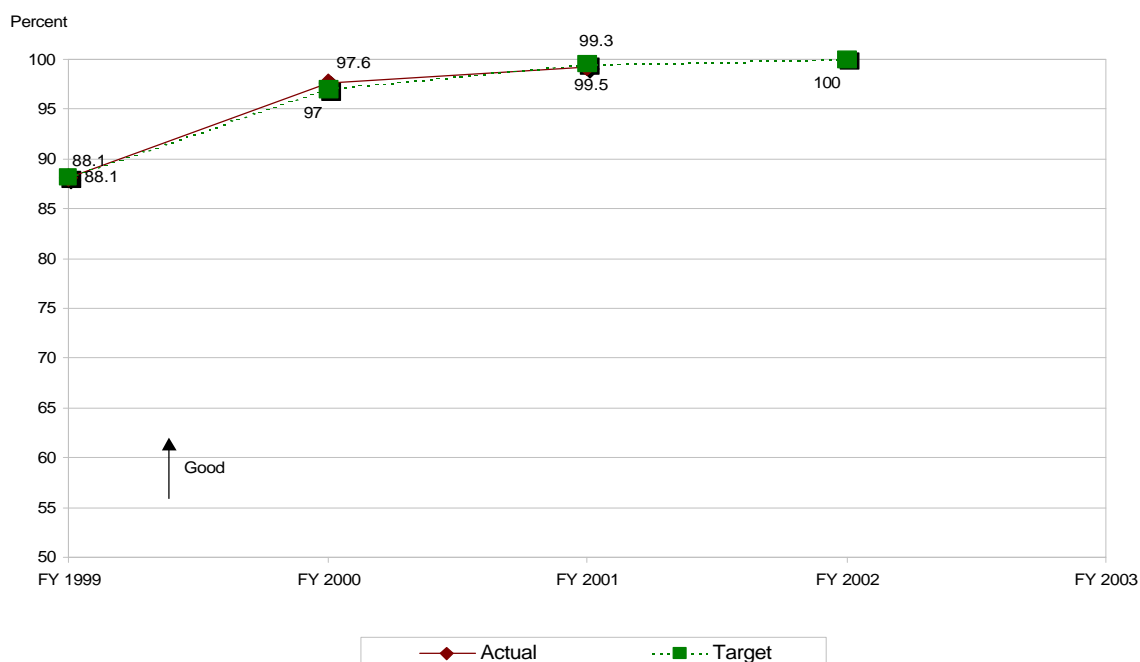
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and the integrated management of the Tennessee River system.

Critical Success Factor 2.A.1: Manage the environmental and safety impacts of TVA's operations 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 2003 Target: 100 percent complete

Target Explanation: Percent completion based on planned remediation activities. Assumes no change in regulator requirements. Cleanup is expected to be completed in FY 2002.

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

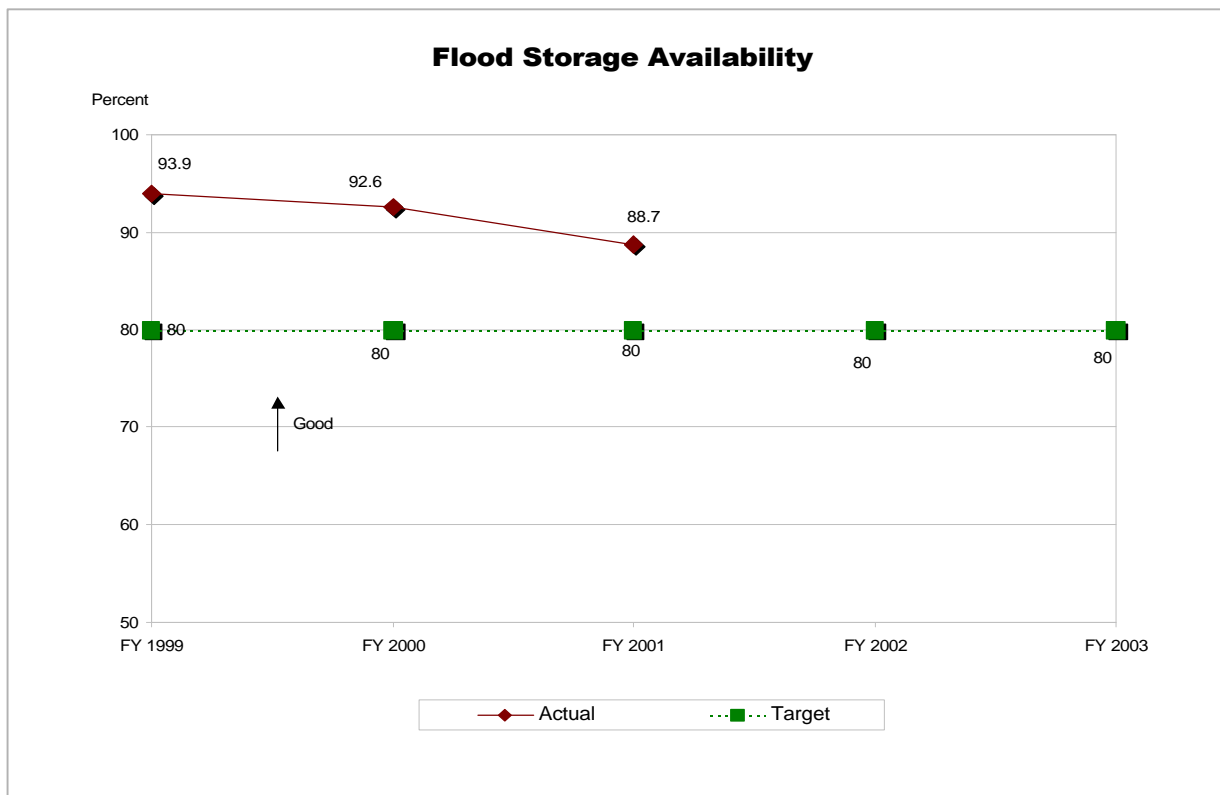
TVA Goal: Support a thriving river system.

Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and the 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.



Target

FY 2003 Target: 80%

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.

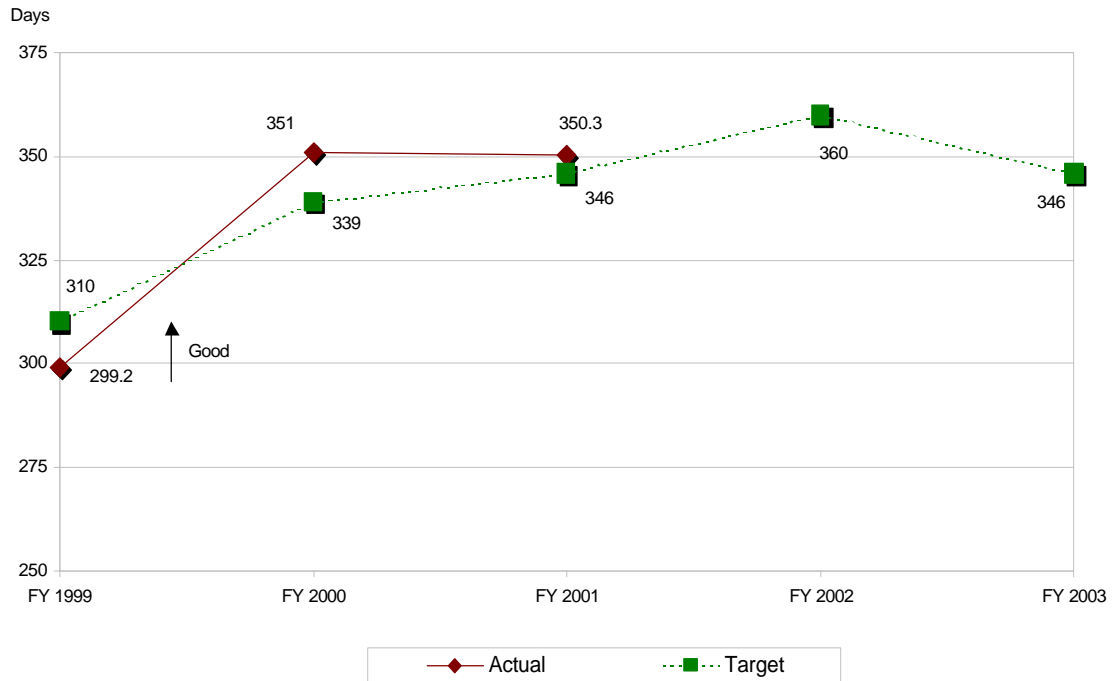
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and the integrated management of the Tennessee River system.

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.

Days Navigable Waterway is Available from Knoxville to Paducah



Target

FY 2003 Target: 346 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

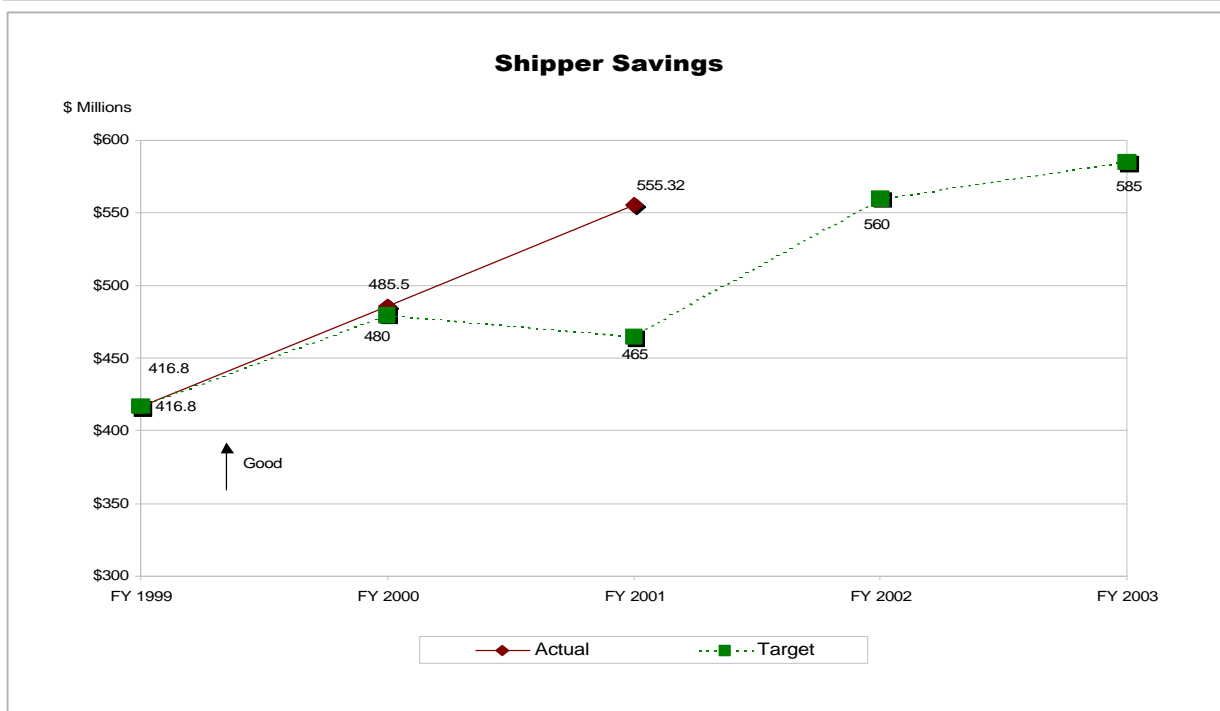
TVA Goal: Support a thriving river system.

Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and the 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.



Target

FY 2003 Target: \$585 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.

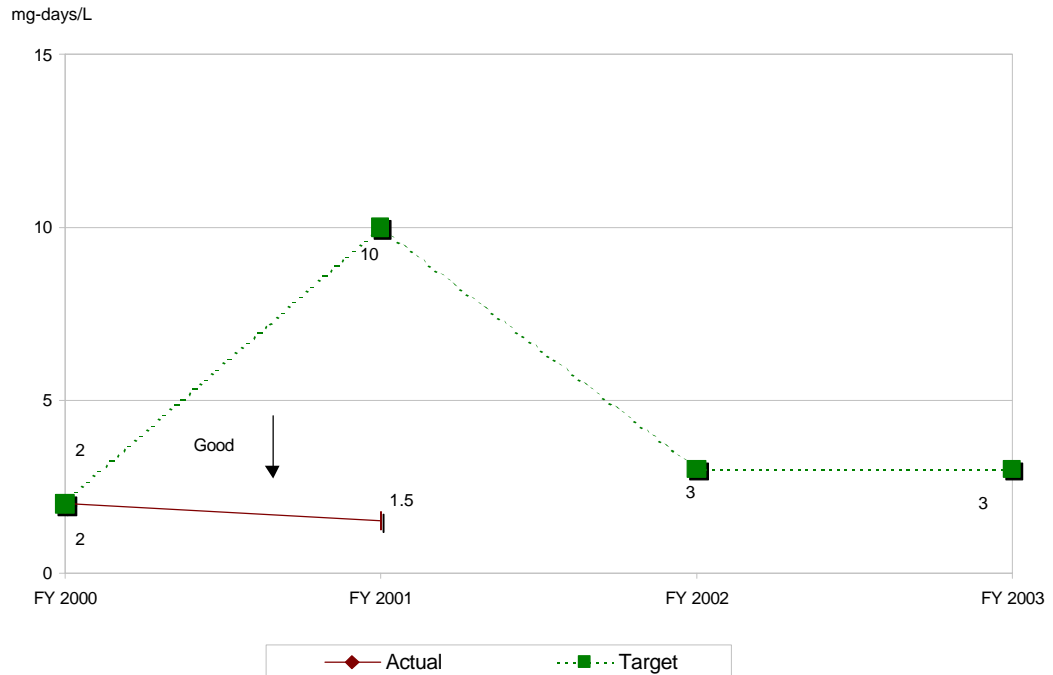
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and the integrated management of the Tennessee River system.

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

Description

Aeration systems will be operated at 15 dams 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 2003 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 the 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 2003 Target: 99%

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.

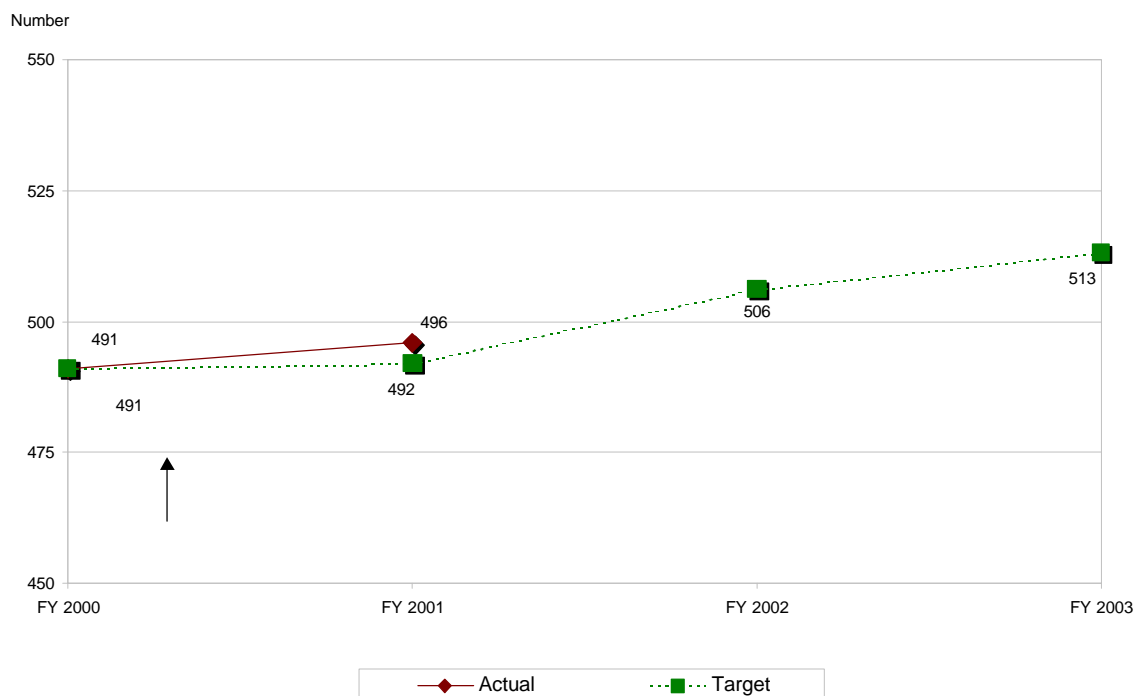
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and the integrated management of the Tennessee River system.

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 2003 Target: 513

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.

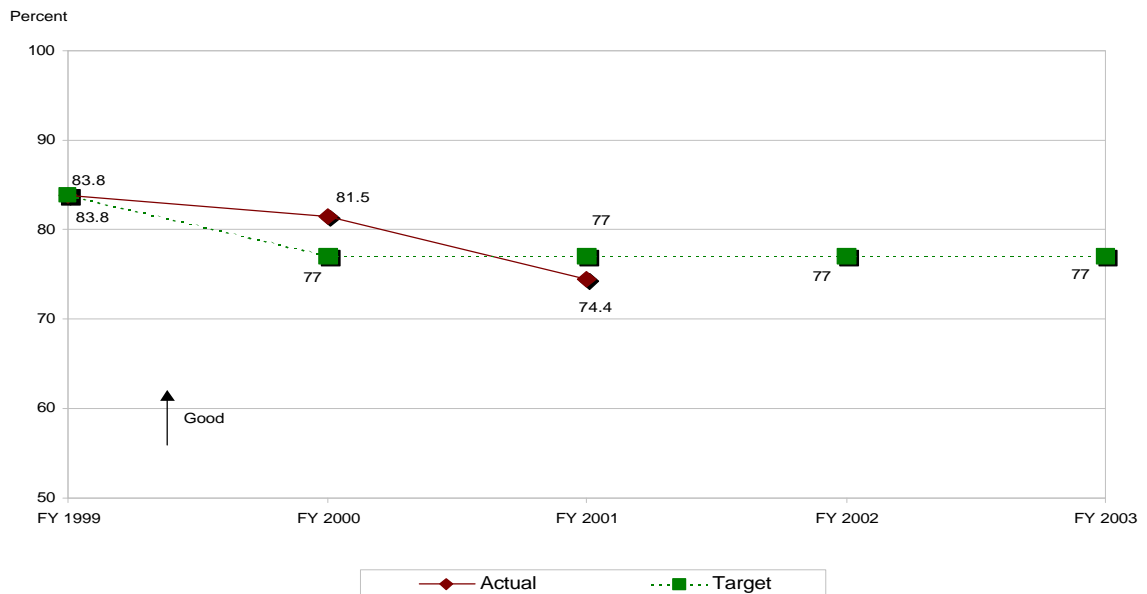
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and the integrated management of the Tennessee River system.

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 2003 Target: 77%

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.

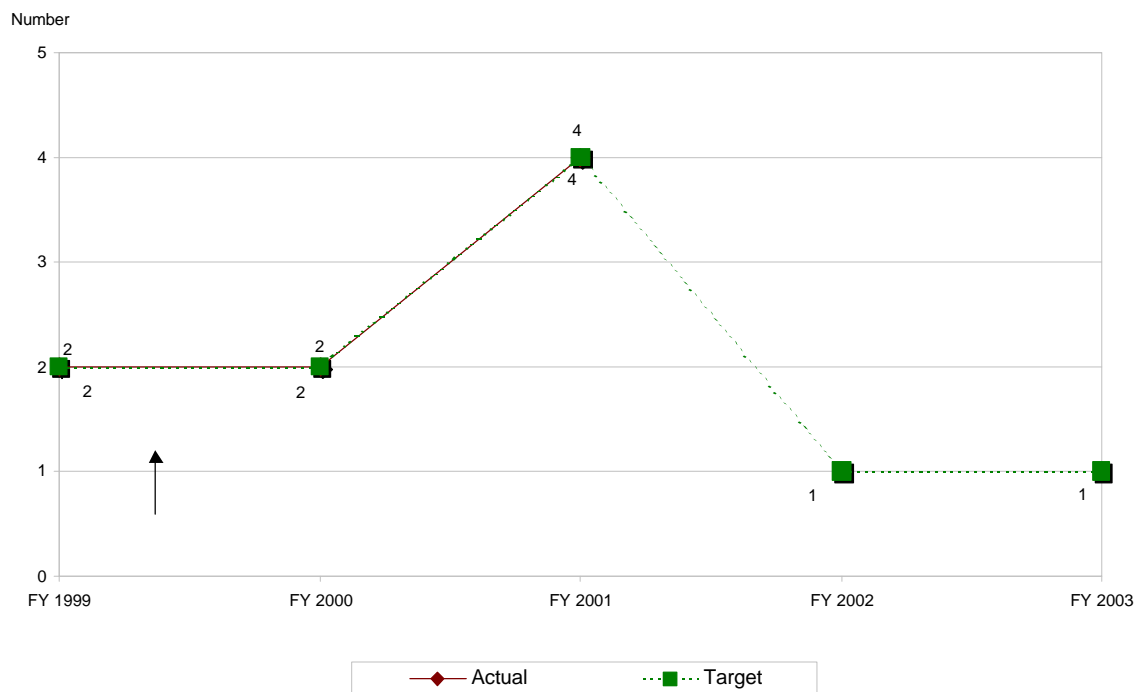
Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and the integrated management of the Tennessee River system.

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 2003 Target: 1

Target Explanation: TVA will complete 1 comprehensive reservoir land plan in FY 2003.

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

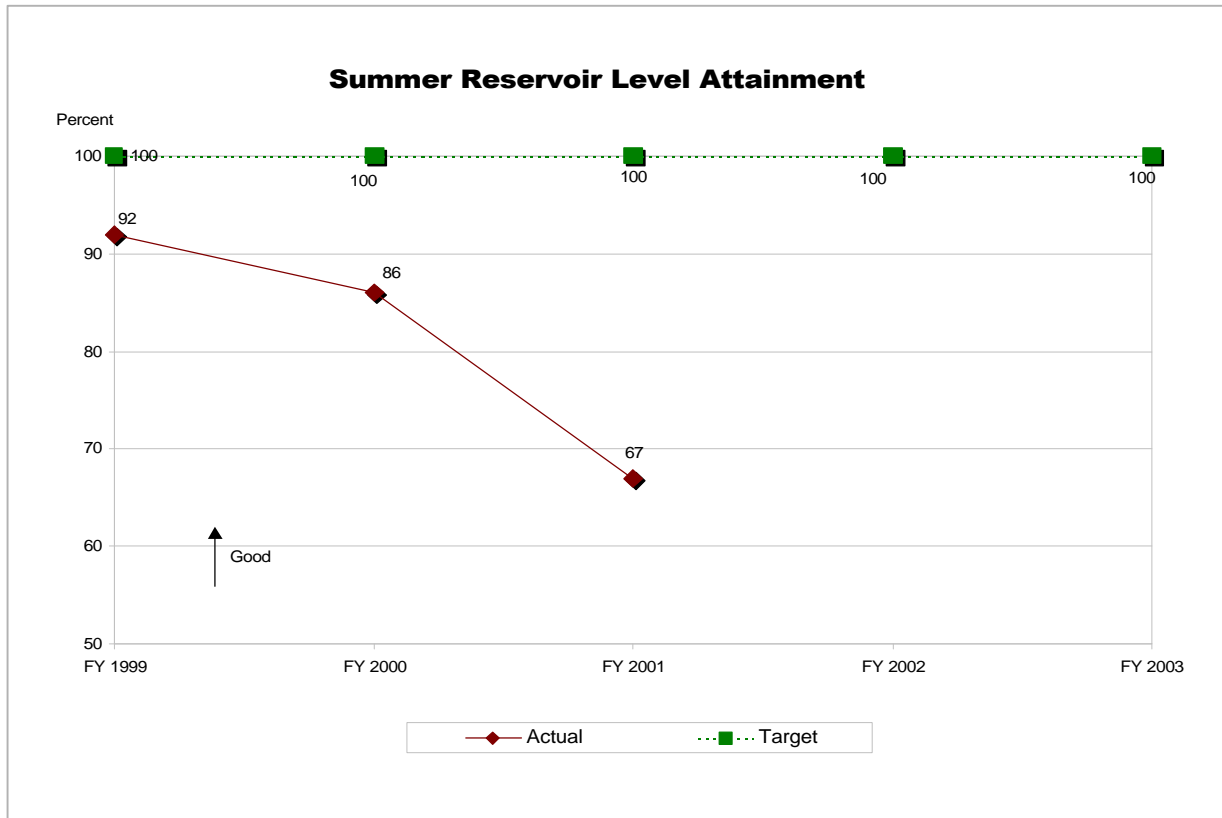
TVA Goal: Support a thriving river system.

Strategic Objective 2.A: Enhance the quality of life in the Tennessee Valley through environmental stewardship and the 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.



Target

FY 2003 Target: 100%

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.

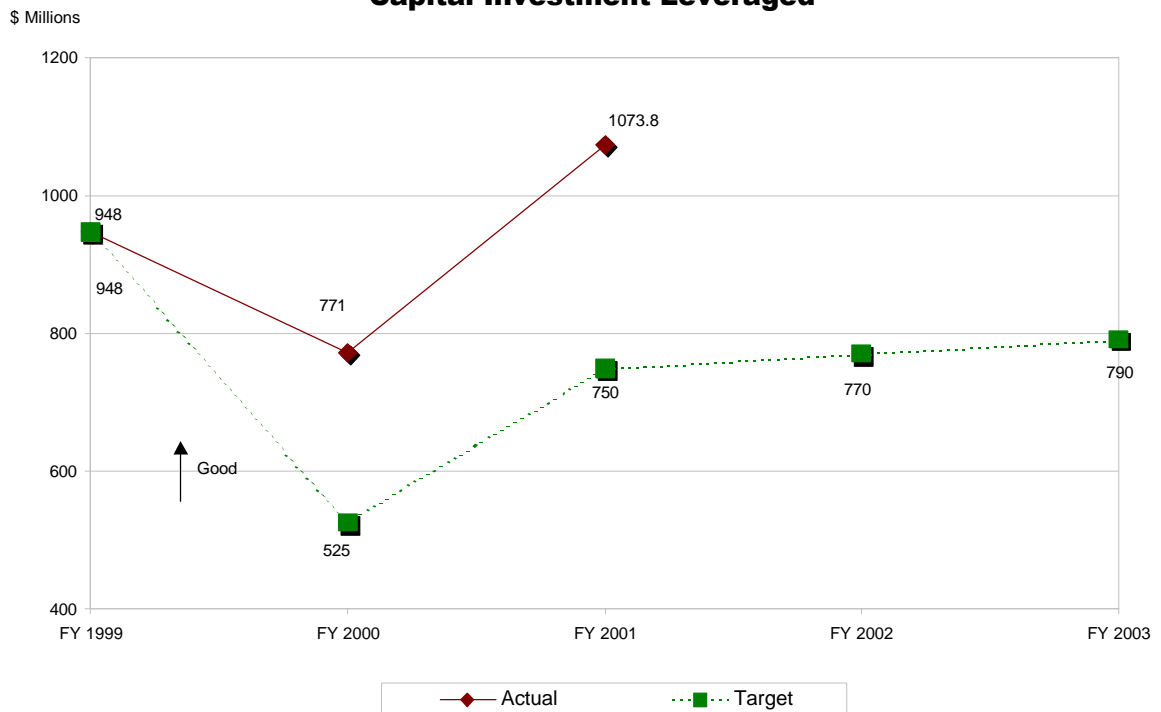
Strategic Objective 3.A: Support sustainable economic development in the Tennessee Valley.

Critical Success Factor 3.A.1: Promote development through targeted sustainable 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 2003 Target: \$790 million

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

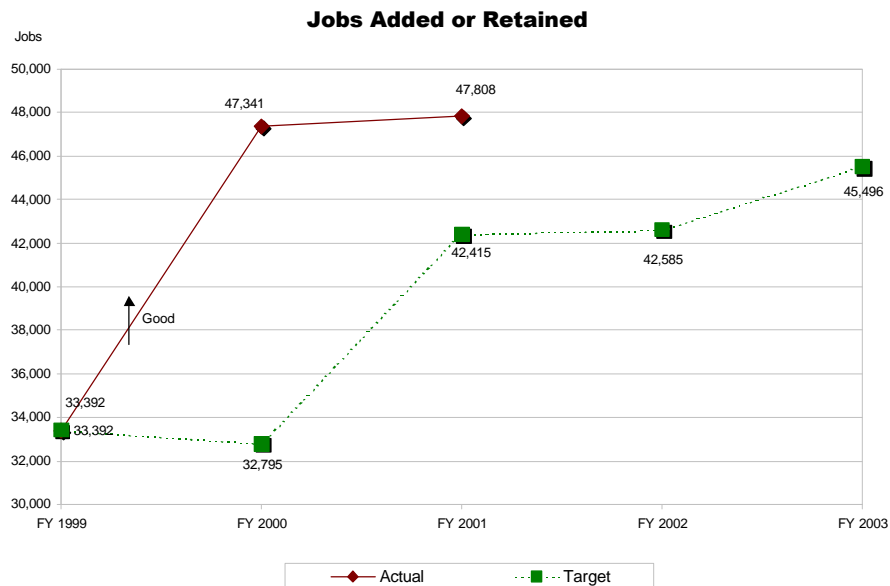
TVA Goal: Stimulate economic growth.

Strategic Objective 3.A: Support sustainable economic development in the Tennessee Valley.

Critical Success Factor 3.A.1: Promote development through targeted sustainable 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.)



Target

FY 2003 Target: 45,496 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 Value Index

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Stimulate economic growth.

Strategic Objective 3.B: Strengthen our working relationships - with Valley residents, communities and businesses; and with our customers, suppliers and government officials and representatives.

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

Description

TVA's most recent customer research reveals that our customers expect providers to meet their individual needs. With the advent of industry restructuring and changing business drivers, customers are requiring customization. No longer does one size fit all.

- TVA will be able to meet changing customer needs through targeting customer segments and providing products and services that meet the unique needs of those segments. This will require TVA to change from its "customer service" approach to one of managing processes to ensure "customer value". The customer value index measures how effectively TVA is interacting with customers to meet customer needs and add value.

Customer Value Index



Target

FY 2003 Target: This is a new measure. A baseline will be established in FY 2002 and the FY 2003 target will be set prior to the start of FY 2003.

Target Explanation: TVA is in the process of developing new ways of measuring the value of our relationships with all of our customers. The initial measurement for this strategy will be a customer focus index designed to measure how effectively we are interacting with customers and meeting their needs through products and services that add value.

Measurement and Validation: The index is being designed to include measures that gauge the effectiveness of customer contacts, customer value created through product and service offerings, and customer loyalty. The indicator will be tested and evaluated in FY 2003. Assessments will be made on which components will be measured on a continuous basis.

Societal Value Indicator

Stakeholder Process Satisfaction Index

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Stimulate economic growth.

Strategic Objective 3.B: Strengthen our working relationships - with Valley residents, communities and businesses; and with our customers, suppliers and government officials and representatives.

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

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 2003 Target: This is a new measure. A baseline will be established in FY 2002 and the FY 2003 target will be set prior to the start of FY 2003.

Target Explanation: TVA will implement a new process for Stakeholder Relations in FY 2001 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 2002 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.