# Tennessee Valley Authority Government Performance and Results Act (GPRA)

# **GPRA Annual Performance Plan For FY 2007**

Submitted **February 2006** 



## **Foreword**

In January 2004, TVA issued its Strategic Plan outlining the areas TVA needs to address in order to prepare for a competitive electricity wholesale market in the Tennessee Valley, the region served by TVA. That plan considers broad, fundamental questions:

- What will the future competitive environment be like?
- What will TVA need to do to be successful in that environment?
- How do we transition from a monopoly business model to a competitive business model?
- What do we need to do to get ready?

The Strategic Plan is directional and provides a framework for what TVA needs to do to preserve its core mission and remain financially sound in a more competitive market.

This document is TVA's GPRA Performance Plan for FY 2007. It contains the specific information that is required by the Government Performance and Results Act. This FY 2007 GPRA Performance Plan is based on TVA's 2004 Strategic Plan but describes in more detail how the broad goals in the Strategic Plan will be implemented.

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### TVA Vision, General Goals, and Objectives

#### 1.0 TVA Vision

Generating Prosperity in the Valley

#### 2.0 TVA Mission Statement

TVA plays a vital role in improving the quality of life in the Tennessee Valley through the three interrelated parts of its mission:

#### **Energy**

TVA is the largest public power provider in the nation and provides reliable, low-cost power for the residents and businesses in the Tennessee Valley.

#### **Environment**

TVA manages the Tennessee River System, managing the benefits of navigation, flood control, power production, water supply, water quality, recreation and land use.

#### **Economic Development**

TVA further supports economic development by providing technical assistance, research data, and financial assistance to help communities and businesses thrive.

## 3.0 Long-Term General Goals

TVA's strategic plan was developed to identify what TVA needs to do to preserve its core mission and remain financially viable in a more competitive market.

TVA's general goals that define how the core mission is achieved are as follows:

#### **Energy**

Supply low-cost, reliable power and meet the changing needs of power distributors and directly served customers for energy products and services in changing markets.

#### **Environment**

Support a thriving river system to minimize flood damage, maintain navigation, support power production, improve water quality, protect public health and the environment, support recreational uses, and manage land to provide multiple public benefits.

#### **Economic Development**

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

## 4.0 Strategic Objectives

The general goals are supported by the following 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, now referred to as total financing obligations (TFOs);
- 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.

In addition to the long-term goals and strategic objectives needed to fulfill TVA's core mission, the Strategic Plan identified four specific areas that TVA should focus on to prepare for a more competitive market:

- 1) <u>Pricing, Services and Products</u> Develop new, more highly differentiated prices, services and contract terms that more closely tie the cost and risk of the product to its terms and pricing.
- 2) <u>Transmission Pricing</u> Address the range of issues related to wholesale market design and transmission pricing, including how TVA will interface with the markets that are expected to surround us, as well as how TVA will price transmission services within the Valley when distributors can choose other suppliers.
- 3) Improved Financial Flexibility Accelerate reduction of total financing obligations (TFOs) and achieve higher interest coverage ratios to provide the financial flexibility needed to tolerate the higher levels of revenue and cost volatility associated with a more competitive market.
- 4) <u>Maintain Assets</u> Maintain and operate generation and transmission assets to fulfill supply obligations in a safe and reliable manner.

#### 5.0 Performance Indicators

In February 2005, TVA developed and submitted, its FY 2006 Performance Plan. The plan included critical success factors and performance indicators (as shown in Exhibit 1) that would measure the direct relationship between activity at the operational level and TVA's ability to successfully complete its strategic objectives. On March 3, 2005, TVA came under the direction of a new President & Chief Operating Officer (COO). In a subsequent action on May 2, 2005, the TVA Board announced the realignment of TVA's senior management team. Based on the review by the new management team, TVA has replaced or modified certain existing indicators for FY 2006. Additional indicators remain under management review.

#### 5.1 TVA-Level Performance Indicators

Performance indicators were placed into four categories with a total of eight measures as follows:

#### 5.1.1 Financial

**Total Financing Obligations** - A measure of the reduction in debt and debt-like instruments or TVA's total financing obligations. The electric utility industry has become increasingly competitive over the past 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. To produce a more financially flexible cost structure, TVA has expanded its resources for capital by entering into lease-leaseback transactions (for both combustion turbine units and certain technological equipment) and arrangements with customers for prepayment of energy. Although these transactions provide favorable financing alternatives for TVA, they are debt-like in nature. The Total Financing Obligation measure relates to TVA's strategic objective of continuing the trend of improving overall financial flexibility. Lowering debt and debt-like financial obligations over the long-term will produce a more flexible cost structure, allowing TVA to act more advantageously in the changing power market.

**Net Cash Flow -** A successful business must have a favorable net cash flow on its revenue stream, in TVA's case, power generation. By measuring net cash flow, TVA assesses the TFO reduction capacity of our power generation business. Employees can limit operating expenses (e.g. material costs, travel, office supplies, contract expenditures, etc.) and make prudent use of TVA's resources. This measure rewards employees for effective cost and cash management.

**Productivity -** More competition in the electric utility and the energy services sector requires that we manage our production costs to effectively compete for and retain our customer base. The components of TVA's Productivity measure are labor costs for employees (straight time, overtime, and benefits excluding workers compensation costs) and contract labor costs (fully burdened labor only).

These labor cost components are directly controlled by TVA and are not subject to outside influences like fuel and financing costs. Also, due to the uniqueness of the Browns Ferry 1 Restart project, all labor costs associated with it will be excluded. The Power Supply Plan represents the plan TVA will use to meet the needs of its customers, and the Productivity measure represents the labor costs associated with fulfilling that plan. The Productivity measure helps employees understand how their job performance, and the efficient use of resources, contributes to TVA's ability to deliver affordable, reliable electric power.

#### 5.1.2 Customer-Stakeholder

**Customer Impact** - Customer Impact is a quarterly measure of key TVA performance elements that affect TVA's long-term relationship with its customers. The measure focuses on two elements that are deemed important by customers and TVA. Positive customer impact will lead to improved customer relationships/satisfaction and an increased likelihood of long-term relationships with customers (customer retention). The Customer Satisfaction Survey measures satisfaction with TVA as a wholesale supplier, as well as satisfaction of directly served customers with TVA as a retail supplier.

**Economic Development -** The Economic Development Index is a monthly measure of the effectiveness of TVA's sustainable economic development efforts. It includes job growth (Jobs Added and Retained) in the Valley based on financial or technical assistance provided by TVA or its Regional Industrial Development Association (RIDA) partners, investments by economic development partners in projects receiving technical or financial assistance from TVA (Capital Investment Leveraged), and a measure of quality jobs, based on economic conditions, where the average wage exceeds the Valley's average

annual wage (or is 10 percent greater than the county average wage) or the county unemployment rate is more than 25 percent higher than the Valley rate (Jobs Impact).

#### 5.1.3 Operations Process

**Asset Availability** - A monthly 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 (gigawatt-hours) available multiplied by a value factor that reflects market price.

- Actual GWh available is the actual Equivalent Availability Factor (EAF) for Fossil, Hydro, and Pumped Storage, and Running Reliability for Combustion Turbines. Nuclear Availability is the Net Capacity Factor (NCF).
- Planned GWh available is the planned Equivalent Availability Factor (EAF) for Fossil, Hydro, Pumped Storage, and Running Reliability for Combustion Turbines. Nuclear Availability is the Net Capacity Factor (NCF)
- Value factor is based on the monthly average of the projected market price for on-peak power during the fiscal year in which performance is being measured. Market price is the Market Evaluation Price Forecast (MEPF).

This measure increases awareness that generation availability requires all assets to be managed as a whole, increases awareness of the effect of market prices on the value of generation availability, and reflects the effects of deviations in outage durations, derates, etc., on GWh available to serve load.

**Environmental Impact Index -** A composite of environmental performance factors in terms of beneficial and detrimental impacts (or precursors) on Air Quality, Water Quality, Land, Waste Production, and Energy Consumption compared to a baseline of FY 2002. Environmental impacts, both positive and negative, come from many facets of TVA's operations. The Environmental Impact Index is a composite of 23 elements (beginning in FY 2006) in five categories allowing greater "line of sight" for more employees and demonstrates the balance between the different types of impacts. Tradeoffs and mitigation are also visible in the measure, providing a comprehensive view of TVA's overall environmental performance. The purpose of the measure is to improve environmental performance, increase employee awareness of operational impacts, and allow responsive modifications to operations.

#### 5.1.4 People

**Safe Workplace -** This is a rate-based measure of safety. It tracks the number of recordable injuries incurred by TVA employees or staff-augmented employees and types of work-related injuries and illnesses reported by employees through TVA's record keeping system for safety statistics. The purpose of this measure is to strive for the protection and well-being of employees, the avoidance of costs associated with workers' compensation expenses, the strengthening of TVA's role as a corporate citizen, and the practice of teamwork. Any TVA employee or staff augmentation contractor fatality or permanent total disability will prevent payout for this indicator at the TVA level as well as the affected SBU/BU.

While each performance indicator is a distinct measurement, each may impact the outcome of multiple goals and objectives.

#### 5.2 COO/SBU-Level Performance Indicators

In addition to the TVA-level indicators, measures from the Chief Operating Officer (COO) and Strategic Business Unit (SBU) Report cards (shown in Exhibit 3) will complement TVA's performance measure reporting requirements for the GPRA Annual Performance Plan.

#### 5.2.1 Net Electrical Generation (Billion kWh)

Net Electrical Generation is the total electric energy produced by the generating units less energy consumed for the generating units use measured in billions of kWh. This measurement is a composite of the scores from each component of TVA's generation mix: TVA Nuclear (TVAN), the Fossil Power Group (FPG), and Hydro Power.

#### 5.2.2 TVAN Contribution to Delivered Cost of Power (mills/kWh)

This measures the cost of generating power per unit of output (kWh) by the TVA Nuclear (TVAN) organization.

The purpose is to focus on cost-effective operation of the nuclear plants by minimizing refueling outage durations and reducing unplanned scrams.

#### 5.2.3 TVAN INPO Performance Index (INPO)

TVA uses the Institute of Nuclear Power Operations (INPO) index as its primary nuclear safety index. It is a weighted combination of nine overall performance indicators and is a useful tool for management in trending overall station performance. This measure is the recognized industry standard for trending operations performance based on safety and reliability.

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.

#### 5.2.4 FPG Contribution to Delivered Cost of Power (mills/kWh)

This measures the cost of generating power per unit of output (kWh).

The purpose is to focus on cost-effective operation of the fossil plants. Fossil production expense includes plant base and outage, O&M projects, reagents, yard, and central office. Fuel expense includes coal.

#### 5.2.5 FPG Equivalent Forced Outage Rate (EFOR) (%)

This measurement focuses on achieving reliable operation.

As an indicator of unit reliability, the percentage of generation lost due to forced outages and forced deratings is measured.

# 5.2.6 Power System Operations (PSO) Connection Point Interruption (Interruptions Per Delivery Point)

Customers rank reliability as most critical in importance and are requesting improved performance in all aspects of reliability, including momentary interruptions.

The Connection Point Interruption index measures reliability from our customers' perspective. It tracks interruptions of power, including momentary, at customer connection points that are caused by the transmission system.

#### 5.2.7 Power System Operations (PSO) Load Not Served (minutes)

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

Load Not Served is a measure of the magnitude and duration of power outages that affect TVA customers expressed in system minutes.

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

#### 5.2.8 Power System Operations (PSO) Transmission Expense per Total Energy Delivery

Operating cost for the transmission system expressed as a year-to-date cost in mills per kWh sold.

#### 5.2.9 Hydro Equivalent Forced Outage Rate (EFOR) - Total System (%)

Electricity generation is a major function of the multipurpose assets within TVA's River Operations business unit. The purpose of this measure is to focus on achieving reliable unit operation to meet power demands of the TVA system and ensure optimal use of available water resources.

Achievement of this objective requires that TVA institute and implement effective preventive and corrective maintenance programs and make capital investments in the system to ensure reliable hydro generation.

#### 5.2.10 Flood Storage Availability (%)

This new indicator supersedes a similar indicator of the same name. Flood storage availability indicates TVA's readiness to reduce flood damage. The reservoir system is operated based on the TVA Act and broad policy last reviewed as part of the Reservoir Operations Study (ROS) in 2004. Based on these guidelines, monthly flood storage availability targets were estimated. 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 to maintain and improve data collection and modeling capabilities.

#### 5.2.11 Days Navigable Waterway is Available from Knoxville, TN, to Paducah, KY (Days)

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. This performance goal monitors TVA's effectiveness in meeting customer expectations.

Achievement of this objective requires that TVA retain responsibility for integrated river operation, that the existing cooperation between TVA and the U.S. Army Corps of Engineers (USACE) be continued, and that resources be available to maintain locks and related facilities. The concrete growth problem at Chickamauga Dam Lock will make it necessary to complete the design and construction of a replacement lock prior to its projected forced closure by 2012. 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.

# 5.2.12 Land and Water Stewardship (Points) (Replaces Shoreline Management Performance (Points) in FY 2006)

This metric is a combination of the performance of four functions associated with TVA's stewardship responsibilities: (1) Water Quality Objectives Completed, (2) Restored Shorelines, (3) Resource Management Projects Completed, and (4) Recreation Projects Completed. Water Quality Objectives Completed tracks the number of major milestones achieved in implementing targeted watershed initiatives and the number of milestones achieved in evaluating and reporting water resource conditions. Shoreline Restored tracks the number of critically impaired shoreline miles which are enhanced or stabilized through shoreline restoration and re-vegetation activities. Resource Management Projects Completed tracks the number of natural resources conservation projects implemented. Recreation Projects Completed tracks the number of reservoirs for which recreation data is updated, data on informal recreation areas is collected and analyzed and campgrounds are assessed and evaluated.

Achievement of these objectives requires that TVA has staff trained in water quality improvement, stabilization of shoreline and management of natural resources and recreation.

#### 6.0 Resources and Skills Needed To Achieve Goals

#### 6.1 Financial Resources

The TVA Act gives the TVA Board both the authority and the requirement to set electric rates at a level to cover all power system costs while being responsible to the Act's objective that power be sold at rates as low as feasible. The Energy and Water Development Appropriations Bill of 1998 authorized TVA to use power revenues to pay for essential stewardship activities previously funded by federal appropriations.

In FY 2005, the TVA Board approved a 7.5 percent increase in firm wholesale power rates which became effective October 1, 2005. This rate increase was primarily needed to cover the rising costs of coal, natural gas, and purchased power.

#### 6.2 Physical Resources

TVA's success in carrying out its mission requires that TVA retain management and operational responsibility for the Tennessee River system and other federal assets crucial to its statutory responsibility.

#### 6.3 Management and Human Resources

TVA will need to maintain its existing skills and processes related to power supply, resource stewardship, and economic development. In addition, TVA will need to develop a number of new processes and skills to prepare for a competitive environment. The major initiatives include the following:

- Continued efforts across the organization to improve efficiency. The activities involved include not only benchmarking best-in-class performers, but also raising the bar on TVA's own performance related to reliability, forced outage rates, and overall cost.
- Continued training to develop a multi-skilled workforce to improve labor productivity.
- Developing new tools to support the development of products and services consistent with a competitive market, including new methods for:
  - determining TVA's cost to provide different types of service
  - evaluating and quantifying risk, and
  - modeling the price of competitive alternatives.
- Developing new methods for evaluating future investments in generation and new financial criteria that reflect the uncertainty in future revenue available to recover those investments.
- Developing the processes to provide unbundled transmission service for distributors who want to choose other suppliers and developing the rules for implementing priority service for native-load transmission customers.

# 7.0 Relationship Between Annual Performance Goals and the Long-Term (General) Goals in the Strategic Plan

#### 7.1 TVA's Mission and TVA's Strategic Plan

TVA's roles are described by its mission. The mission serves as TVA's value proposition to the Tennessee Valley and is best defined through its three interrelated parts - Energy, the Environment, and Economic Development.

This mission is TVA's unique "reason for being" and the primary focus of its core business endeavors. It provides the strategic context within which all internal processes and objectives are defined and prioritized.

The four priority areas identified in the TVA Strategic Plan focus on the general steps TVA must take in order to preserve its core mission and to ensure its financial viability in a more competitive market.

#### 7.2 Translating TVA's Strategic Plan into Operational Terms

The mission and strategic objectives must be translated into operational terms so that the actions of management and employees can be supportive and aligned. TVA's critical success factors are the first step in this translation. They define the key factors and capabilities needed to generate sustainable performance consistent with the business themes implied by the mission and the priorities identified by the Strategic Plan. Performance goals identify specific, tangible objectives against which achievement can be measured. As illustrated in Exhibit 1, we develop a strategy in the context of the mission, map the strategy into operational initiatives, and ultimately develop performance plans for each part of the organization and scorecards for measuring success.

TVA follows the five Principles of a Strategy-Focused Organization<sup>1</sup> to implement its strategy throughout the operations of the organization.

The five principles have been successfully used by both public and private sectors and are defined as follows:

- 1. <u>Mobilize the organization through visible, executive leadership</u>. The TVA management approves the Strategic Plan, performance plans, budgets, and performance targets. Executive leadership endorses the strategic plan and takes responsibility for ensuring its operational implementation.
- Translate the strategy into operational terms. A key vehicle for translating TVA's strategy
  into operational terms is TVA's Leadership Standard, shown in Exhibit 2. The Leadership
  Standard translates strategy into operational terms by identifying TVA-level Strategic
  Objectives and Critical Success factors.
- 3. <u>Align the organization around the strategy</u>. TVA achieves strategy alignment by developing a balanced scorecard, which defines measurable corporate level and ultimate business-unit goals consistent with the Strategic Plan.
- 4. <u>Motivate to make strategy everyone's job</u>. Strategic awareness is created by "line of sight" mapping aligning individual performance goals with critical success factors and by TVA's Winning Performance Plan which ties incentive compensation to the achievement of goals.

<sup>1</sup> Robert S. Kaplan and David P. Norton, <u>The Strategy-Focused Organization</u>, Harvard Business School Press, Cambridge, Massachusetts, 2000.

5. Govern to make strategy a continual process. Scorecards for TVA, the strategic business units and business units are updated monthly as described in the following section.

#### 7.3 Annual Goals, Long Term Goals and TVA's Strategic Plan

Developing corporate short-term and long-term plans are key to achieving the goals outlined in the Strategic Plan. These plans include:

- Shorter Term (1-3 Year) Plans
  - Power Supply Plan (monthly updates based on revised market forecasts)
  - Strategic Business Unit Performance Plans (3-year outlook with Quarterly reviews)
- Longer Term (5-20 Years) Plans
  - Power Supply Plan (20-year forecast with plan updates twice annually)
  - Financial Outlook and Risk Management Plans (20-year forecast)
  - Capital Project Plans (5-year outlook)

Quarterly Performance Planning meetings are held with TVA's President and COO and executive management. The strategic issues, the scorecard and financial outlook are tracked and reviewed.

### 8.0 Program Evaluations - Tracking Progress Against The Goals

#### 8.1 TVA Inducted into the Scorecard Hall of Fame

TVA has been named to the global Balanced Scorecard Hall of Fame for achieving exemplary performance results with its Winning Performance Balanced Scorecard program.

Balanced Scorecard Collaborative, Incorporated, (BSC) created the Hall of Fame to publicly acknowledge the results of organizations that implement balanced scorecards to create a strategy-focused organization.

BSC President David Norton and BSC's Robert Kaplan developed the Balanced Scorecard concept in 1992. BSC says the concept has been implemented in thousands of corporations, organizations, and government agencies worldwide. Based on the premise that "measurement motivates," BSC says the scorecard program is designed to put strategy at the center of the management process, allowing organizations to implement strategies rapidly and reliably.

Other Balanced Scorecard Hall of Fame organizations include the U.S. Army, the City of Charlotte, Hilton Hotels, UPS, Wendy's International, and the University of California at San Diego.

#### 8.2 The Winning Performance Process

TVA measures its success in achieving all of its strategic objectives. Therefore, in addition to the Strategic Plan's four areas of emphasis, the Scorecard is balanced with measures that represent other dimensions of performance. The Winning Performance program keeps TVA focused on the Strategic Objectives: it identifies the things that must be accomplished to be successful, measures and tracks our performance in these areas, and provides the incentives and feedback to employees to see the direct connection. All employees are involved in Winning Performance and are able to see how his or her day-to-day performance contributes to TVA's performance and success.

Employees can see how their work contributes to the direction set by their organization's performance plan and how that contributes to TVA's overall successful implementation of the agency's strategy. Additionally, line of sight for employees is from their individual performance objectives, developed as a part of the Integrated Performance Management process, to TVA's Strategic Objectives and Critical Success Factors.

#### 8.3 TVA's Balanced Scorecard

While the Strategic Objectives identify what TVA must accomplish, the Critical Success Factors identify what TVA must do in order to achieve the Strategic Objectives. The critical success factors are defined within the four dimensions of TVA's Balanced Scorecard, which are (1) Customer, (2) Financial, (3) Operations, and (4) People. In turn, the performance measures are also defined within the same four dimensions. The performance measures on the TVA Balanced Scorecard are used to track overall TVA, Strategic Business Unit, and Business Unit levels of performance. The 2005 Scorecard measures were the first to be aligned with the 2004 Strategic Plan.

Performance is monitored on each of the measures monthly, and the scorecards are updated to reflect the results. These updates are available to employees through their organizations, in the monthly newsletter *Inside TVA*, and on the internal Winning Performance Website.

The Scorecard measures are reviewed and adjusted annually to reflect annual operating plans. Changes to the measures are made to reflect changes in priorities to improve TVA's performance. Additionally, the scorecard is designed to drive behavior that will result in improved performance. If a measure is not driving the right behavior, then it is changed.

TVA's scorecard, with its performance measures, clearly demonstrates that no one single organizational unit has complete responsibility for implementing strategy. The Balanced Scorecard provides a powerful process to formulate comprehensive integrated solutions.

#### 8.4 Results

The performance indicators support multiple goals and strategic objectives. The most challenging aspect of establishing the performance targets, however, is that individual indicators cannot be set in isolation – achieving the right balance of all performance targets is critical to TVA's overall success.

For example, a number of performance indicators support the achievement of the objective to "reduce the delivered cost of power." All else being equal, reducing O&M costs will help reduce the cost of power. But if we set the O&M target too low, it could jeopardize our ability to maintain reliability, which would, in turn, reduce customer satisfaction.

A similar example is the objective to provide affordable, reliable power. All else being equal, the lower the price of power, the higher customer satisfaction will be. But if we set prices too low, we could have insufficient revenue to cover costs, jeopardizing our ability to achieve two other goals: to reduce TFOs and to maintain reliability.

Given this general description of how performance targets must be managed simultaneously, the individual performance indicators on the TVA-wide scorecard are calculated as follows:

- (1) Net Cash Flow = Total cash flows from operating activities (excluding energy prepayments and changes in short-term investments) - cash used in investing activities.
- (2) Financial Strength/Reduction in TFO = Change in TFOs including statutory debt, combustion-turbine lease obligations, prepaid energy obligations, and QTE (qualified technological equipment) leases.
- (3) Productivity = Delivered generation (in kWhs) divided by Total Labor Cost (including both TVA and contract labor) (in dollars)
- (4) Customer Impact = 100% \* [50% \* Connection Point Interruptions (target/actual) + 50% \* Customer Satisfaction Survey (actual/target)]

- (5) Economic development index is a composite index, calculated as the sum of the following measures:
  - 0.50 x (actual jobs added or retained/target job additions) +
  - 0.25 x (actual capital investment leveraged/target capital investment leveraged) +
  - 0.25 x (actual jobs impact/target jobs impact)
- (6) Asset Availability = (actual GWh of generation available divided by the planned GWh available) x 100
- (7) Environmental Impact Index is also a composite index of 23 indicators grouped into 5 categories that are weighted as follows:

Air Quality40%Water Quality25%Land Impacts10%Waste Production15%Energy Consumption10%

(8) Safe Workplace = All Injury Rate, calculated as follows:

Recordable Injury Rate x 200,000

Hours worked during time period

NOTE: Hearing events are reported to OSHA as recordable injuries, but will be excluded from the TVA Winning Performance Safe Workplace Indicator. Hearing loss is an occupation illness, not a typical recordable workplace safety event.

200,000 = 100 employees working 40 hours/week for 50 weeks/year

#### 8.5 COO and SBU Level Performance Indicator Definitions (Exhibit 3)

(1) COO Net Generation (billion kWh)

The total electric energy produced by the generating units measured at the generator terminals less energy consumed for the generating station use.

Formula = Gross Electrical Generation - Station Service Use.

(2) TVAN Contribution to Delivered Cost of Power (mills/kWh)

Formula = All Non-Fuel Expense (less any approved adjustments) + Fuel Expense divided by Net Generation.

(3) TVAN INPO Performance Index (%)

This indicator is a weighted combination of INPO's nine overall performance indicators. Each element is calculated based on a standard industry definition. The product of each calculation is given a weighted score with the maximum obtainable being 100 points.

(4) FPG Contribution to Delivered Cost of Power (mills/kWh)

O&M Expense per kilowatt-hour of fossil (coal-fired) generation. Fossil production expense includes plant base & outage, O&M projects, reagents, yard and central office. Fuel expense includes coal and fuel handling. Excludes combustion turbines.

Formula = Non-outage O&M + Outage O&M + Fuel Expense / Net kWh Generation

(5) FPG Equivalent Forced Outage Rate (EFOR) (%)

This is an indictor of unit reliability. The percentage of generation lost due to forced outages and forced deratings.

Formula =  $[(FOH \times NDC) + MWhL]/[(FOH + SH) \times NDC] \times 100$ 

Where:

FOH = Forced Outage Hours

SH = Service Hours

NDC = Winter Net Dependable CapacityMWhL = MWh Losses during to forced derating

(6) PSO Connection Point Interruption (Rate) (Interruptions per Delivery Point)

CPI measures reliability from our customers' perspective. It tracks interruptions of power, including momentary, at customer connection points caused by the transmission system.

Formula = Number of Interruptions / Number of Connection Points

(7) PSO Load Not Served (minutes)

TVA load not served expressed in system minutes.

Formula = (% of Total Load Not Served) X (Number of Minutes in the Period)

(8) PSO Transmission Expense per Total Energy Delivery

Operating cost for the transmission system. Expressed as a year-to-date cost in mills per kWh sold.

Formula = Total TVA Transmission Expense / kWh Delivered

(9) RSO&E (River System Operations and Environment) Hydro Equivalent Forced Outage Rate (EFOR) (%)

EFOR = % = [(FOH \* NDC) / (FOH \* SH) \* NDC)] X 100

FOH = Forced Outage Hours, NDC = Net Dependable Capacity, SH = Service Hours

(10) RSO&E Flood Storage Availability (%)

Formula = (11\* (% of project days when each individual reservoir elevation is within one foot of flood guide levels) + % of project days total flood storage allocation above Chattanooga is 97% or greater)/12).

(11) RSO&E Days Navigable Waterway is Available from Knoxville, TN to Paducah, KY (days)

Formula = (Number of days in a year) - (Days river closed to commercial barge traffic)

(12) RSO&E Land and Water Stewardship (points) (Replaces RSOE Shoreline Management Performance (%) in FY 2006)

Each of the four components of this indicator addresses land or water stewardship activities of interest to TVA's stakeholders.

Formula = Water Quality Objectives Completed points + Shoreline Restored points + Resource Management Completed Points + Recreation Projects Completed points = Total Index Score.

# 9.0 Key Factors, External to TVA, that Could Significantly Affect the Achievement of General Goals

Given the long lead times needed to build new generation and transmission facilities, the electricity business is inherently subject to forecast error, and planning under uncertainty is the norm, not the exception. Normal planning uncertainties include those associated with projections about the following:

- Growth in the regional economy and its impact on electricity demand.
- Changes in the cost of fuel used to generate electricity.
- Changes in laws and regulations, particularly those related to environmental compliance, reliability, and security.
- Technological change.
- Changes in market interest rates.

In addition to these normal uncertainties in electric power planning, the electric utility industry is continuing to evolve in ways that could have wide-ranging impacts on TVA, the way it achieves its mission, and its ability to achieve the goals outlined in the Strategic Plan. There is great uncertainty about when legislation will be enacted that amends laws restricting competition in the Tennessee Valley, for example. Given the amount of work to be done to prepare for a more competitive market, the potential magnitude of change in the industry, and the high potential for significant forecast error, TVA will update its Strategic Plan and corresponding Annual Performance Plans as more information becomes available.

# Exhibit 1 - TVA Winning Performance FY 2006 Balanced Scorecard

	inning Performance 5 TVA Balanced Scorecard	2						E E	
			Target	Actual	Target	Actual	Target	Target	
		<u>Weight</u>	<u>2004</u>	<u>2004</u>	<u>2005</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	
Fir	nancial								
•	Net Cash Flow (Replaces O&M Costs in 06)	20%	N/A	N/A	N/A	N/A	394	TBD	
•	Financial Strength/Reduction in TFO	15%	225	278	225	301	340	529	
•	Productivity *	10%	147.8	156.1	153.7	160.9	91.2	TBD	
Cus	stomer								
•	Customer Impact **	10%	N/A	N/A	100	107	100	100	
•	<b>Economic Development</b>	10%	100	120	100	123	100	100	
Ope	erations								
•	Asset Availability	15%	98	101	98	102	100	100	
•	Environmental Impact Index***	10%	98	81	78	55	67	60	
Ped	ple								
•	Safe Workplace ****	10%	2.41	2.33	2.12	1.82	1.82	TBD	

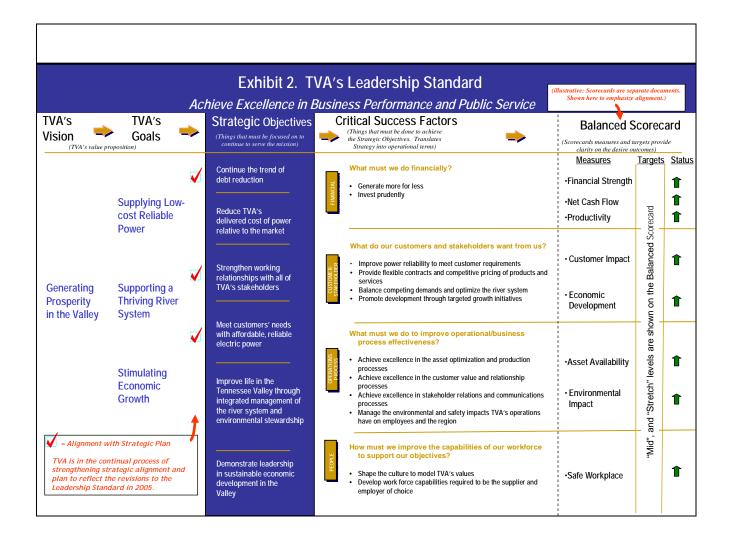
<sup>\*</sup> Productivity formula revised for FY06. Denominator changed from planned to delivered generation in (kWhs).

<sup>\*\*</sup>Formerly Customer Satisfaction which utilized a different set of criteria.

<sup>\*\*\*</sup>FY 2006 and FY 2006 targets are based on a composite of 23 elements.

<sup>\*\*\*\*</sup>Hearing events are excluded. Any TVA employee or staff augmentation contractor fatality or permanent total disability will prevent payout for this indicator at the TVA level as well as the affected SBU/BU.

## **Exhibit 2. TVA's Leadership Standard**



# Exhibit 3. COO/SBU Level Performance Indicators - FY 2007

COO Organization		PERFORMANCE INDICATORS	FY 04 Target	FY 04 Actual	FY 05 Target	FY 05 Actual	FY 06 Target	FY 07 Target
coo	1.	Net Electric Generation	157.98	154.84	158.87	159.89	160.60	168.26
TVAN	2.	Contribution to Delivered Cost of Power (mills/kWh)	13.97	13.63	15.02	14.47	13.69	14.05
	3.	INPO Performance Index	89.8	88.8	94.4	85.3	97.5	96.5
FPG	4.	Contribution to Delivered Cost of Power (mills/kWh) (Excludes CTs)	20.42	20.72	21.00	22.12	22.32	24.42
	5.	Equivalent Forced Outage Rate (EFOR)	8.2	7.5	7.4	4.6	6.3	6.0
PSO	6.	Connection Point Interruptions (Interruptions Per Delivery Point)	.90	.88	.89	.79	.89	.88
	7.	Load Not Served (minutes)	4.22	6.19	6.00	3.34	5.20	5.20
	8.	Transmission Expense per Total Energy Delivery (mills/kWh)	.72	.72	.80	.80	.84	.81
RSO&E	9.	Hydro EFOR - Total System (%)	1.60	1.56	1.60	1.70	1.60	1.60
	10.	Flood Storage Availability					70.0	70.0
	11.	Days Navigable Waterway is Available from Knoxville, TN to Paducah, KY (Days)	345.0	345.3	357.0	352.2	332.0	355.0
	12.	Land and Water Stewardship (Points) (Replaces Shoreline Management Performance (%) in FY 2006)					100.0	100.0