Tennessee Valley Authority

GPRA Annual Performance Plan For FY 2005

Submitted

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TVA Vision, General Goals, and Objectives

Vision

Generating Prosperity in the Valley

Goals

TVA employees will set the standard for . . .

Supplying low-cost, reliable power

Meet the changing needs of power distributors and directly served customers for energy products and services in changing markets.

Supporting a thriving river system

Minimize flood damage, maintain navigation, support power production, improve water quality, protect public health and the environment, and support recreational uses.

Stimulating economic growth

Provide services based on core expertise to solve regional problems, protect natural resources, create jobs, and build partnerships for the public benefit.

. . . to improve the quality of every life.

Strategic Objectives:

- Meet customers' needs with affordable, reliable electric power;
- Reduce TVA's delivered cost of power relative to the market;
- Continue the trend of debt reduction;
- Improve life in the Tennessee Valley through integrated management of the river system and environmental stewardship;
- Demonstrate leadership in sustainable economic development in the Valley; and
- Strengthen working relationships with all of TVA's stakeholders.

Strategies to Achieve Goals

Goal 1: Supplying low-cost, reliable power

Meet the changing needs of power distributors and directly served customers for energy products and services in changing markets.

Strategic Objective 1.A

Reduce TVA's delivered cost of power relative to the market.

Strategy 1.A.1: Generate more for less.

Performance Goals: • Operating & Maintenance Cost

Productivity

Relationship between the Vision, Strategic Objective, and Strategy

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

Operating & Maintenance Cost is calculated as total expenses less fuel, purchased power, interest expense, and pension/postretirement financing costs. The measure places emphasis on controlling costs to allow TVA to focus on remaining competitive in the wholesale power market. Productivity is calculated by dividing TVA's planned availability (i.e., total generation planned to be available) by total operating and maintenance labor costs. This measure focuses on the impact of labor costs required to generate, transmit and sell power.

Achievement of this objective will require continued reductions in costs as well as 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.B

Continue the trend of debt reduction.

Strategy 1.B.1: Invest prudently.

Performance Goals: • Financial Strength

Bond Rating

Relationship between the Vision, Strategic Objective, and Strategy

A major component (about 19 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 and to consider 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.

Strategic Objective 1.C

Meet customers' needs with affordable, reliable electric power.

Strategy 1.C.1: Improve power reliability to meet customer requirements. .

Performance Goal: • System Reliability (Load Not Served)

Relationship between the Vision, Strategic Objective, and Strategy

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

Load Not Served shows the amount of time an average customer could expect to be interrupted if its load was constant throughout the year.

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.

Strategy 1.C.2: Achieve excellence in asset optimization and production processes.

Performance Goal: • Asset Availability

Fossil Plant Equivalent Availability FactorHydro Plant Equivalent Availability Factor

Nuclear Plant Net Capacity Factor

Relationship between the Vision, Strategic Objective, and Strategy

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 so that existing assets are available when needed most, will be critical to ensuring that customers benefit from TVA's lowest-cost generation units. 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.

Asset Availability is a measure of how well TVA's electric generation system (excluding purchase contracts) performed compared to planned availability and price forecasts. It is the ratio of actual to planned GWh available multiplied by a factor that reflects market price.

Equivalent Availability Factor is the energy that can be provided by a fossil or hydro generating asset (based on its being available for dispatch) divided by the maximum amount of energy that could have been provided by that asset (based on its capacity) over a specified period of time.

Net Capacity Factor is the amount of electricity that was actually generated by TVA's nuclear plants divided by the maximum amount of energy that could have been produced by the plant over a specified period of time.

The difference in the two calculations is that nuclear units are always operated when they are available (baseload) while some fossil and hydro units may not always be operated when they are available.

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.

Strategy 1.C.3: Provide flexible contracts and competitive pricing of products and services.

Performance Goal: • Energy sales (kWh)

Relationship between the Vision, Strategic Objective, and Strategy

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 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.

Energy Sales is the total kWh sold each year.

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.

Strategy 1.C.4: Manage the environmental and safety impacts TVA's operations

have on employees and the region.

Performance Measure: • Reportable Environmental Events

Sulfur Dioxide EmissionsNitrogen Oxide Emissions

• INPO Index

Relationship between the Vision, Strategic Objective, and Strategy

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 (NOx). TVA tracks its total amounts of these emissions. TVA has made multi-billion 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.

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.

Strategy 1.C.5: Achieve excellence in the customer value and relationship process.

Performance Measure: • Customer Satisfaction Index

Relationship between the Vision, Strategic Objective, and Strategy

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 by targeting customer segments and providing products and services that meet the unique needs of those segments. The Customer Satisfaction index is a monthly measure of key TVA performance elements that impact TVA's long-term relationship with its customers. It measures actual performance in key areas customers have stated are important to them such as power reliability, billing reliability, product timeliness and competitive price.

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.

Goal 2: Supporting a thriving river system

Minimize flood damage, maintain navigation, support power production, improve water quality, protect public health and the environment, and support recreational uses.

Strategic Objective 2.A

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

Strategy 2.A.1: Minimize flood damage by operating the river system according to best

management practices with flood control as a priority.

Performance Measure: • Flood Storage Availability

Relationship between the Vision, Strategic Objective, and Strategy

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.

Strategy 2.A.2: Maintain a navigable commercial waterway from Knoxville to Paducah

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

Shipper Savings

Relationship between the Vision, Strategic Objective, and Strategy

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 1940s will no longer be provided.

Strategy 2.A.3: Provide acceptable water quality

Performance Measure:
• Dissolved Oxygen Deficit Due to Forced Outages

Minimum Flow Achievement

Relationship between the Vision, Strategic Objective, and Strategy

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.

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.

Strategy 2.A.4: Optimize the value of hydro generation subject to flood

control, navigation, water quality, and summer reservoir-

level constraints.

Performance Measure: • Discretionary Zone Attainment

Relationship between the Vision, Strategic Objective, and Strategy

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.

Strategy 2.A.5: Support recreational uses of the river system and

associated federal lands.

Performance Measure: • 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 billion-dollar industry. Waterfront properties are highly valued and generate demands for growth that often conflict with the protection of public resources and wildlife habitat.

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 and update 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.

Goal 3: Stimulating economic growth

Provide services based on core expertise to solve regional problems, protect natural resources, create jobs, and build partnerships for the public benefit.

Strategic Objective 3.A

Demonstrate leadership in sustainable economic development in the valley.

Strategy 3.A.1: Promote development through targeted, growth initiatives.

Performance Measure: • Economic Development Index

Relationship between the Vision, Strategic Objective, and Strategy

Stimulating economic growth in the Valley is essential for the long-term competitiveness of TVA and the people we serve. In addition to TVA's low-cost, reliable electric power, TVA works with regional economic development partners to recruit industry, expand opportunities for existing business, and improve community preparedness for growth. TVA will address changing economic conditions by providing programs and services that meet the unique needs of our customers and stakeholders.

The Economic Development Index measures TVA's effectiveness in supporting job attraction and retention through assistance by TVA and the Regional Industrial Development Associations and stimulating capital investment by public and private partners. The index also measures job quality by targeting jobs that pay higher-than-average wages and focusing on areas of high unemployment.

Achievement of this objective will require a continued supply of affordable reliable electric power, industrial development expertise, strategic partnerships with community and business leaders, technical and business services, and a sound marketing plan of the Tennessee Valley power service area.

Relationship of TVA's General Goals and Strategies to the Performance Goals

Performance Goals are selected to support attainment of the General Goals and Strategies and are expressed as performance indicators and annual targets. The following table summarizes information from the previous section and demonstrates the linkages between TVA's General Goals, Objectives, Strategies, and Performance Goals / Measures.

TVA GENERAL GOALS, OBJECTIVES, STRATEGIES, AND PERFORMANCE MEASURES

Goals	1	Objectives		Strategies	Performance Measures
1. Supplying low-cost, reliable power	1.A		1.A.1	Generate more for less.	
	1.B	Continue the trend of debt reduction.	1.B.1	Invest prudently.	Financial StrengthBond Rating
	1.C	Meet customers' needs with affordable, reliable electric power.	1.C.1	Improve power reliability to meet customer requirements.	 System Reliability (Load Not Served)
			1.C.2	Achieve excellence in asset optimization and production processes.	 Asset Availability Fossil Plant Equivalent Availability Factor Hydro Plant Equivalent Availability Factor Nuclear Plant Net Capacity Factor
			1.C.3	Provide flexible contracts and competitive pricing of products and services.	 Energy Sales (kWh)
			1.C.4	Manage the environmental and safety impacts TVA's operations have on employees and the region.	 Reportable
			1.C.5	Achieve excellence in the customer value and relationship process.	Customer Satisfaction Index

Goals		Objectives		Strategies	Performance Measures
2. Supporting a thriving river system		Improve life in the Tennessee Valley through integrated management of the river system and environmental stewardship.		Minimize flood damage by operating the river system according to best management practices with flood control as a priority.	Flood Storage Availability
			2.A.2	Maintain a navigable commercial waterway from Knoxville to Paducah.	 Days Navigable Waterway Is Available from Knoxville to Paducah Shipper Savings
			2.A.3	Provide acceptable water quality.	 Dissolved Oxygen Deficit Due to Forced Outages Minimum Flow Achievement
			2.A.4	Optimize the value of hydro generation subject to flood control, navigation, water quality, and summer reservoir-level constraints.	Discretionary Zone Attainment
			2.A.5	Support recreational uses of the river system and associated federal lands.	Summer Reservoir Level Attainment
3. Stimulating economic growth	3.A	Demonstrate leadership in sustainable economic development in the Valley.	3.A.1	Promote development through targeted growth initiatives.	Economic Development Index

Part II - GPRA Annual Performance Plan for FY 2005

TVA has only 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 will come from Power Program revenues with the exception of fees TVA receives that are associated with its multipurpose reservoir operations activities. TVA has developed a GPRA Program Activity Structure to accommodate the interrelationships between many of TVA's stewardship programs.

TVA GPRA Program Activity Structure

TVA P&F Budget	Performance Measure			
Category				
Supplying low-cost, reliable power	 O&M Costs Productivity Financial Strength Bond Rating System Reliability (Load Not Served) Asset Availability Fossil Plant Equivalent Availability Factor Hydro Plant Equivalent Availability Factor Nuclear Plant Net Capacity Factor Energy Sales (kWh) Reportable Environmental Events Sulfur Dioxide Emissions Nitrogen Oxide Emissions INPO Index Environmental Impact Index Customer Satisfaction 			
Supporting a thriving river system Stimulating Economic Growth	 Flood Storage Availability Days Navigable Waterway is Available from Knoxville to Paducah Shipper Savings Dissolved Oxygen Deficit Due to Forced Outages Minimum Flow Achievement Discretionary Zone Attainment Summer Reservoir Level Attainment Economic Development Index 			
- Sumulating Economic Glowth	Leonomic Development index			

Descriptions of Performance Goals and Means to Verify and Validate Values

The following pages describe TVA's GPRA performance goals, its FY2005 targets, and how performance will be measured and validated.

O&M Costs

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

Strategic Objective 1.A: Control O&M expenses to allow TVA to focus on competitiveness in a deregulated wholesale power market.

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

Description

Customers view price as a deciding factor in whether or not they would switch suppliers. Continued awareness and emphasis on controlling costs allows TVA to focus on competitiveness in the wholesale power market and positioning for future success. TVA calculates O&M expenses as total expenses less fuel, purchased power, interest expense and pension/postretirement financing costs.



Target Explanation: This is a new target beginning in FY 2004. TVA sets the target annually based on TVA's approved business plan.

Measurement and Validation: O&M expense is measured as total expenses less fuel, purchased power, interest expense and pension/postretirement financing costs.

Productivity

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost, reliable power.

Strategic Objective 1.A: Reduce TVA's delivered cost of power relative to the market.

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

Description

This measure provides a direct line of sight for all employees by demonstrating their individual contribution in controlling costs while producing TVA's principal source of revenue, electricity. This measure is directly impacted by management decisions in managing labor.



Target

FY 2005 Target: To be determined

Target Explanation: This is a new target beginning in FY 2004. TVA sets the target annually based on planned available generation and total O&M labor costs.

Measurement and Validation: Productivity measures the planned available generation per Operating and Maintenance (O&M) labor cost dollar. The components of TVA's O&M labor costs for TVA employees include straight-time, overtime, and benefits (excluding pension costs) and O&M contract labor costs (labor only). Planned available generation includes combustion turbine, conventional hydro, fossil, nuclear and pumped storage.

Financial Strength

Goal/Strategic Objective/Critical Success Factor

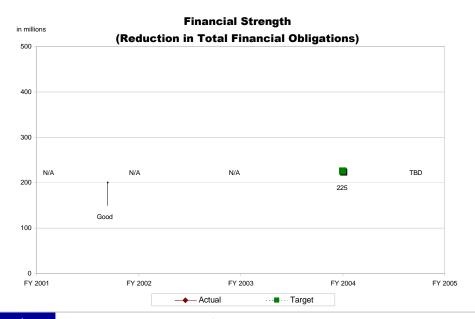
TVA Goal: Supply low-cost reliable power.

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

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

Description

Financial Strength is a measure of the reduction in debt-like instruments. The electric utility industry has become increasingly competitive over the last decade. Competition is expected to intensify, and restructuring legislation may dramatically change the way electric utilities do business in the future. We need to build more financial flexibility so that TVA can weather the greater volatility of revenues that comes with competition. In order to produce a more flexible cost structure, TVA has expanded its resources for capital by entering in lease-leaseback transactions (for both Combustion Turbine units and certain technological equipment in the control rooms) and arrangements with customers prepayment of energy. Although these transactions provide favorable financing alternatives for TVA, they are debt-like in nature.



Target

FY 2005 Target: To be determined

Target Explanation: This is a new target beginning in FY 2004. TVA sets the target annually based on approved business plans for each organization.

Measurement and Validation: Financial strength is measured as the change in debt-like instruments including statutory debt, CT lease obligations, prepaid energy obligations, and QTE's (Qualified Technological Equipment)

Bond Rating

Goal/Strategic Objective/Critical Success Factor

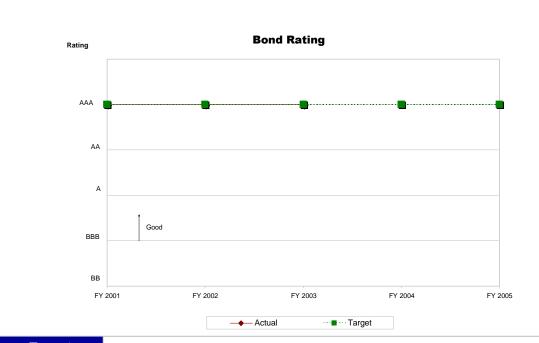
TVA Goal: Supply low-cost reliable power.

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

Critical Success Factor 1.B.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 2005 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.

System Reliability - Load Not Served

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

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

Critical Success Factor 1.C.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 2005 Target: 4.22 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:

((LNS in MWH)/(LS + LNS in MWH))) * 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:

(10/(10+600,000))*525,600(minutes in a year)=8.76 minutes of LNS.

Asset Availability

Goal/Strategic Objective/Critical Success Factor

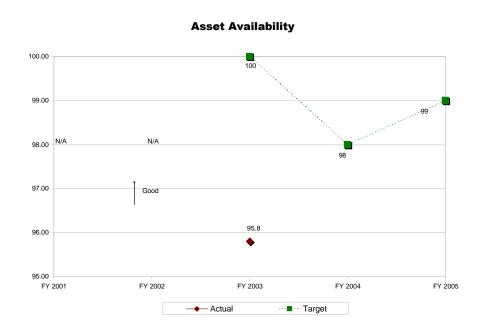
TVA Goal: Supply low-cost, reliable power.

Strategic Objective 1.C: Meet customers' needs with affordable electric power.

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

Description

Asset Availability is a monthly measure of how well TVA's generation system (excluding purchase contracts) performed compared to availability and price forecasts. It is the ratio of actual to planned availability multiplied by a value factor that reflects market price.



Target FY 2005 Target: 99

Target Explanation: This was a new target introduced in FY 2003. TVA sets the target annually based on planned generation performance and market price forecasts.

Measurement and Validation: Asset Availability is calculated monthly as the ratio of actual to planned availability (in GWh) multiplied by a value factor. The value factor is based on the forecast monthly price for on peak power for each month relative to the average forecast monthly price for the year.

Fossil (Coal-Fired) Plant Equivalent Availability Factor

Goal/Strategic Objective/Critical Success Factor

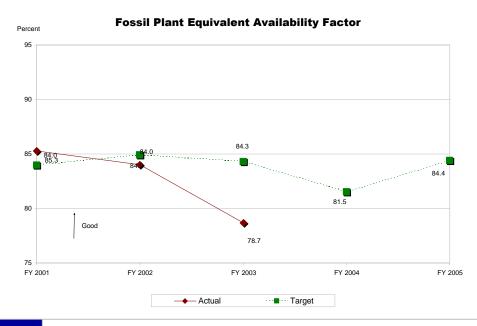
TVA Goal: Supply low-cost reliable power.

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

Critical Success Factor 1.C.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.



Target FY 2005 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).

Hydro Equivalent Availability Factor

Goal/Strategic Objective/Critical Success Factor

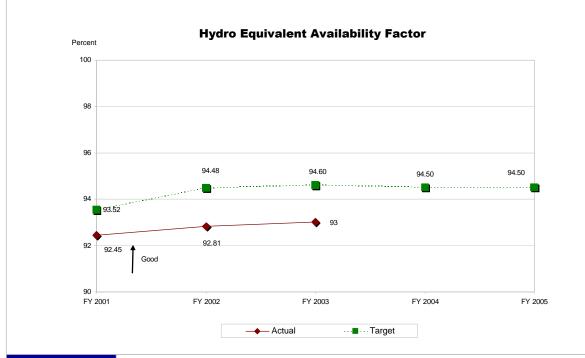
TVA Goal: Supply low-cost reliable power.

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

Critical Success Factor 1.C.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.



Target FY 2005 Target: 94.5 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.

Nuclear Plant Net Capacity Factor

Goal/Strategic Objective/Critical Success Factor

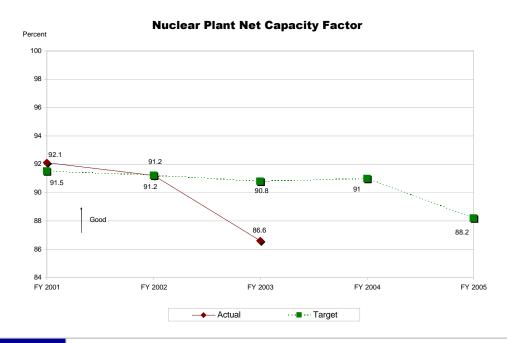
TVA Goal: Supply low-cost reliable power.

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

Critical Success Factor 1.C.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.



Target FY 2005 Target: 88.2 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.

Energy Sales (kWh)

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

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

Critical Success Factor 1.C.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.



Target FY 2005 Target: 170.3 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 patters.

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

Reportable Environmental Events

Goal/Strategic Objective/Critical Success Factor

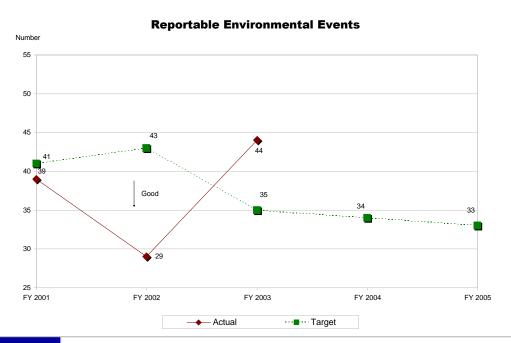
TVA Goal: Supply low-cost, reliable power.

Strategic Objective 1.C: Meet our customers needs with affordable, reliable electric power.

Critical Success Factor 1.C.4: 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.



Target

FY 2005 Target: 33

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.

Sulfur Dioxide Emissions

Goal/Strategic Objective/Critical Success Factor

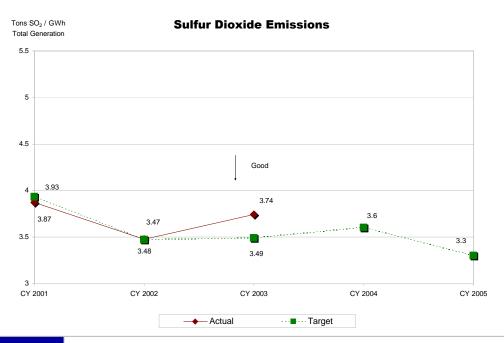
TVA Goal: Supply low-cost, reliable power.

Strategic Objective 1.C: Meet our customers' needs with affordable, reliable electric power.

Critical Success Factor 1.C.4: 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 SO_2 emissions by using scrubbers and switching to lower sulfur fuels. TVA monitors its emissions to verify compliance with the Clean Air Act.



Target CY 2005 Target: 3.3 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: SO_2 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 SO_2 emitted are divided by total TVA system (calendar year) generation to determine the tons emitted per GWH of generation.

Nitrogen Oxide Emissions

Goal/Strategic Objective/Critical Success Factor

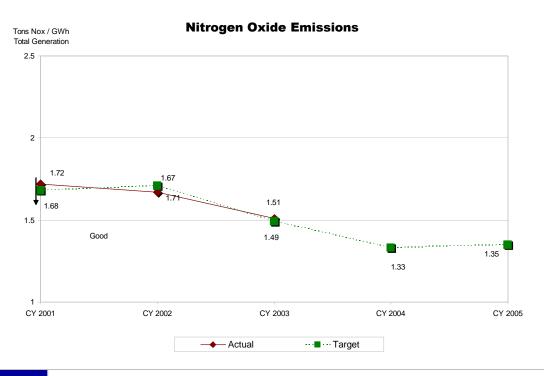
TVA Goal: Supply low-cost, reliable power.

Strategic Objective 1.C: Meet our customers' needs with affordable, reliable electric power.

Critical Success Factor 1.C.4: 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.



Target CY 2005 Target: 1.35 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 2005.

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.

Institute of Nuclear Power Operators (INPO) Index

Goal/Strategic Objective/Critical Success Factor

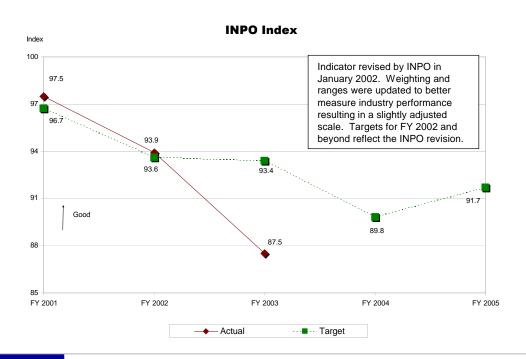
TVA Goal: Supply low-cost reliable power.

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

Critical Success Factor 1.C.4: Manage the environmental and safety impacts TVA's operations have 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 2005 Target: 91.7

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.

Customer Satisfaction

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Supply low-cost reliable power.

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

Critical Success Factor 1.C.5: Achieve excellence in the customer value and relationship process.

Description

This indicator is a monthly measure of key TVA performance elements that impact TVA's long-term relationship with its customers. The purpose is to allow TVA employees to compare their actual performance against target measures to evaluate how the work they perform contributes to TVA's overall success in achieving customer satisfaction.



Target FY 2005 Target: 100%

Target Explanation: This is a new target beginning in FY 2004. This indicator is a monthly measure of key TVA performance elements that impact TVA's long-term relationship with its customers. It measures actual performance against target in four key areas: power reliability, billing reliability, product timeliness, and competitive pricing.

Measurement and Validation: Customer satisfaction is equal to 100 percent * [25% * (target/actual power reliability) + 25% * (target/actual billing reliability) + 25% * (target/actual product timeliness) + 25% * (target/actual competitive price)].

Flood Storage Availability

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

Strategic Objective 2.A: Improve life in the Tennessee Valley through integrated management of the river system and environmental stewardship.

Critical Success Factor 2.A.1: 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 100 88.7 90 80 80 80 Good 70 63.5 FY 2001 FY 2002 FY 2003 FY 2004 FY 2005 Actual ···■ ··· Target

Target FY 2005 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 ≥ 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.

Days Navigable Waterway is Available from Knoxville to Paducah

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

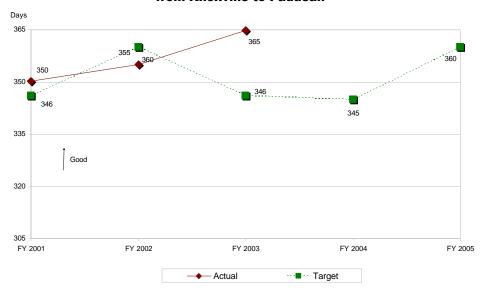
Strategic Objective 2.A: Improve life in the Tennessee Valley through integrated management of the river system and environmental stewardship.

Critical Success Factor 2.A.2: 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 2005 Target: 360 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.

Shipper Savings

Goal/Strategic Objective/Critical Success Factor

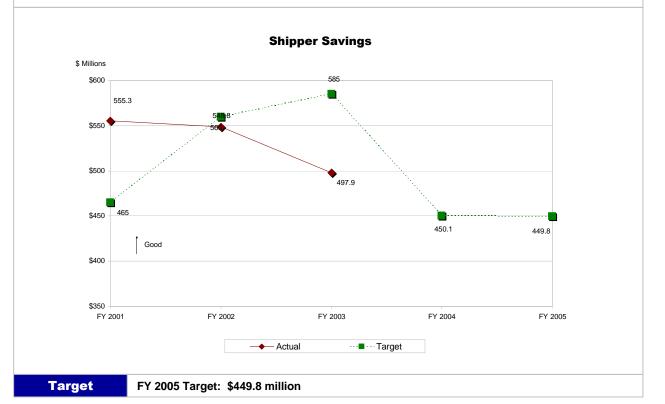
TVA Goal: Support a thriving river system.

Strategic Objective 2.A: Improve life in the Tennessee Valley through integrated management of the river system and environmental stewardship.

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 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.

Dissolved Oxygen Deficit Due to Forced Outages

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

Strategic Objective 2.A: Improve life in the Tennessee Valley through integrated management of the river system and environmental stewardship.

Critical Success Factor 2.A.3: 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 2005 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.

Minimum Flow Achievement

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

Strategic Objective 2.A: Improve life in the Tennessee Valley through integrated management of the river system and environmental stewardship.

Critical Success Factor 2.A.3: 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.



Target FY 2005 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.

Discretionary Zone Attainment

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

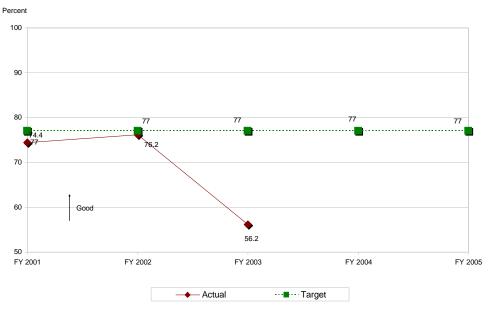
Strategic Objective 2.A: Improve life in the Tennessee Valley through integrated management of the river system and environmental stewardship.

Critical Success Factor 2.A.4: 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 2005 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.

Summer Reservoir Level Attainment

Goal/Strategic Objective/Critical Success Factor

TVA Goal: Support a thriving river system.

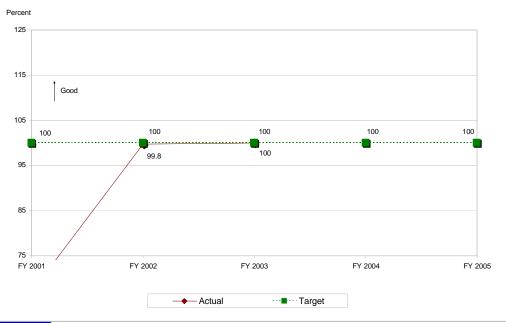
Strategic Objective 2.A: Improve life in the Tennessee Valley through integrated management of the river system and environmental stewardship.

Critical Success Factor 2.A.5: 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 Attainment Level



Target

FY 2005 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%.

Economic Growth

Economic Development Index

Goal/Strategic Objective/Critical Success Factor

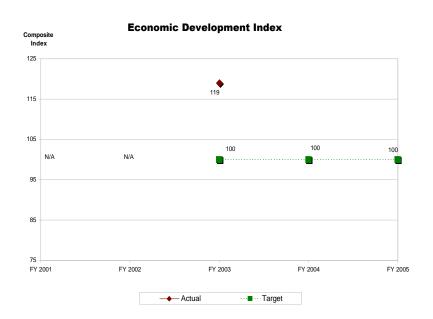
TVA Goal: Stimulating economic growth.

Strategic Objective 3.A: Demonstrate leadership in sustainable economic development in the 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 in the Tennessee Valley. Energy customers are interested in the economic vitality of their communities resulting from projects which focus on business growth and industrial development. In this performance goal, TVA is measuring the overall impact of employment opportunities, financial investment, and quality of life improvements for Valley residents.



Target

FY 2005 Target: 100

Target Explanation: This was a new target in FY 2003. The Economic Development target is based on ratios of meeting the project target criteria for jobs attracted or retained, capital investment leveraged, and quality jobs.

Measurement and Validation: Data are reported based on commitments with strategic partners to support job growth, leverage project investments, and enhance job quality in the region.