



TENNESSEE VALLEY AUTHORITY

# 2008 Environmental Policy



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## The TVA Board

**CHAIRMAN WILLIAM SANSOM** of Knoxville, Tennessee, is chairman and chief executive officer of The H.T. Hackney Co., and has held that position since 1983. Hackney is a diversified company involved in wholesale grocery, gas and oil, and furniture manufacturing.

**DENNIS BOTTORFF** of Nashville, Tennessee, serves as chairman and partner of Council Ventures, a venture capital firm. He was chairman of AmSouth Bancorporation until his retirement in 2001 and previously was chief executive officer of First American Bank.

**DON DEPRIEST** of Columbus, Mississippi, is chairman of a venture capital firm headquartered in Alexandria, Virginia, that has founded or invested in such companies as American Telecasting, now merged with Sprint. His Charisma Communications Corp. was a pioneer in the cellular phone business. He previously chaired the Columbus, Mississippi, Utilities Commission.

**MIKE DUNCAN** of Inez, Kentucky, is chairman, chief executive officer, and director of Community Holding Co.; chairman, CEO, and director of Inez Deposit Bank; and chairman of the Republican

National Committee. He is a director of the Regional Center for Rural Development.

**THOMAS GILLILAND** of Blairsville, Georgia, recently retired as executive vice president, general counsel, and secretary of United Community Banks Inc. He is a former chief of staff to Georgia Lt. Gov. Pierre Howard, and he served as chairman of the Stone Mountain Authority under Georgia governors Roy Barnes and Sonny Perdue.

**SKILA HARRIS** of Washington, D.C., is a native of Bowling Green, Kentucky, and served as a full-time TVA director from November 1999 through March 2006. She previously held positions in the U.S. Department of Energy, the White House, and energy-management and engineering-consulting firms.

**HOWARD THRAILKILL** of Huntsville, Alabama, recently retired as president and chief operating officer of Adtran, Inc., in Huntsville, which supplies equipment for telecommunications service providers and corporate end-users. Previously, he was president and chief executive officer of Floating Point Systems.



## Message from the CEO

### Stewardship of the Tennessee Valley

We are very much aware of the impact that the Tennessee Valley Authority's operations have on the environment, and we are working in partnership with others to further the region's environmental quality. In fulfilling its historic mission, TVA has contributed to the region's economic progress by meeting an ever-increasing demand for electricity while significantly reducing its impact on the environment. Yet, we recognize that greater challenges lie ahead to meet higher environmental standards and ensure the finite water and land resources under our stewardship are available for future generations.

The annual demand for electricity in the TVA service region is forecast to grow more than the national average. To offset the impact of meeting this demand, we are increasing our efforts in energy efficiency to reduce demand growth, investing in lower-carbon generating sources for meeting any additional growth, and lowering emissions from our current generating plants. This approach will help us improve performance and be proactive in our environmental stewardship responsibilities, while meeting the demand for more power at an affordable cost. However, future decisions to take further actions in these areas could put an upward pressure on power rates.

This policy sets out environmental objectives that will help us make decisions about our business and identifies areas that will allow TVA to produce cleaner and still-affordable electricity and provide environmental leadership in partnership with our stakeholders. We are establishing this policy because I, and all the people at TVA, appreciate the opportunity to provide cleaner power to you and your family now and in the generations to come.

Tom Kilgore  
President and Chief Executive Officer

CHAPTER 1

# Environmental Policy

## BACKGROUND

As stated in the 2007 TVA Strategic Plan, “TVA will be proactive in addressing environmental concerns, including those related to global climate change.” This Environmental Policy provides board-level guiding principles to successfully lead TVA to reduce its environmental impact while continuing to provide reliable and competitively priced power to the Valley. There is a growing recognition of the environmental and economic need for an increased emphasis on actions that support sustainable initiatives to most effectively meet the three dimensions of the TVA mission. In the Strategic Plan, about half of the identified strategic objectives and critical success factors relate directly to TVA’s environmental-related activities and policy-making. Following the release of the Strategic Plan, the board asked for the development of an integrated environmental policy to outline objectives and critical success factors across the multiple areas of TVA’s activities. The policy also addresses TVA’s response to the uncertain future of legislation on greenhouse gases (GHGs), including carbon, and the scarcity of available mitigating technologies in a carbon-constrained future.

### ENVIRONMENTAL POLICY

**TVA’s overarching Environmental Policy objective is to provide cleaner, reliable, and still-affordable energy, support sustainable economic growth in the Tennessee Valley, and engage in proactive environmental stewardship in a balanced and ecologically sound manner.**

In this context, the Environmental Policy directly aligns with the threefold TVA mission of Energy, Economic Development, and Environment, and as shown in the center of Exhibit 1, accents and integrates environmental leadership into all aspects of the TVA mission.

The Environmental Policy itself is not intended to serve as TVA’s response to future environmental regulations, nor is it intended to outline a specific regulatory forecast for planning purposes. Rather, the policy establishes an overarching framework to guide decision-making and future strategic development. The board of directors will review the Environmental Policy every two years. More frequent reviews may be needed to respond to significant market and regulatory changes and ensure alignment with TVA’s strategic priorities.

### EXHIBIT 1

Overall Environmental Policy Alignment With TVA’s Mission



### Cleaner, reliable, and still-affordable energy

TVA has an enduring responsibility to deliver reliable and affordable power to the residents and businesses in the Tennessee Valley. We have made investments to comply with environmental regulations in an efficient and affordable manner. We recognize the challenge ahead to achieve continuous improvements to make our generation portfolio cleaner while still meeting our commitment to a reliable and affordable energy supply.

### Sustainable economic development

Growth is an important component of maintaining the economic vitality of the Tennessee Valley, and TVA is committed to continued leadership in economic

development. We recognize unplanned growth can place great demands on all of our resources and lead to outcomes that can erode the quality of life within the Tennessee Valley. We believe the solution lies in achieving sustainable community and economic growth while considering environmental impacts.

#### **Proactive environmental stewardship**

Looking forward, we see the magnitude of the environmental challenges growing larger and requiring increasing innovation and leadership to find practical, effective, and affordable answers to our stewardship challenges. To meet the environmental challenges of the 21st century and beyond, we must be proactive in our commitment to provide both affordable energy and environmental stewardship. We must work together to reduce the “footprint” we all impose upon the environment.

#### **GUIDING PRINCIPLES**

TVA will continue to integrate responsible environmental practices into its business operations by establishing goals, measuring progress, and reporting performance through a comprehensive environmental management system. Employees are trained on their environmental responsibilities and factor environmental considerations into business decisions. TVA remains committed to complying with environmental laws and regulations, with a goal of continuous improvement.

#### **Climate Change Mitigation**

TVA plans to actively reduce its carbon emissions through cleaner energy options and energy efficiency initiatives.

#### **Air Quality Improvement**

TVA improves regional air quality by installing emission control equipment on existing generation and planning for cleaner future energy options.

#### **Water Resource Protection and Improvement**

TVA manages an integrated river system for multiple uses while striving to provide clean and sufficient water for the Valley’s needs.

#### **Waste Minimization**

TVA surveys all aspects of its operational and business functions to implement ways to reduce waste and increase recycling.

#### **Sustainable Land Use**

TVA manages public lands for multiple benefits, striving to keep them in good environmental health while balancing the need for sustainable development.

#### **Natural Resource Management**

TVA protects natural resources while providing recreational opportunities across the Valley.

#### **POLICY DEVELOPMENT**

The development of the Environmental Policy followed four phases. The first phase identified the key environmental focus areas and established an overarching framework for the policy. The evaluations performed in the second phase analyzed market forces and established a range of possible regulatory outcomes, highlighting the potential impacts of both on TVA. The third phase defined a series of environmental objectives and identified the critical success factors necessary to meet those objectives. The fourth phase asked for public comments and incorporated those comments into the final document, subject to approval of the policy by the TVA Board of Directors.

#### **STAKEHOLDER INVOLVEMENT**

TVA’s evaluation of stakeholders’ suggestions and feedback revealed four emerging themes they believe TVA should emphasize:

#### **Leadership**

TVA must take a leadership position in areas of its core competency such as nuclear power and hydroelectric power.

#### **Partnerships**

TVA should expand partnership opportunities with stakeholders, such as local, federal, and state institutions, in specific focus areas.

#### **Coordination**

TVA should leverage its credibility and position as a federal agency to foster coordination among multiple parties to achieve common goals.

#### **Commitment**

TVA should clearly articulate its environmental commitment, preferred strategies for least-cost solutions, and associated performance metrics.

## CHAPTER 2

# Environmental Objectives and Critical Success Factors

The Environmental Policy is organized into six environmental areas that encompass the variety of issues faced by TVA. These areas are climate change mitigation, air quality improvement, water resource protection and improvement, waste minimization, sustainable land use, and natural resource management.



### CLIMATE CHANGE MITIGATION

#### Environmental Objective

TVA will stop the growth in volume of emissions and reduce the rate of carbon emissions by 2020 by supporting a full slate of reliable, affordable, lower-carbon-dioxide (CO<sub>2</sub>) energy-supply opportunities and energy efficiency.

#### Critical Success Factors

- Reduce load growth by at least one-fourth over five years, through energy efficiency and demand-side management initiatives.
- Meet the remaining load growth through lower-carbon-emitting energy sources such as affordable renewables, nuclear, and combined heat and power.
- Improve the efficiency of the transmission network, including the use of technologies such as Smart Grid, which helps achieve environmental benefits through improved communication and remote control, making the system more responsive in real time.
- Strive to reduce the rate of carbon and other GHG emissions from the existing generation fleet.
- Use affordable regional resources to comply with renewable and clean-energy standards and mandates, limiting the use of purchased compliance credits.
- Invest in a technology portfolio that supports low- or zero-carbon emitting generation options and electricity grid infrastructure to support a lower-carbon economy.
- Promote public education and outreach to encourage energy efficiency, clean end-user energy generation, premium green-energy offerings, and regional climate change mitigation opportunities.



### AIR QUALITY IMPROVEMENT

#### Environmental Objective

TVA will continue efforts to reduce sulfur-dioxide, nitrogen-oxide, mercury, and particulate emissions and engage regional and national stakeholders to develop better ways to understand, monitor, and improve regional air quality, including all regulated air emissions.

#### Critical Success Factors

- Reduce emissions across the system by continuing to install emission reduction equipment and new technology to control over 80 percent of fossil generation in the next 10 years.
- Allow for earlier retirement of coal-fired plants if energy efficiency, renewables, and clean-energy gains exceed targets.
- Elevate air quality improvement as a critical component in evaluating future capacity-planning decisions.
- Promote open exchange and collaboration with others to improve the industry's air quality control technology and modeling.





## WATER RESOURCE PROTECTION AND IMPROVEMENT

### Environmental Objective

TVA will improve reservoir and stream-water quality, reduce the impact of its operations, and leverage alliances with local and regional stakeholders to promote water conservation.

### Critical Success Factors

- Mitigate TVA's impact on aquatic systems while balancing thermal cooling needs with consumptive use.
- Demonstrate a sustainable reduction of consumptive use of water at TVA's metered facilities.
- Integrate the impacts of water quality and quantity into the long-range planning and decision-making process.
- Maintain river system infrastructure for safe operation while operating in compliance with the operating policy from TVA's Reservoir Operations Study (ROS).
- Promote the integration of energy efficiency and water conservation into community planning and building construction.
- Collaborate in community outreach and partnerships through voluntary demonstrations of the efficient use of water resources and protection of water quality.



## SUSTAINABLE LAND USE

### Environmental Objective

TVA will strive to maintain the lands under its management in good environmental health, balancing their multiple uses, and will improve its land transaction processes to support sustainable development.

### Critical Success Factors

- Actively manage TVA lands to meet the desired conditions for their purpose as defined in the Reservoir Land Management Plans.
- Develop a policy for managing TVA's mineral rights that considers the potential environmental impacts.
- Improve reservoir shoreline conditions through collaborative partnership initiatives and balance the multiple uses of the reservoirs in accordance with TVA's Land Policy and Shoreline Management Policy.
- Manage TVA lands, mineral rights, and shoreline access to better achieve environmental commitments while meeting the needs for recreation, residential access, and economic development.



## WASTE MINIMIZATION

### Environmental Objective

TVA will drive increased sustainability in existing compliance programs and waste management practices by focusing on waste avoidance, minimizing waste generation, and increasing recycling to reduce environmental impacts.

### Critical Success Factors

- Reduce the waste footprint of all TVA facilities by pursuing operational and business practices to decrease waste generation and improve recycling.
- Increase the percentage of recycled coal-combustion waste.
- Minimize low-level nuclear waste and contribute to efforts by industry groups and agencies to formulate innovative and sustainable solutions for the management of spent nuclear fuel waste.
- Further reduce the risk of polychlorinated biphenyl (PCB) releases to the environment over time by eliminating use of PCBs in large electrical equipment.



## NATURAL RESOURCE MANAGEMENT

### Environmental Objective

TVA will be a leader in natural resource management through the implementation of sustainable practices in dispersed recreation while balancing the protection of cultural, heritage, and ecological resources.

### Critical Success Factors

- Allow for properly managed, eco-friendly dispersed recreation while balancing the protection of biological, cultural, and heritage resources.
- Promote ecological diversity and wildlife habitats on TVA lands through partnerships and voluntary initiatives.
- Increase the level of environmental quality and management consistency among TVA-managed and -leased recreation facilities.

**CLIMATE CHANGE MITIGATION**

Greenhouse gases are produced by many natural and industrial processes. In order of abundance, the top four gases are water vapor, CO<sub>2</sub>, methane, and nitrous oxides. GHGs are important to maintaining the temperature on the earth. Over the past decade, the impact of man-made GHG emissions has been the focus of much scientific, business, and policy debate in the United States and abroad. Man-made CO<sub>2</sub> originates primarily from fossil-fuel combustion for transportation, electricity generation, and industrial processes, accounting for more than 80 percent of the nation's total GHG emissions. Forty percent of the nation's CO<sub>2</sub> emissions can be directly attributed to electricity generation.

TVA is a large emitter in the power sector due to the size of its fossil generation portfolio. However, about 30 percent of TVA's current generation comes from non-carbon-emitting sources — nuclear, hydropower, and renewables — and that figure is forecast to be over 50 percent by 2020.

TVA's generating portfolio emissions "intensity" (tons-of-CO<sub>2</sub>-per-megawatt-hour) is near the national average and considerably better than that of most utilities in the Southeast.

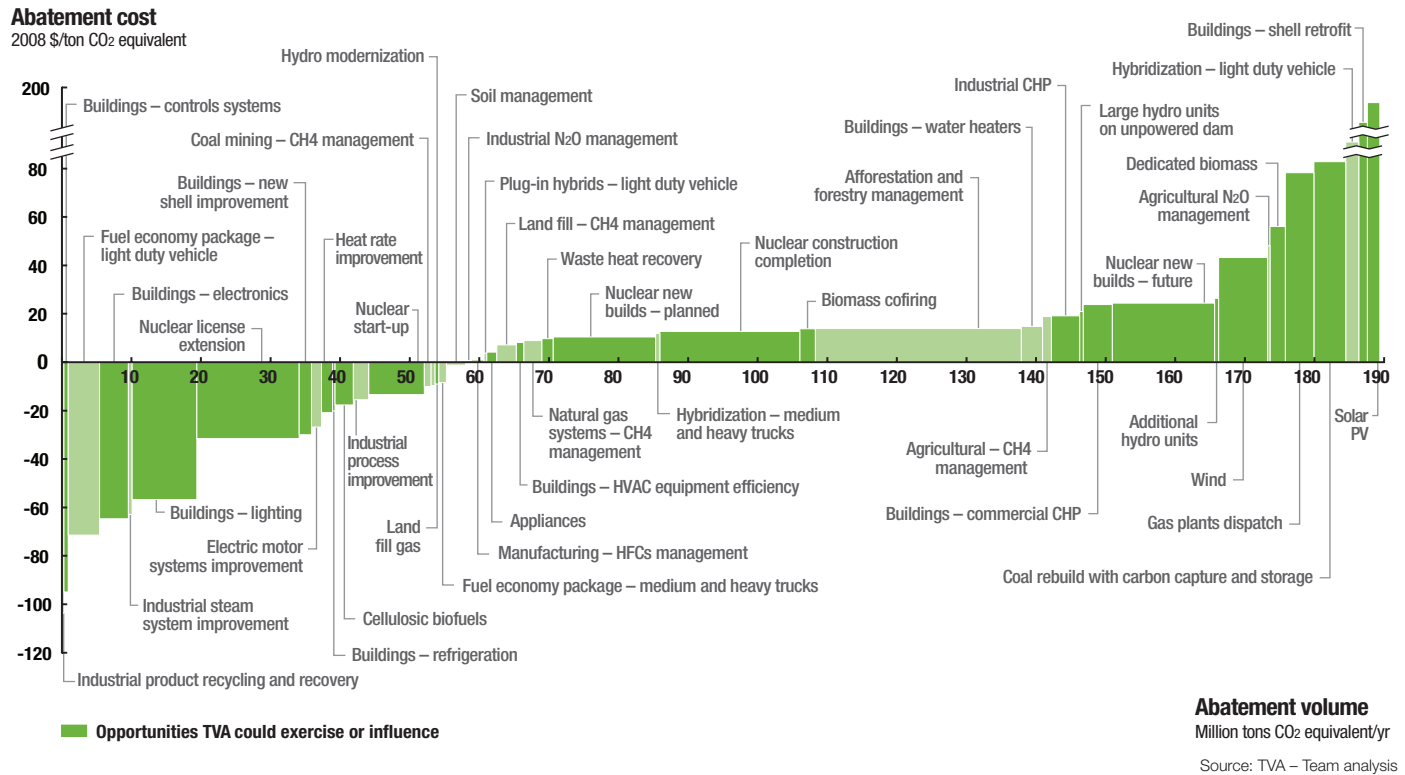
Legislation has been introduced in the United States Congress requiring reductions of GHG emissions, specifically focusing on CO<sub>2</sub>. If enacted, such legislation could result in significant additional costs for TVA. To prepare to respond to this issue, TVA has undertaken a study of the opportunities to reduce GHG emissions in the Valley. In order to understand the cost-effectiveness of TVA's available actions relative to others within the Valley economy, TVA has created a comprehensive catalog of specific opportunities to reduce GHGs and estimated the corresponding volumes and relative costs associated with each. Those opportunities for carbon abatement that are within TVA's control or influence are shown with dark-green bars. Preliminary output from this analysis is depicted in Exhibit 2 on the next page.





**EXHIBIT 2**

Tennessee Valley's Carbon Abatement Opportunities and TVA Opportunities (TVA shown as dark-green bars)



The abatement curve visualized in Exhibit 2 illustrates the range of actions the Valley can take to reduce carbon emissions, including non-CO<sub>2</sub> gases. Each bar denotes a single type of opportunity to reduce carbon emissions or increase carbon absorption. The width of the bar represents the total net annual emissions reduction that would result from pursuing the opportunity. The height of the bar highlights the cost of pursuing each option relative to the costs that would be incurred if the current practices were maintained. Sequencing the options from least cost to highest cost helps provide a sense of the relative priority of the abatement measures and can be used to identify the least-cost approach to achieving any targeted level of emissions reduction.

The shape of the curve warrants explanation. The societal costs associated with each measure can be positive or negative in the aggregate. The benefits received are spread over time to one or more beneficiaries who may be different from those making the initial investments. A “negative cost” implies that pursuing the related option will result in a net savings over the life cycle of the oppor-

tunity relative to what would be incurred in the business-as-usual case. These savings are frequently the result of reduced energy costs associated with improved energy efficiency. The positive cost options require an incremental expense to abate emissions above and beyond the business-as-usual case.



**Five key insights have emerged from this analysis that are of critical relevance to TVA's Environmental Policy:**

- A significant amount of energy-efficiency potential exists within the Valley and requires a corresponding level of investment to realize that potential.
- Nuclear power options available to TVA can provide significant abatement potential at a modest incremental cost.
- Compared to other regions, the Valley has a limited supply of renewable energy to support carbon and clean-energy objectives.
- Coal generation remains an important resource to meet TVA's mission to deliver low-cost power.
- Modern transmission and distribution grid technologies can help support the transition to a lower-carbon energy supply by improved real-time information and controls.

Given the potential for legislation that will require TVA to find ways to reduce GHG emissions – particularly carbon emissions – we must position TVA to address the challenge of operating in a carbon-constrained world. Specifically, TVA will continue to reduce the carbon intensity of its generating system and take advantage of lower-CO<sub>2</sub>-emitting energy sources consistent with maintaining a reliable and affordable energy supply. Technology innovations will be needed to address the intermittency of many renewable generation sources. TVA will target reducing load growth by at least one-fourth in five years through energy efficiency and demand response while meeting the remaining load growth through lower-carbon-emitting options.



**AIR QUALITY IMPROVEMENT**

TVA is a regional leader in the installation and operation of air emission control equipment through an aggressive investment of more than \$4.8 billion. This investment has reduced TVA's sulfur-dioxide emissions by about 83 percent since 1977, and lowered nitrogen-oxide emissions during the summer ozone season by 81 percent since 1995. As an additional benefit of these controls, mercury emissions also have been reduced. TVA's efforts have contributed to continued air quality improvement across the region. These improvements are important to the quality of life and economic sustainability in the Valley. The fundamentals of TVA's program focus on complying with air pollution control requirements, considering air-quality impacts on urban and environmentally sensitive areas, and supporting

stakeholder interests. TVA's Clean Air Program is based on a strategy of self-compliance that involves the installation of controls on fossil plants to achieve tangible air quality and health benefits for Valley citizens with a limited use of the allowance markets.

Despite these successes, work remains. EPA's Clean Air Interstate Rule, more-restrictive National Ambient Air Quality Standards, and future mercury and regional haze requirements will ensure that regional air quality continues to improve. In the ongoing effort to contribute to that improvement, TVA will continue to reduce its sulfur-dioxide, nitrogen-oxide, mercury, and particulate emissions. We will pursue this objective by continuing to invest in assets that



will measurably reduce emissions from fossil-fired plants and thereby improve air quality. This investment will reduce emissions across the system through the installation of emission reduction equipment and new technology to control over 80 percent of fossil generation in the next 10 years. It's possible

that, if energy efficiency efforts yield higher load reductions than forecast, we will have an opportunity to retire higher-emitting fossil plants earlier. In addition, TVA will continue to engage regional and national stakeholders to develop better ways to understand, monitor, and improve regional air quality.



## WATER RESOURCE PROTECTION AND IMPROVEMENT

TVA operates the Tennessee River System to provide a wide range of public benefits: year-round navigation, flood-damage reduction, affordable electricity, improved water quality, water supply, land use, and recreation.

In 2004, the TVA Board approved a new operating policy based on the results of the agency's Reservoir Operations Study. The policy maintains TVA's ability to meet its fundamental responsibilities for flood control, commercial navigation, and power production while protecting water quality and accommodating the increased demands created by recreational and residential growth. It shifts the focus of TVA's reservoir operations from achieving specific summer pool elevations on the reservoirs to managing the flow of water throughout the river system in an integrated way to support multiple demands.

TVA pursues its progressive management of water quality and water quantity impacts through the permitting of activities on and around TVA reservoirs; the collection, maintenance, and distribution of water quality information; targeted water quality improvement initiatives; and strategies to manage increased water demand.

The increasing demand for water due to residential, commercial, and industrial growth requires a focus on resource conservation in the Tennessee Valley region. In addition, chronic rainfall deficits can result in low water flows, which could lead to future constraints on power operations. Rapid growth coupled with the challenge of availability further amplifies the importance of balancing resource management activities for multiple, and often competing, uses across the Valley.



Facing these challenges, TVA will lead by example. TVA will demonstrate an efficient use of water in its operations and will collaborate and coordinate with internal and external stakeholders to protect and improve water quality and sufficiency, while maintaining an in-depth knowledge of changing conditions in the river system. TVA's goal is to mitigate its impact on aquatic systems while balancing thermal cooling needs with consumptive use. At the same time, TVA will continue to improve river system operations to balance diverse demands.



## WASTE MINIMIZATION

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TVA manages an array of different wastes, including municipal solid waste, wastewater, hazardous waste, low- and high-level nuclear waste, other regulated wastes (e.g., asbestos and PCBs), scrap metal, office waste, and coal-combustion waste, which includes fly ash, bottom ash, and gypsum. One of TVA's strengths is its waste management system and the day-to-day implementation of this system at the various facilities by trained environmental personnel. Employees help integrate waste-management expertise at every level of TVA to minimize the impact on Valley resources.

TVA has a strong focus on the use of coal-combustion waste, which comprises its single largest waste stream. Approximately 43 percent of this waste is recycled into

by-products. Similarly, TVA recycles the majority of its electronic waste and scrap metal. While focusing on compliance with waste requirements, TVA uses a team approach to seek out and implement further waste-minimization opportunities. In addition, the agency is collaborating with others to identify sustainable solutions for better management of nuclear waste.

TVA will reduce its waste footprint in regulated materials and increase the percentage of recycled coal-combustion waste. In this effort, TVA will augment its existing compliance programs and waste management practices by focusing on waste reduction at the source (in part through improved procurement practices), avoiding waste generation, and increasing recycling efforts (especially of municipal waste).



## SUSTAINABLE LAND USE

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TVA manages public lands for multiple benefits, including economic development, conservation, and recreation. TVA is the steward of 293,000 acres of public land and 11,000 miles of shoreline in the Valley along the Tennessee River. In addition, TVA maintains 293,000 acres of flowage easement rights, 258,000 acres of transmission rights-of-way, 35,000 acres of facility properties, and 159,000 acres of mineral rights.

When deciding the proper uses of TVA-managed lands and shoreline or acquiring properties for its operations, TVA, while ensuring compliance with appropriate laws and regulations, considers the effects of these activities on the environment.

Section 26a of the TVA Act gives TVA permitting jurisdiction over proposed construction in and along the Tennessee River and its tributaries. Under this jurisdiction, TVA has

the responsibility to address obstructions that might affect navigation, flood control, and public lands.

Increasing growth within the region necessitates a balance of resource conservation, sustainable economic development, and eco-friendly recreation. To demonstrate and promote best practices in sustainable land use, TVA intends to lead by example. It will maintain the public lands under its management in good environmental health to support multiple uses in meeting diverse stakeholder expectations. It will also improve its acquisition, development, and disposal of managed lands to support sustainable development in the Valley.

These efforts will align with TVA's Land Policy, approved by the TVA Board in November 2006, and its Shoreline Management Policy, approved by the board in June 1999.

These policies direct TVA to manage and balance the multiple uses of lands under its jurisdiction and use its environmental decision-making process to minimize the environmental liabilities and impacts and ensure compliance.

TVA will continue to actively manage its public lands to meet the desired conditions for their defined purpose, and it will also develop a policy for managing mineral rights that considers the potential environmental impacts.



## NATURAL RESOURCE MANAGEMENT

TVA manages natural resources in the Valley while providing for many types of recreational opportunities. The agency has set aside more than 181,000 acres of public land for natural resource management, which includes the enhancement of wildlife habitat and dispersed informal recreation. TVA also oversees and manages an additional 31,000 acres for sensitive resources. The guidelines for use of these sensitive land resources include restrictions on activities that might endanger significant cultural or natural features.

TVA has more archaeological sites per acre under its management than any other federal agency—over 10,000 archaeological sites have been identified on TVA-managed lands. Since 1976, TVA has maintained information on rare plants and animals, caves, and other environmentally sensitive resources in the 80,000-square-mile TVA service area.

In its approach to natural resource management, TVA will demonstrate leadership through the ecologically sound management of natural resources and the protection of cultural and heritage resources. TVA is committed to increasing the proportion of TVA-managed resources that meet the desired environmental conditions of sustainable recreation, ecological diversity, and cultural resource protection. More and more residents and visitors are enjoying the diverse, unique natural resources of the Valley by engaging in dispersed recreation activities such as hiking, bird watching, and fishing. An increase in outdoor activity has been shown to result not only in a healthier lifestyle but also a greater awareness of the importance of natural resource conservation. An increase in conservation practices by the public helps ensure the



unique and beautiful Valley resources will be preserved for the continued enjoyment of generations to come.

To support this objective, TVA will pursue collaboration and partnerships to improve the delivery of its natural resource management activities, while also increasing the effectiveness of dispersed public recreation and reducing the impact of human uses on the environment. TVA will allow for properly managed, eco-friendly dispersed recreation on the lands it manages while balancing that goal with the protection of biological, cultural, and heritage resources.

## CHAPTER 4

# Commitments

### COMMITMENTS TO OUR CUSTOMERS

In collaboration with our 159 distributors, TVA is committed to providing low-cost, reliable power to more than 8.8 million residents and businesses and 62 directly served large industrial and federal facilities in the seven states of the Tennessee Valley. TVA's new Environmental Policy, in accordance with the 2007 TVA Strategic Plan, emphasizes three issues that are important from its customers' perspective: maintaining affordable rates, expanding collaboration, outreach, and education, and furthering the Valley's quality of life.

#### Affordable rates

- TVA will strive to manage potential future rate increases for new generation and transmission construction by collaborating with distributors and customers to pursue lower-cost energy-efficiency and load-management options that may partially offset the need for capacity additions.
- For large commercial and industrial customers, TVA will continue to focus on rates as a principal measure of affordability and competitiveness when promoting cost-effective energy-efficiency and load-management programs.
- For residential and small commercial customers, TVA will emphasize the total bill impact by focusing on the combined effect of rate and consumption.

#### Collaboration, outreach, and education

- TVA will increase its focus on education and outreach to inform Valley residents on key issues, including energy efficiency and renewables, water conservation, and natural resource protection.

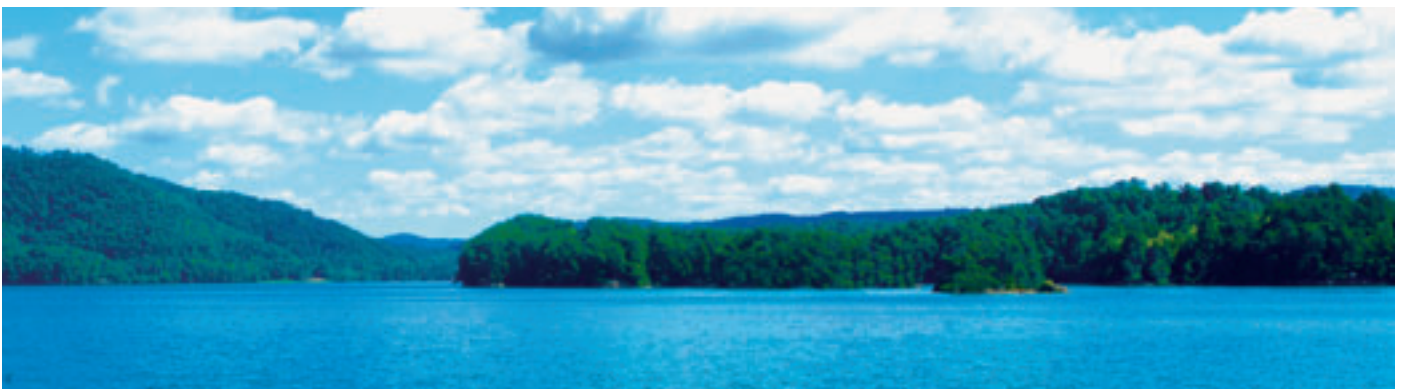
- TVA will collaborate with distributors and directly served customers to implement enabling technologies for clean-energy and energy-efficiency solutions.

#### Quality of life

- TVA will continue to promote an improved quality of life with an emphasis on the deployment of clean, low-carbon emissions technology in the Valley.
- TVA will consider the environmental footprint of industries recruited into the Valley.
- TVA will improve air quality and continue to promote the sustainable management of land, water, and natural resources.
- TVA will provide for the expansion of ecologically friendly recreation activities within the Valley.

### PERFORMANCE INDICATORS

TVA has an established set of metrics to monitor how well its performance fulfills the threefold TVA mission highlighted in the 2007 Strategic Plan, which outlines the policy level direction for TVA. Examples of these metrics are shown in Exhibit 3 on the next page. They include the metrics that are found in TVA's Strategic Plan, such as delivered cost of power, economic development index, and environmental performance, and additional ones associated with the Environmental Policy. This combined set of performance metrics establishes the successful translation of the TVA Environmental Policy into specific and measurable indicators that can be monitored for implementation of the policy. TVA will implement these metrics in an integrated approach to close the gap between the current level and desired improvement in environmental performance.

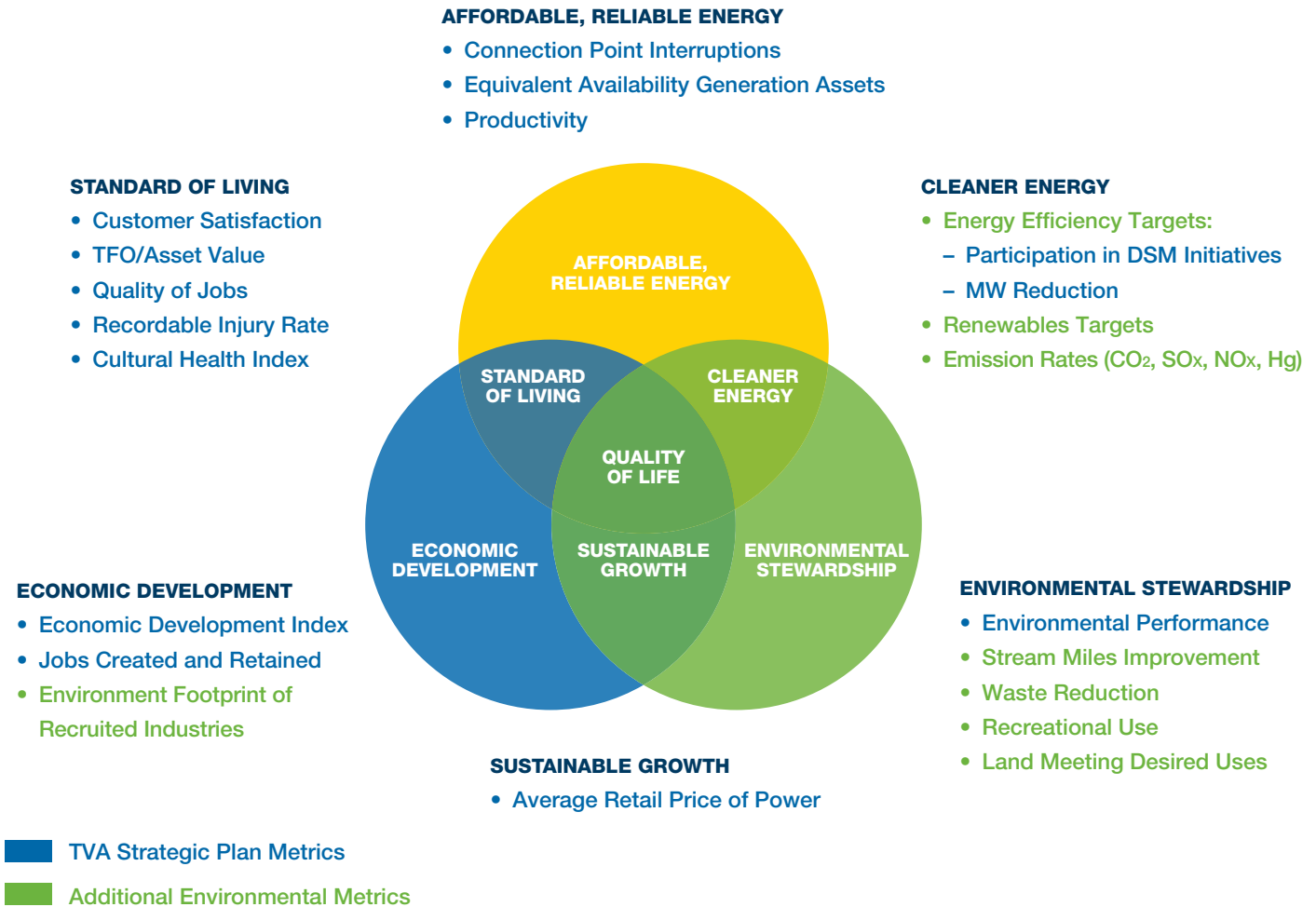


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**EXHIBIT 3**Aligning TVA's Mission With Environmental Commitments and Performance Measures

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The large circles represent the threefold TVA mission, while the intersections of the circles represent a higher quality of life realized through an integrated approach of pursuing cleaner energy, promoting sustainable growth, and providing proactive stewardship.



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## Online Resources

View this policy electronically at [www.tva.com/environment/policy.htm](http://www.tva.com/environment/policy.htm)

View the 2007 TVA strategic plan at [www.tva.gov/stratplan](http://www.tva.gov/stratplan)

View the results of the Reservoir Operations Study at [www.tva.gov/environment/reports/ros\\_eis/index.htm](http://www.tva.gov/environment/reports/ros_eis/index.htm)

View TVA's Land Management Policy at [www.tva.gov/river/landandshore/land\\_policy.htm](http://www.tva.gov/river/landandshore/land_policy.htm)

View TVA's Shoreline Management Policy at [www.tva.gov/river/landandshore/landuse\\_shore.htm](http://www.tva.gov/river/landandshore/landuse_shore.htm)

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