



TENNESSEE VALLEY AUTHORITY

DELIVERING *value* TO THE VALLEY



ANNUAL REPORT *2000*

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## Financial Highlights—Power Program

At September 30 or for the years ended September 30,  
as appropriate (*in millions*)

	2000	1999	Percent Change
<b>Summary Statements of Income</b>			
Operating revenues	\$ 6,762	\$ 6,595	3
Operating expenses	(5,019)	(4,926)	2
Operating income	1,743	1,669	4
Other income, net	17	10	NM
Interest expense, net	(1,736)	(1,777)	(2)
Cumulative effect of change in accounting principle	–	217	NM
<b>Net income</b>	<b>\$ 24</b>	<b>\$ 119</b>	<b>NM</b>
<b>Total assets</b>			
	<b>\$33,181</b>	\$ 33,386	(1)
Discount notes	\$ 1,274	\$ 982	30
Long-term debt, including current maturities	24,711	25,394	(3)
<b>Total indebtedness</b>	<b>\$ 25,985</b>	<b>\$ 26,376</b>	<b>(1)</b>
<b>Cash flows from operations</b>	<b>\$ 1,584</b>	\$ 1,431	11
<b>Capital expenditures</b>	<b>\$ 867</b>	\$ 829	5

## Power System Statistics

At September 30 or for the years ended September 30,  
as appropriate

	2000	1999	Percent Change
<b>System input (millions of kilowatt-hours)</b>			
System generation			
Hydro, including pumped storage	8,769	11,065	(21)
Fossil	95,271	91,630	4
Nuclear	46,921	44,514	5
Combustion turbine	1,032	1,025	1
Total net generation	151,993	148,234	3
Purchased	12,516	12,770	(2)
<b>Total system input</b>	<b>164,509</b>	<b>161,004</b>	<b>2</b>
<b>System output (millions of kilowatt-hours)</b>			
Sales			
Municipalities and cooperatives	125,991	122,880	3
Industries directly served	22,204	22,885	(3)
Federal agencies and other	11,376	10,190	12
Total sales	159,571	155,955	2
Other	1,062	1,232	(14)
Losses	3,876	3,817	2
<b>Total system output</b>	<b>164,509</b>	<b>161,004</b>	<b>2</b>
<b>Net winter dependable capacity (megawatts)</b>	<b>29,469</b>	28,502	3
<b>System peak load (megawatts)—summer</b>	<b>29,344</b>	28,295	4
<b>System peak load (megawatts)—winter</b>	<b>25,940</b>	26,388	(2)
<b>Annual load factor (percent)</b>	<b>60.2</b>	61.6	(2)
<b>Number of employees as of September 30</b>	<b>13,145</b>	13,322	(1)
<b>Percent net winter dependable capacity by fuel source</b>			
Fossil	51%	53%	(4)
Nuclear	19%	20%	(5)
Hydro	19%	19%	–
Combustion turbine	11%	8%	38

## CORPORATE PROFILE

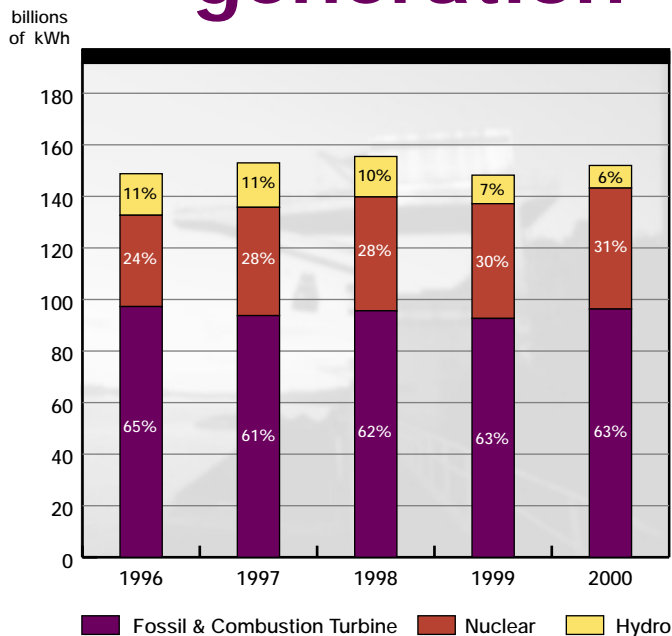
*overview*

The Tennessee Valley Authority (TVA) is the nation's largest public power system. Wholly owned by the U.S. government, TVA was established by Congress in 1933 primarily to provide flood control, navigation and agricultural and industrial development, and to promote the use of electric power in the Tennessee Valley region. TVA has been a strong presence in the region for more than 67 years, delivering value to the Valley economy by promoting economic growth, supplying low-cost, reliable power and supporting a thriving river system. As the nation's largest public power system, TVA delivers electricity to nearly eight million people in the Valley through 158 local power companies. TVA's most important contribution is keeping power rates competitive while providing multiple public benefits—power supply, flood control, navigation, land use, water quality and recreation.

TVA pays its own way by selling electricity to its customers throughout the Tennessee Valley. TVA does not use tax dollars for power operations and, unlike in other parts of the country, no tax dollars support TVA's integrated resource stewardship. Since 1959, when Congress made TVA's power program self-financing, TVA has paid the U.S. government an uninterrupted cash dividend at a market rate of interest on the government's initial \$1.4 billion investment. To date TVA's payments to the U.S. Treasury have totaled more than \$3 billion.



## ELECTRICITY

*generation*

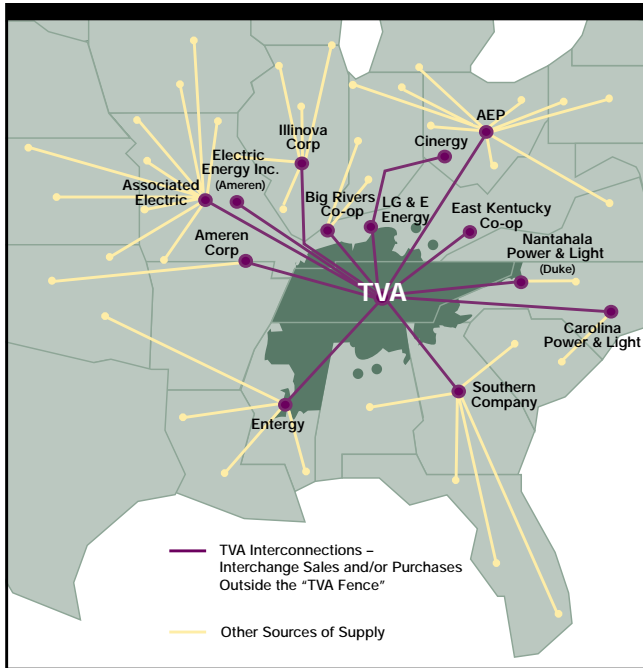
*TVA continues to meet growing power demand in the Tennessee Valley through a diverse, efficient generation mix.*

**Business Description**

- Nation's largest public power system
- 29,469 megawatts of capacity (net winter dependable)
- 11 fossil plants (59 units)
- 3 nuclear plants (5 units)
- 29 hydro plants (109 units)
- 4 combustion turbine plants (56 units)
- 1 pumped storage plant (4 units)
- Customers
  - 158 power distributors
  - 62 directly served customers
- 12 off-system sales utilities

## ELECTRICITY

## transmission



*Through its interconnections with many other systems, the TVA transmission system plays a key role in providing access to power from a large area.*

## Business Description

- Reliable under severe contingencies
- Well positioned for power transfers
- 17,000 miles of transmission line
- 130,000 transmission-line structures
- 850 individual interchange and delivery points
- 240,000 right-of-way acres
- 80,000-square-mile service area

## INTEGRATED RESOURCE

## stewardship



*TVA manages the public benefits of navigation, flood control, power supply, water quality, land use and recreation as an integrated system.*

## Benefits to the Valley in 2000

- Nation's fifth-largest river system
- 800 miles of commercially navigable waterway
- 52 million tons of goods shipped
- 35 dams for flood control
- \$173 million potential flood damage avoided
- 11,000 miles of public shoreline
- \$308 million in tax-equivalent payments to Valley states and counties
- \$770 million of capital investment in the Valley
- \$850 million TVA payroll
- 13,145 TVA employees
- \$13 million of economic development loan commitments to Valley businesses
- \$850 million spent with Valley firms for products and services

DELIVERING **value**  
*to the valley*

*“For TVA stakeholders, value means fulfilling TVA’s mission to be the leading resource management agency for the Valley and a catalyst for strong economic growth. For the electric utility industry, value means developing and sharing breakthroughs in energy technology and environmental protection that will benefit the entire nation.”*

—Craven Crowell,  
 Chairman, TVA Board of Directors

Electrification has been described as the greatest engineering achievement of the 20th century. TVA is continuing to lead the way in ensuring that electricity remains the best energy value of the 21st century.

What is value, and how does TVA value improve quality of life for the people it serves? For customers of TVA power, value means abundant, high-quality electricity that is competitively priced and reliably delivered by a company dedicated to the highest standards of customer service. For distributors of TVA power, value means continually improving TVA products and services to help the distributors and other businesses in the Tennessee Valley prosper and grow in rapidly changing markets.

For TVA stakeholders, value means fulfilling TVA’s mission to be the leading resource management agency for the Valley and a catalyst for strong economic growth. For those in the electric utility industry, value means developing and sharing innovative breakthroughs in energy technology and environmental protection that will benefit the entire nation.

In each of these areas, fiscal year 2000 saw TVA continue to provide value to the people it serves.

**Value in powering our regional economy**

Electricity is the fuel that powers our nation’s economy and enables a high quality of life. Since the price of electricity is part of the cost of virtually every product and service, continued economic growth depends on clean, dependable power that is competitively priced. TVA’s strengths as a reliable, low-cost producer are a significant factor in the unprecedented prosperity and low unemployment of the Tennessee Valley region. By producing power as economically as possible, TVA helps consumers meet their energy needs affordably and supports businesses across the Valley in pricing their products and services competitively.

Anticipating even greater energy demand in the future, TVA continues to make the capital investments necessary to ensure that customers will have the energy they need to run their homes and businesses efficiently. The summer of 2000, during which TVA again met new peak demands without service interruptions or power curtailments, demonstrated TVA’s ability to meet growing customer demand without disruption, thanks to the excellent performance of TVA’s power system. Our nuclear plants, in particular, have earned a reputation for excellence and continue to serve as a benchmark for nuclear programs around the country. The performance of TVA Nuclear mirrors the outstanding achievements of TVA’s hydro and fossil generating plants and our extensive transmission system.

Year in and year out, TVA’s excellent reliability minimizes energy interruptions that can reduce industrial production and idle Valley workers. TVA’s high-quality power assures a supply that consistently meets the increasingly strict technical

requirements of today's advanced electronic equipment. TVA's competitive pricing keeps energy costs low and enhances its customers' prospects for success in global markets. And TVA's commitment to continuous improvement is reflected in our responsiveness to customers and the continual adaptation of our products and services to better suit customers' needs.

**Value in managing our regional resources**

Besides being the nation's largest public power producer, TVA also provides value through its management of the Tennessee River system—the nation's fifth largest—by facilitating river transportation upon which thousands of jobs and millions of dollars in business depend. In fiscal year 2000 TVA made possible an estimated \$424 million in transportation benefits by giving Valley shippers ready, cost-effective access to world markets.

Through its strategic management of a carefully designed network of dams, TVA last year averted an estimated \$173 million in potential flood damage along the Tennessee River and its tributaries, as well as further downstream in the Mississippi and Ohio river basins. These dams also support water quality and protect 11,000 miles of valuable shoreline from erosion.

TVA dams also make possible recreation opportunities on hundreds of thousands of acres of reservoir water as well as adjoining lands. TVA is unique in addressing all these needs—transportation, land use, flood control, water quality, recreation and, of course, power production—with a highly regarded, time-tested approach that manages the river system as an integrated whole.

TVA not only enhances the value of Valley resources; it protects them by being an advocate for environmentally sensitive river-front development and by building coalitions to improve water quality. Among the nation's utilities, TVA is a leader in taking aggressive, proactive steps to minimize the impact of its own operations on the environment.

**Value in promoting economic growth**

TVA's mandate to be a regional development agency has led to the creation of a wide range of supplemental services that promote economic growth. Primary among these are services to support industrial development. These include technical services ranging from aerial mapping to making recommendations on energy efficiency; assisting



THE TVA BOARD:

Director Glenn L. McCullough, Jr. (seated), Chairman Craven Crowell, Director Skila Harris



Chairman Crowell (*center*) presides at a TVA Board meeting, flanked by Directors Glenn L. McCullough, Jr. and Skila Harris.

state and local industrial development agencies in marketing industrial sites; developing cutting-edge Internet technology to assist industrial prospects in site selection; and providing economic loans that leverage additional investments for the Valley economy.

#### **Value in supporting our customers and stakeholders**

To optimize the value it provides, TVA emphasizes continuing dialogues that ask customers and other stakeholders, "How are we doing?" From these dialogues have come new pricing products that better match end-users' needs to give them additional flexibility in managing their energy costs and help them operate more efficiently and produce more competitively.

TVA historically has been a pacesetter for the electric utility industry, and through continuing partnerships with customers and other stakeholders, industry groups and other government agencies, TVA is working to develop cleaner and more efficient ways of producing electric power that will benefit the entire industry.

#### **Value in supporting the growth of alternative energy sources**

TVA also collaborates extensively to improve its management of the Valley's resources, support the growth of alternative energy sources and assure the continuance of TVA's unique services in a restructured electric power marketplace. Although investment in electricity research and development throughout the electric utility industry is at a 20-year low, TVA is leading the effort to find ways that all utilities can produce power more cleanly and efficiently. TVA's Public Power Institute is the focal point of collaborations with other entities, including the Department of Energy and the Environmental Protection Agency. In addition, TVA provides major support to industry organizations such as the Electric Power Research Institute, of which I serve as Chairman of the Board of Directors.

#### **Value in assuring that our customers can continue to enjoy the benefits of TVA service in a restructured electric power marketplace**

The desired outcome of electric power industry restructuring and deregulation is to provide incentives for utilities to deliver reliable power at the lowest possible price. However, recent experiences in California and other states show that this outcome is not guaranteed and suggest the wisdom of a more measured approach to restructuring in the Tennessee Valley.

Investor-owned utilities are already consolidating to reduce costs and improve efficiencies through economies of scale. TVA is focusing on economies of value by taking bold steps to further drive down costs and boost productivity and reliability so as to offer the best value in price and service to its customers. And we are doing this while maintaining our commitments to reliability, safety and long-range planning.



TVA is keeping its delivered cost of power stable while the market cost has increased dramatically during the past three years. TVA's production costs continue to be among the lowest in the nation, and employee productivity has risen 164 percent in the past decade.

TVA continues to maintain competitive prices and expand its financial flexibility through innovative financial management. After capping its debt four years ago, TVA has successfully reduced the debt by a total of \$1.7 billion, including a \$391 million reduction in fiscal year 2000. In recent years TVA has refinanced some \$13 billion of debt on U.S. and global bond markets, lowering its average interest expense as a percentage of total debt from 7.6 to 6.8 percent. Thanks to these measures and the support of more than 370,000 investors worldwide, TVA's interest expense as a percentage of revenues is lower than at any time in the past 20 years.

#### **Beyond the bottom line**

Lower costs and higher productivity are essential, given the nature of energy growth in the United States. Energy demand continues to increase nationwide, but even more so in the Tennessee Valley region, where economic growth of 4 percent annually means more people are working and producing. Strong economic growth drives strong energy demand growth of 3 percent a year—nearly 1.5 times the national average. If present trends continue, the southeastern United States could need as much as 80,000 megawatts of additional generating capacity within 12 years.

Possible capacity shortages and inadequate transmission nationwide highlight the need for more investment in infrastructure and new technology.

#### **Conclusion**

TVA is striving to be the best by delivering value to the people we serve. As our nation's economy grows and our reliance on electronic technology increases, so will the need for the superior value that only electricity can provide. TVA's plan for meeting this demand focuses on five strategic objectives:

- Reduce the delivered cost of power.
- Retain customers and grow stakeholder support.
- Optimize use of assets and ensure reliability.
- Retain the benefits to the region of TVA's integrated operations.
- Create and expand opportunities for targeted business and industrial growth.

By achieving these objectives, TVA will meet customer and other stakeholder needs as efficiently and effectively as possible and continue to be the energy supplier of choice in the Tennessee Valley. TVA has the people, the vision and an effective, integrated strategy to meet these objectives. In the future, as in the past, TVA will apply all its resources to the continuing challenges of quality, reliability and, above all, value.

*“TVA is keeping its delivered cost of power stable while the market cost has increased dramatically during the past three years. TVA's production costs continue to be among the lowest in the nation, and employee productivity has risen 164 percent in the past decade.”*

—Craven Crowell,  
Chairman, TVA Board of Directors



# reduce the Delivered *cost of* *power*

*The first and most fundamental of TVA's Five Strategic Business Objectives is to Reduce the Delivered Cost of Power. To be the power supplier of choice in a competitive marketplace, TVA carries out ambitious programs to achieve continuous process improvement, operational efficiency and financial flexibility.*

TVA's price of power is competitive today, and its target price of power for the future will remain competitive as the industry is restructured. The average residential price of electricity in the TVA region is 23 percent lower than the national average. And TVA has maintained low prices while providing an exceptionally reliable supply of power to fuel the solid economic growth in the Tennessee Valley.

#### **Operations**

TVA's power system operates at record levels of efficiency, productivity and safety. In August 2000 TVA met five peak power demands higher than the previous year's record. The highest was 29,344 megawatts on August 17, when the

average temperature across the Valley reached 99 degrees. That peak was 1,049 megawatts, or about 3.7 percent, higher than the 1999 all-time record of 28,295 megawatts. For the year, TVA generated 152 billion kilowatt-hours (kWh).

#### **Nuclear**

TVA Nuclear set records for continuous operation and refueling outages and ended the year with a net capacity factor of 94.6 percent, having generated almost 47 million megawatt-hours.

- TVA Nuclear set a generation record for the fifth consecutive year and increased its output for the seventh consecutive year.
- Watts Bar Nuclear Plant set a TVA record for nuclear units of similar design by operating continuously for more than 512 days before starting a planned refueling outage on September 10. This is the first-ever continuous run of a TVA nuclear unit from one refueling outage to the next.
- After a TVA record run of 548 days, Browns Ferry Unit 3 completed a refueling outage in 18 days, which ranks as the second shortest in the U.S. and set a world record for General Electric boiling-water reactors.
- For the third consecutive year, TVA nuclear units were ranked among the top 25 performers in the U.S. and the top 50 worldwide during 1999 by *Nucleonics Week*.
- With capacity factors higher than 97 percent, Sequoyah Unit 1 and Browns Ferry Unit 3 ranked 6th and 9th, respectively, out of 104 licensed U.S. nuclear units.



## Fossil

- In the month of July Cumberland Fossil Plant generated more power than any TVA plant in the last 15 years, enough to meet the needs of about 130,000 Valley homes for a full year.
- Johnsonville Fossil Plant generated 7.7 million megawatt-hours, the most generated in a fiscal year by the plant in the last 30 years.
- The Rapid Unloader and Blend Facility at Kingston Fossil Plant cut coal-unloading time by 75 percent, saving about \$12 million per year (see photo below).
- The Maintenance Cost Busters Team at John Sevier Fossil Plant was one of two finalists in the Government category of the Rochester Institute of Technology/*USA Today* Quality Cup competition. The team solved a mechanical-seal problem on boiler-feed pumps that will save about \$1.5 million over the next 20 years.

## Procurement

Using a comprehensive life-cycle program strategy for Procurement, TVA's Supply Chain initiative has reduced costs for materials and services by more than \$100 million over the past two years.

## Finance

In 1997 TVA embarked on its Ten Year Business Outlook to keep its costs competitive with the market price of power in the year 2007. It was acknowledged in 1997 that inter-



"My job is to manage five fossil plants, including the physical assets, 1,300 people and a \$175 million

annual operations budget. Our biggest challenge is to optimize the performance of TVA's fossil system while operating our plants safely and meeting our environmental commitments. We're busy now making an effective transition to a deregulated economy while still providing value to the region."

—Marcia "Marci" Cooper,  
General Manager,  
Fossil Operations,  
TVA Western Plants

est expense, as an important component of total cost, must be reduced and financial flexibility enhanced.

- TVA has reduced its total debt by \$1.7 billion from its peak, including a \$391 million reduction in fiscal year 2000.
- Interest expense as a percentage of operating revenue has decreased from a peak of 34 percent to 26 percent.
  - The average interest expense as a percentage of total debt has been reduced from 7.6 to 6.8 percent by refinancing \$13 billion of debt on U.S. and global bond markets.
  - Cash flows from operating activities have grown from \$800 million in 1995 to \$1.6 billion in 2000, an improvement of 100 percent.
  - The interest coverage ratio is now 1.93, an improvement of 36 percent from five years ago.



LEFT: Clifford Tallent oversees the new Rapid Unloader at Kingston Fossil Plant.

# retain Customers & Grow *stakeholder support*

*TVA's success depends on the success of its customers. To prepare for greater competition and customer choice, TVA works cooperatively with the distributors of TVA power and with directly served customers to identify competitive products and services that will meet their future needs. In an increasingly competitive marketplace, TVA must be the electric supplier of choice in price, availability, reliability, quality and service.*

Just as the competitive environment is changing for TVA, it is also changing for TVA's customers. TVA is working closely with distributors and directly served industries through numerous initiatives to help give them a decisive edge.

#### **Customer Initiatives**

- During fiscal year 2000 TVA began a Wholesale Energy-to-Market test program that gives distributors the opportunity to gain experience buying power on the open market and arranging for its delivery to TVA.
- Variable Price Interruptible (VPI) Power is a new pricing program that offers significant

price savings to those industries that can curtail their operations when the market price of electricity is highest. Programs like VPI help TVA ensure that adequate power supplies will be available to serve all customers in the Valley.

- Through another pilot pricing program, Firm Fixed Price Buy-Back, TVA can purchase power back from customers. This helps TVA reduce its exposure to potentially high market prices while giving the customer the opportunity to sell back power to TVA.
- To meet the needs of existing commercial and industrial customers in the Valley, TVA and distributors work together to provide engineering and technical expertise in all areas of energy use, including lighting, HVAC, wiring, industrial processes and load management. In addition to helping customers use energy more efficiently, these programs are instrumental in retaining jobs throughout the region.
- TVA and distributors also have begun focusing attention on regional accounts—customers with multiple locations throughout the Tennessee Valley. An automated summary billing pilot will provide one bill to customers with multiple Valley facilities, which makes billing more convenient and allows a company to analyze utility costs across its operations.

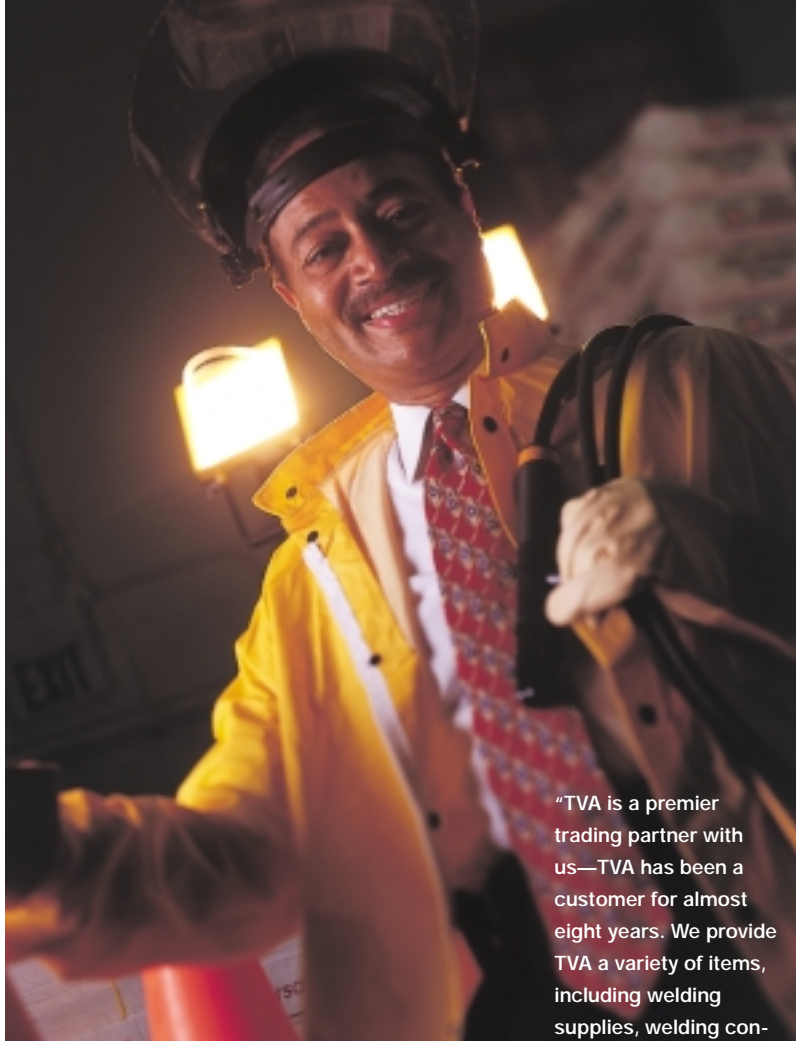
### Agreement on Restructuring

At the request of congressional members who represent the Tennessee Valley states, TVA, distributors of TVA power and TVA's industrial customers jointly developed legislative language that would ensure equitable treatment for TVA and its customers under Federal restructuring legislation. This "TVA Title" was introduced as a stand-alone bill in Congress by Senators Bill Frist, Fred Thompson and Thad Cochran. The "TVA Title" would:

- Bring the benefits of wholesale competition to the Tennessee Valley.
- Continue to give TVA the right to build generation as needed to keep up with demand.
- Place TVA's transmission system under the oversight of the Federal Energy Regulatory Commission.
- Not affect the continuance of TVA's mandate to manage the Tennessee River system, thereby retaining the benefits to the Valley of TVA's integrated operations of the river system.

### Stakeholder Initiatives

A 20-member Federal Advisory Committee, the Regional Resource Stewardship Council, was created to advise TVA on the management of public water and land resources. Members represent a broad range of interests and geographically dispersed economic communities. Meetings are open to the public and serve as a forum for ongoing discussion about issues of importance to TVA stakeholders.



"TVA is a premier trading partner with us—TVA has been a customer for almost eight years. We provide TVA a variety of items, including welding supplies, welding consumables and welding machines, as well as labor and technicians on a subcontractor basis. We provide these items in a timely fashion in order for TVA to do its job for all its utility customers—and I'm one of those. I am part of the supply chain and also part of the customer base."

—Bill Crawley,  
President, Southern Sales  
& Services Co. Inc.,  
Memphis, Tennessee

### Green Group

A representation of such environmental organizations as the Sierra Club and the Tennessee Conservation League, the Green Group began meeting with TVA executives on a regular basis to exchange information and discuss issues of mutual importance to TVA and the organizations' members.

### Purchases From Valley Businesses

In fiscal year 2000 TVA spent about \$850 million of its contract expenditures for materials and services with businesses with locations in the Valley. This includes more than \$35 million to members of TVA's Diverse Valley Businesses program and TVA's Procurement Mentoring program.

"The whitewater provided by TVA's water releases on the Ocoee and at Rock Island provides Tennessee with some of the best paddling opportunities in the world. Dagger Canoe supports and encourages TVA's efforts to provide increased green power alternatives and to continue reducing fossil fuel emissions. We also support their efforts in watershed protection and wildlife conservation."

—Joe Pulliam, President, Dagger Canoe,  
Harriman, Tennessee

# optimize Use of Assets & ensure reliability

*Today's digital economy, which relies on delicate electronics and sensitive microchips, demands unprecedented levels of power quality and reliability. As the economy of the Tennessee Valley grows at about 4 percent annually—nearly double the national average—the demand for TVA power is increasing at about 3 percent annually, compared with earlier projections of 2.2 percent. TVA's challenge is to meet the region's growing demand for high-quality electricity while ensuring the reliability of our product.*

#### **New Capacity**

TVA has added more than 3,500 megawatts of capacity since 1994 and plans to add additional capacity as needed over the next few years.

- New combustion turbines were added at the Johnsonville and Gallatin sites to provide 680 megawatts of additional peaking capacity. Another 680 megawatts of combustion turbine capacity will be constructed in time for the summer of 2001 and up to 680 megawatts more by 2002.

- The generating capacity of TVA's hydro system has been increased by some 260 megawatts through the Hydro Modernization Program. When the program is complete, it is expected to provide a total of more than 700 megawatts of additional capacity.
- During fiscal year 2001 the Red Hills Power Project, a 440-megawatt power-production facility in Northeast Mississippi, will be placed in service and begin selling its power to TVA. The plant—which is owned by Choctaw Generation Limited Partnership and operated by Choctaw Generation Inc., a subsidiary of Tractebel Power Inc.—uses clean-coal technology to burn lignite coal mined near the plant. Mississippi Lignite Mining Company, an affiliate of North American Coal Company, operates the mine.
- Modifications to Browns Ferry Nuclear Plant Units 2 and 3 increased the generating capacity of each unit by about 55 megawatts and increased their operating cycles from 18 months to 24 months.

#### **Reliability**

- Extensive transmission maintenance outage and construction work, as well as walk-downs and infrared scans of substation

equipment, was completed prior to the high-peak demands of summer. The result: near-record reliability.

- Since 1995 TVA has added 700 miles of transmission lines and 138 customer delivery points.
- This year TVA and the distributors of TVA power installed capacitor banks to improve system voltage and hundreds of lightning arrestors to minimize service interruptions.
- A new Asset Availability Process allowed TVA to better identify and correct potential problems before they could affect system readiness.
- Over the peak summer season, TVA's fossil system generated more than 35 million megawatt-hours, the most generated over this period since 1993.

#### Human Resources

TVA's most valuable asset is its experienced and dedicated workforce. With the average age of TVA employees at 47, nearly 4,000 of TVA's 13,145 employees become eligible for retirement in the next five years. TVA is aggressively recruiting and training the next generation of employees. Through the Integrated Staffing Plan, TVA works to ensure that the workforce is in place to meet the challenges of competition.



"The Combustion Turbine Sites provide TVA with 'peaking power.' We push the start button and 20 minutes later we have power on line. This

year I've overseen the installation and start-up of four new combustion turbines, the first in many years.

I've been at TVA for 24 years, and I've stayed because of the diverse opportunities for many different experiences—in human resources, labor relations and on the power side."

—Donna Bruno,  
Site Manager,  
Gallatin Combustion  
Turbine Site

The American Society for Training and Development and the American Productivity and Quality Center both recognized TVA University for its innovative employee development and training initiatives. TVA University was established in 1994 as the umbrella for all education and training at TVA.



LEFT: Edith Walker, Simon McGeough, and Jaime Smith of the Chief Financial Officer's organization were recruited as part of TVA's Integrated Staffing Plan.

# retain the Benefits of TVA's *integrated operations*

*TVA is a regional development agency that manages the natural resources of the Tennessee River system to produce maximum benefit for the people of the Tennessee Valley. TVA's challenge is to balance its responsibility for supplying low-cost, reliable electric power with the demands on water and public lands.*

Balancing the competing demands on the river system is vital to protecting the region's natural resources and supporting its sustainable development. TVA has six distinct areas of responsibility: navigation, flood control, power supply, land use, water quality and recreation. All are possible because the resources are managed as an integrated system to optimize the river's potential and to return multiple benefits to the public and the environment.

- Twelve watershed teams are a vital part of TVA's stewardship efforts throughout the 42,000 square-mile Tennessee River water-

shed. Their efforts yield tangible results as illustrated by state fish and wildlife agencies' reintroduction of the indigenous lake sturgeon into waters from which it had long been absent, a project made possible by improved water quality.

- With input from stakeholders, TVA issued its first Environmental Annual Report, which will serve as a benchmark for stakeholders to track TVA's future performance in integrated resource management.
- See descriptions of TVA's current environmental initiatives on the web at [www.tva.gov/environment](http://www.tva.gov/environment).

#### **The Public Power Institute**

The TVA Board participated in the ribbon cutting for the Public Power Institute (PPI) this year. PPI's mission is to develop and demonstrate new ideas and technologies that support public power's role as a power producer, leader in environmental responsibility and promoter of efficient energy use. During the first year of operation, the Institute has accomplished several milestones.

- Introduced the first U.S. program for accreditation of a green power pricing program with regulated and publicly owned utilities.
- Installed TVA's first microturbine, which supplies power to the PPI headquarters in Muscle Shoals, Ala., and a separate installation at the Huntsville Utilities Board.



- Established more than 125 public benefit and technology partnerships with national organizations such as the Department of Energy, American Public Power Association, National Rural Electric Cooperative Association and the Environmental Energy Studies Institute.
- Provided national leadership in the development of the President's Biomass Vision, Roadmap and Strategic Plan.
- Established a simple, easy-to-access Web site ([www.public-powerinstitute.org](http://www.public-powerinstitute.org)) that provides a point of entry to TVA for entities interested in helping build alliances that promote improvements in energy production, delivery and use while reducing environmental impacts.

#### Green Power Switch<sup>SM</sup>

TVA facilitated a team of environmental groups, 12 power distributors and TVA-wide representatives to become the first in the Southeast to offer consumers the opportunity to underwrite the production of power from cleaner, renewable resources such as solar, wind and landfill gas. The program, Green Power Switch, began as a one-year market test and reflects TVA's commitment as a public utility to develop low-impact energy sources. The first renewable resources include three wind



ABOVE: TVA's system of reservoirs, including Douglas Dam in East Tennessee, provides recreational opportunities that attract millions of visitors to the Valley each year.

turbines near Clinton, Tenn., and 12 solar sites projected to be in service before January 2001.

#### Clean Air Initiatives

During fiscal year 2000 TVA expanded its efforts to protect the environment even beyond those required by law.

- TVA has spent more than \$2.5 billion on air-pollution-control equipment at its 11 coal-fired plants. These investments have reduced TVA's sulfur dioxide emissions by two-thirds and lowered nitrogen oxide (NO<sub>x</sub>) emissions by one-fifth since 1976.
- To further reduce emissions of nitrogen oxide, TVA is installing 18 selective catalytic reduction (SCR) systems on seven of its fossil plants. By 2005, the SCR systems, with a projected cost of between \$800 and \$900 million, will reduce NO<sub>x</sub> emissions during the summer ozone season by 75 percent compared with mid-1990 levels.
- TVA modified the 16 combustion turbines at Johnsonville Fossil Plant and four turbines at Gallatin Fossil Plant to burn natural gas in addition to fuel oil. This gives TVA the flexibility to purchase the lowest cost fuel and reduce NO<sub>x</sub> emissions when natural gas is being used.



LEFT: TVA employee Kim Pilarski conducts research for TVA's ongoing wetlands project.

# create & expand Opportunities for Targeted *business* growth

*TVA's most important contribution to economic development is providing the region with reliable, high-quality electric power at competitive prices. TVA also works in partnership with communities and businesses throughout the region to facilitate leadership development, stimulate capital investment and promote the creation and retention of jobs.*

**Economic Development Loan Fund**

In 1995, at the request of distributors of TVA power, TVA established the Economic Development Loan Fund. Since then TVA has loaned over \$90 million to Valley businesses and industries, which has helped create or retain more than 30,000 jobs through the fund. These investments have helped leverage more than \$1 billion of funding from other sources—an average of \$32 for every \$1 that TVA invests.

**Industrial Development**

In partnership with the distributors of TVA power, Regional Industrial Development Associations (RIDAs) and state economic development agencies, TVA provides industrial prospects with integrated economic information.

- Two examples of TVA's comprehensive assistance in locating new manufacturing facilities in the Valley include Valmont Industries in Jasper, Tenn., and Cormetech in Cleveland, Tenn. Both firms worked with TVA's Procurement organization, Economic Development staff and Transmission/Power Supply Group and state and local officials to select new sites. Valmont's new steel-pole production facility (*see photo at right*) will employ 150 workers, while Cormetech's environmental catalyst manufacturing and regenerating plant has hired 105 people.
- The Tennessee Valley Industrial Development Association, a partnership between TVA and eight RIDAs, was recognized by *Site Selection* magazine as one of the nation's Top 10 utility-based industrial development organizations.
- TVA and its RIDA partners assisted firms across the Valley in adding or retaining 47,300 jobs during fiscal year 2000. These projects leveraged \$770 million of new capital investment in the Valley and helped add or retain 145 megawatts of electrical demand for distributors of TVA power.

**Minority and Small Business Support**

TVA's commitment to economic development includes investments in minority and small business development.





“We’ve been a major supplier of steel utility poles to TVA for the past ten years. We sell TVA thousands of poles annually, and that’s one of the main reasons we’re building a plant in Jasper, Tennessee. Having a plant here will give TVA and us an advantage in reducing freight costs, improving speed and customer service, as well as creating jobs for the local area.”

—Steve Schmid,  
General Manager,  
Valmont Industries Inc.

- TVA’s Minority Business Development Loan Fund (MBDLF) promotes job creation and advances the economic well-being of socially and economically disadvantaged individuals and minority businesses in the Valley.
- MBDLF is helping create 200 jobs in Lexington, Tenn., by financing an expansion of the Manufacturers Industrial Group. Another 49 jobs are being created in Jellico, Tenn., with MBDLF financing machinery and equipment to expand Jamie’s Decor Inc., a small, woman-owned business.
- TVA provides financial support and technical assistance for business incubators across the Tennessee Valley to help businesses minimize costs while providing on-site technical support. TVA’s incubator loan fund helps some tenants meet short-term needs for capital and cash flow. To date TVA and other Federal and state agencies have invested in 21 small business incubators. These incubators have helped launch more than 700 businesses and create 5,200 jobs.
- One example of TVA’s investment in business incubators is the Memphis Incubator System Inc. (MISI), created in 1999. In its temporary location MISI houses eight businesses including Byte Size Networking Services, which recently became the

incubator’s first tenant to obtain a loan guaranteed by the U.S. Small Business Administration.

- Since 1989, 178 Tennessee Valley communities have partnered with TVA to host Business Development Weeks that offer technical training and support to emerging companies in small towns and rural communities. Each year more than 2,500 people visit the Mobile Business Center, attend seminars and receive business counseling.

#### Community Development

TVA helps communities improve their competitiveness through strategic planning processes, leadership development and grants administration.

- In 1999 more than 1,400 people participated in TVA’s planning processes or workshops. In Jefferson County, Tenn., 200 community leaders and citizens helped prepare a strategic agenda that outlined a vision, goals and strategies for the future.
- TVA administered 41 Appalachian Regional Commission (ARC) projects over the past year, with a grant value of \$9.5 million. Six projects were completed, which created more than 1,300 new jobs and nearly \$90 million in public and private investment for Valley communities.

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## Overview

TVA's electric power system is one of the largest in the United States, having produced 152 billion kilowatt-hours (kWh) of electricity in 2000. TVA is primarily a wholesaler of power. Its customers include three major groups: (1) distributors, consisting of municipal and cooperative systems; (2) industries that have large or unusual loads; and (3) Federal agencies. In addition, TVA sells and buys power through exchange power agreements with most of the surrounding electric systems. TVA's power service area covers 80,000 square miles in the Southeastern United States, including most of Tennessee and parts of Alabama, Georgia, Kentucky, Mississippi, North Carolina and Virginia. TVA also manages the Tennessee River system, the nation's fifth largest.

TVA is a wholly owned corporate agency and instrumentality of the U.S., established by Congress in 1933 primarily to develop and manage the resources of the Tennessee Valley region to strengthen the regional and national economy and the national defense.

TVA's electric system operations are required to be self-supporting from power system revenues, which were about \$6.8 billion in 2000. No tax dollars fund TVA's power system and river management functions. Prior to 2000 TVA received Federal appropriations for essential stewardship activities related to its management of the Tennessee River system and TVA properties (nonpower programs). Congress did not provide any appropriations to TVA to fund such activities in 2000. Consequently, TVA paid for essential stewardship activities primarily with power revenues, with the remainder funded through user fees and nonpower fund balances unused in prior years.

Unless otherwise indicated, "years" (2000, 1999, etc.) in this discussion refer to TVA's fiscal years ended September 30. References to "notes" are to the Notes to Financial Statements.

## TVA and Competition

In the future, it is likely that the current law that limits competition between TVA and other power systems will change. In the past three years, numerous bills have been introduced in Congress designed to restructure the electric utility industry and mandate or promote competition in the industry. Passage of these types of bills would result in major changes in the electric power industry that would significantly impact both privately owned utilities and publicly and consumer-owned electric power

suppliers like TVA and the distributors of TVA power. It is likely that the level of government regulation, particularly for the publicly and consumer-owned power suppliers, would increase. Some key issues for TVA are: (1) whether TVA rates will be regulated by the Federal Energy Regulatory Commission (FERC); (2) whether TVA and the distributors of TVA power will be able to sell power outside the TVA service area; (3) whether Congress will attempt to shorten the terms of TVA's present wholesale power contracts with the distributors of its power; and (4) whether TVA will have the right to recover its power system investments that would no longer be economical under full and open market competition (stranded costs). TVA anticipates that in the event any restructuring legislation is enacted, such legislation would enable TVA and the distributors of its power to take part, reciprocally, in competition outside the area for which they can now be a source of electric power supply.

TVA worked closely with the Tennessee Valley Public Power Association, the association that represents all distributors of TVA power, to further refine the position on industry restructuring reached by TVA and the vast majority of distributors of TVA power in September 1999. A consensus position on the TVA provisions to be included in national restructuring legislation was reached by TVA and all distributors of TVA power in May 2000. It includes the following key features: (1) simultaneous repeal of (i) the statutory restrictions on sales of power by TVA outside the area served with TVA power and (ii) the statutory impediments to transmission into that area of power being sold by competitors, which repeals would occur on the effective date of the restructuring legislation; (2) renegotiation of power contract terms, with distributors having a statutory right to terminate their contracts upon three years' notice; (3) distributors having a statutory right to take partial requirements from other suppliers in the absence of reaching a different agreement with TVA on partial requirements; and (4) reduction in most of TVA's existing regulatory roles with respect to distributors. U.S. Senators Bill Frist, Fred Thompson and Thad Cochran introduced a bill in the U.S. Senate that incorporates the new consensus position.

## 2000 compared with 1999

### Operating Revenues

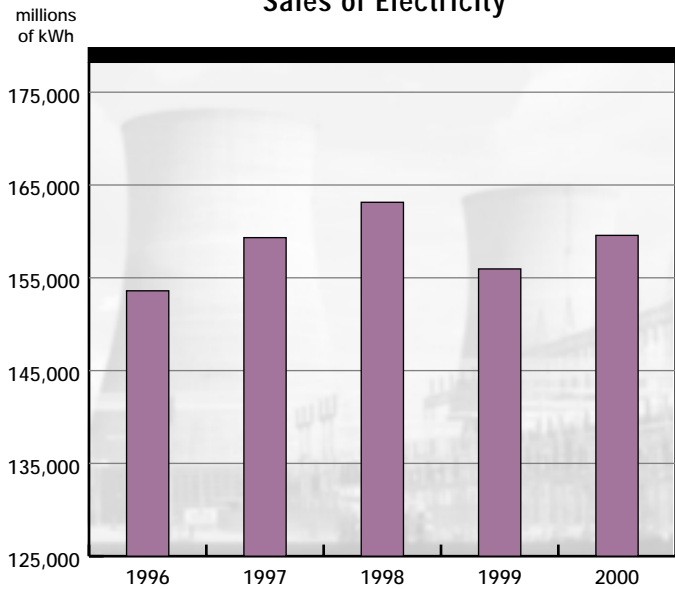
Operating revenues were \$6,762 million in 2000, compared with \$6,595 million in 1999. The \$167 million increase was primarily

## Results of Operations

The following table compares operating results (in millions) and selected statistics for TVA for the years ended September 30:

	2000	1999	1998
Operating revenues	\$6,762	\$6,595	\$6,729
Operating expenses	(5,019)	(4,926)	(4,549)
Operating income	1,743	1,669	2,180
Other income, net	17	10	12
Interest expense, net	(1,736)	(1,777)	(1,959)
Cumulative effect of change in accounting principle	–	217	–
<b>Net income</b>	<b>\$ 24</b>	<b>\$ 119</b>	<b>\$ 233</b>
<b>Sales (millions of kWh)</b>	<b>159,571</b>	<b>155,955</b>	<b>163,137</b>

### Sales of Electricity



due to an increase in energy sales to municipalities and cooperatives as a result of the hot summer during 2000. Accordingly, total kWh sales increased 3.6 billion kWh, from 156.0 billion in 1999 to 159.6 billion in 2000.

#### Operating Expenses

Operating expenses increased \$93 million, or 2 percent, from \$4,926 million in 1999 to \$5,019 million in 2000. This increase was primarily due to higher fuel and purchased power expense of \$183 million in 2000 as a result of hotter summer weather and increased power demand, and establishment of a \$75 million inventory valuation reserve, partially offset by a \$140 million reduction in the amount of accelerated amortization recorded in 2000 (see note 1—Accelerated amortization).

#### Interest Expense

Net interest expense declined \$41 million from \$1,777 million in 1999 to \$1,736 million in 2000. Total outstanding indebtedness, as of September 30, 2000, was \$26.0 billion, with an average interest rate of 6.83 percent; as of September 30, 1999, this amount outstanding was \$26.4 billion, with an average interest rate of 6.83 percent.

### 1999 compared with 1998

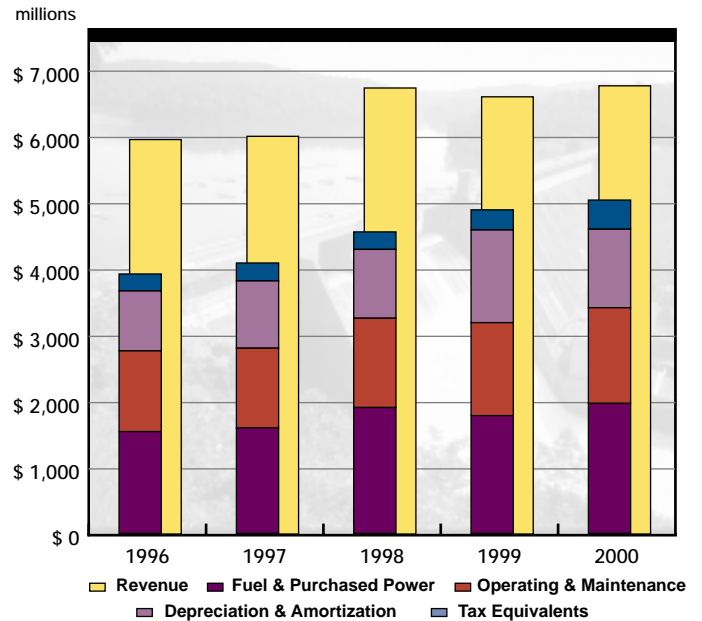
#### Operating Revenues

Operating revenues were \$6,595 million in 1999, compared with \$6,729 million in 1998. The \$134 million decrease was primarily due to a reduction in wholesale sales to other utilities related to mild weather and a weaker spot market for power during 1999.

#### Operating Expenses

Total operating expenses increased \$377 million, from \$4,549 million in 1998 to \$4,926 million in 1999. This increase was primarily due to a \$261 million charge for the acceleration of

### Operating Revenues & Operating Expenses



the amortization of regulatory assets (see note 1—Accelerated amortization) coupled with a \$111 million increase in the amortization of regulatory assets attributable to the reclassification of certain nuclear fuel costs (see note 1—Other deferred charges).

#### Interest Expense

Net interest expense declined \$182 million from \$1,959 million in 1998 to \$1,777 million in 1999. This reduction largely reflects savings associated with the refinancing of \$3.2 billion of debt issues formerly held by the Federal Financing Bank. Total outstanding indebtedness as of September 30, 1999, was \$26.4 billion, with an average interest rate of 6.83 percent; as of September 30, 1998, this amount outstanding was \$26.7 billion, with an average interest rate of 7.45 percent.

### Liquidity and Capital Resources

#### Capital Structure

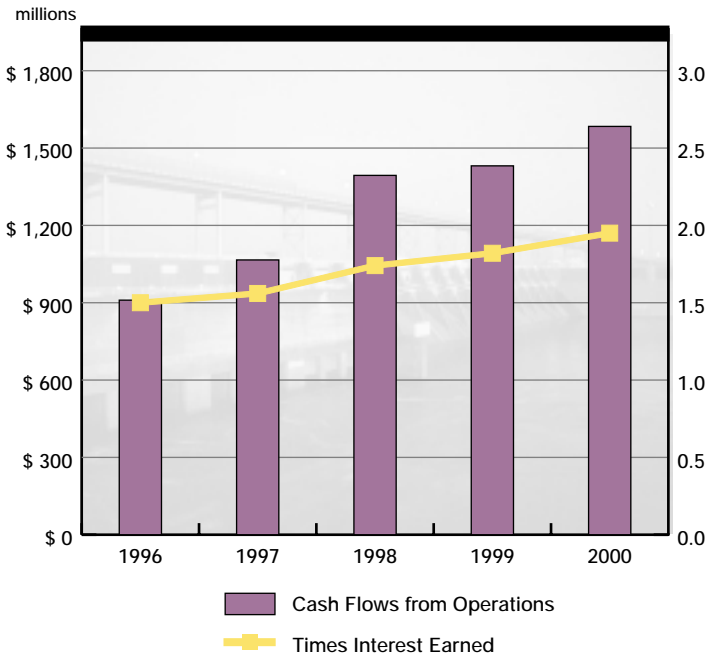
During the first 25 years of TVA's existence, the U.S. Government made appropriation investments in TVA power facilities. In 1959 TVA received congressional approval to issue bonds to finance its growing power program. For the past four decades, TVA's power program has been required to be self-supporting. As a result, TVA funds its capital requirements through internal cash generation or through borrowings (subject to a congressionally mandated \$30 billion limit).

A return on the U.S. Government's initial appropriation investment in TVA power facilities, plus a repayment of the initial investment, is specified by law. The payment for 2000 was \$54 million, and total cumulative repayments and return on investment by TVA to the U.S. Treasury exceed \$3 billion.

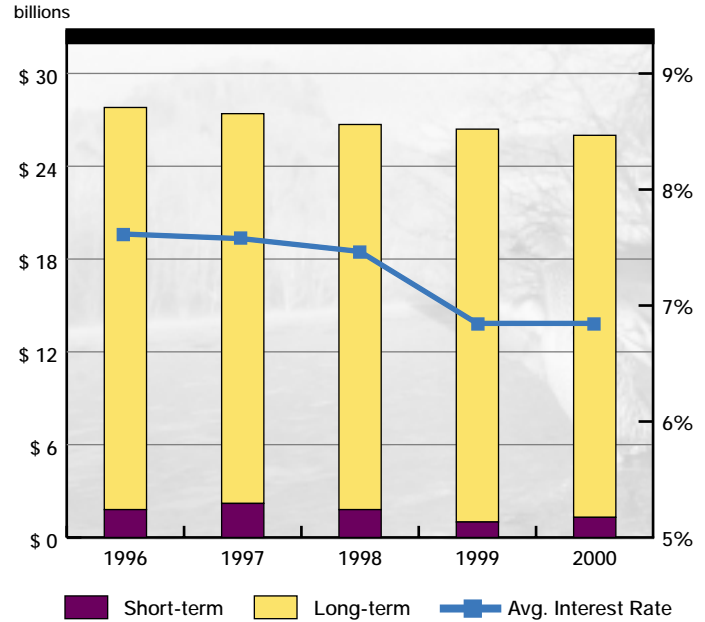
#### Cash Flows

Net cash provided by power program operations for 2000, 1999 and 1998 was \$1,584 million, \$1,431 million and \$1,394 million,

Cash Flows from Operations & Times Interest Earned



Outstanding Debt & Interest Rate



respectively. This positive trend reflects improvements made in TVA's operations during the three-year period.

Net cash used in investing activities for 2000, 1999 and 1998 was \$1,035 million, \$956 million and \$742 million, respectively. The \$79 million increase from 1999 to 2000 was primarily due to an increase in construction expenditures of \$38 million reflecting the construction of natural gas combustion turbines for peaking power and an increase in nuclear fuel enrichment and fabrication costs of \$49 million.

Net cash used in financing activities for 2000, 1999 and 1998 was \$304 million, \$763 million and \$560 million, respectively. For 2000 the cash used in financing activities reflects the aggregate net reduction of total outstanding debt of \$391 million coupled with borrowing costs and other financing costs of \$202 million, offset by the proceeds from combustion turbine financing of \$300 million.

Capital Resources

During 2000, 1999 and 1998 TVA accessed the capital markets through cost-effective long-term financing structures and continued to expand its investor base by tapping the global and retail debt markets. During 2000 TVA entered the bond market with seven issues. TVA tapped the retail markets in February 2000 by issuing five callable bonds totaling \$250 million with

maturities ranging from five to 30 years. In May TVA issued 12-year bonds with a two-year put feature and a par value of \$750 million, and because of the favorable response, issued an additional \$250 million in July. The final bond offering of \$1 billion in June targeted global investors and reestablished TVA's benchmark in the 30-year sector. The proceeds from the borrowings were used to refinance existing debt.

In September TVA received approximately \$300 million in proceeds by entering into a lease-leaseback transaction for eight new peaking combustion turbine units. The proceeds from this transaction were for the benefit of its power program.

Market Risk

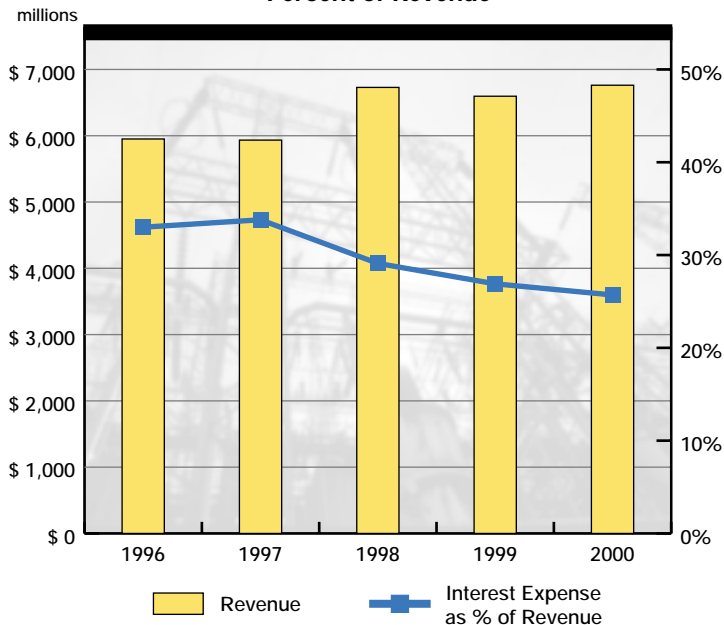
Risk Policies

TVA is exposed to market risks, including changes in interest rates, foreign currency exchange rates and volatility of certain commodity and equity market prices. To manage the volatility attributable to these exposures, TVA has entered into various nontrading derivative transactions, principally an interest rate swap agreement, foreign currency swap contracts, forwards, futures and option contracts. TVA has established its Risk Management Committee, which maintains responsibility for reviewing and approving controls and procedures for TVA-wide risk management activities including the oversight of models and

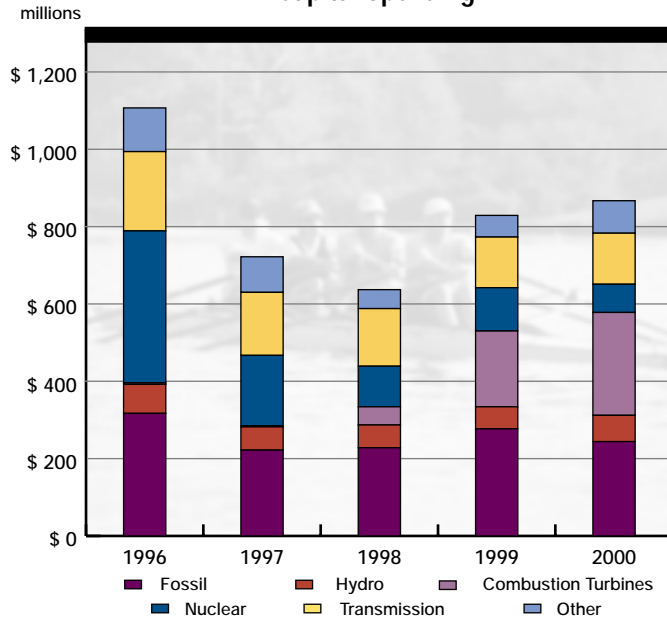
TVA's liquidity and capital measurements (dollars in millions) for its power program are:

	2000	1999	1998
<b>Cash flow from operations</b>	<b>\$ 1,584</b>	\$ 1,431	\$ 1,394
<b>Construction expenditures</b>	<b>\$ 867</b>	\$ 829	\$ 637
<b>Reduction in total debt</b>	<b>\$ 391</b>	\$ 308	\$ 695
<b>Net change in cash and cash equivalents</b>	<b>\$ 245</b>	\$ (288)	\$ 92
<b>Times interest earned</b>	<b>1.93</b>	1.82	1.72

### Operating Revenue & Interest Expense as a Percent of Revenue



### Capital Spending



assumptions used to measure risk, the review of counterparty exposure limits and the establishment of formal procedures for use of financial hedging instruments.

TVA is exposed to losses in the event of counterparties' non-performance and accordingly has established controls to determine the creditworthiness of counterparties in order to mitigate exposure to counterparty credit risk. With respect to hedging activities, TVA risk management policies allow the use of derivative financial instruments to manage financial exposures but prohibit the use of these instruments for speculative or trading purposes. Prior to October 1, 2000, TVA's effective implementation date for Statement of Financial Accounting Standards (SFAS) No. 133, *Accounting for Derivative Instruments and Hedging Activities*, TVA accounted for such hedging activities using the deferral method, with gains and losses recognized in the accompanying financial statements when the related hedged transaction occurs. See further discussion related to TVA's 2001 adoption of SFAS No. 133 at *New Accounting Pronouncements*.

#### Interest Rate and Foreign Currency Risk

TVA manages its daily cash needs through issuance of discount notes and other short-term borrowings. These borrowings with maturities of less than one year expose TVA to fluctuations in short-term interest rates. TVA is not exposed to changes in interest rates on most of its long-term debt until such debt matures and may be refinanced at the then-applicable rates. An interest rate swap is used to hedge TVA's exposure related to its inflation-indexed accreting principal bonds, and currency swap contracts are used as hedges for foreign currency denominated debt issues (see note 5—*Foreign currency transactions and interest rate swap*). Based on TVA's overall interest rate exposure at September 30, 2000, including derivative and other interest rate sensitive instruments, a near-term one percentage point

change in interest rates would not have a material impact on TVA's financial position or results of operations for 2000.

#### Commodity Price Risk

TVA is exposed to the impact of market fluctuations in the price and transportation costs of certain commodities and fuels including, but not limited to, coal, natural gas and electricity. TVA employs established policies and procedures to manage risks associated with these market fluctuations by using various commodity-based derivative instruments, including futures, forwards and option contracts. To monitor the risk of commodity trading activities, TVA employs a daily Value at Risk (VaR) methodology, which utilizes a statistical-based approach to determine adjusted historical changes in the value of a market risk sensitive commodity-based financial instrument to estimate the amount of change in the current value of the instrument that could occur at a specified confidence level over a specified interval. Based on TVA's VaR analysis of its overall commodity price risk exposure at September 30, 2000, management does not anticipate a materially adverse effect on TVA's financial position or results of operations as a result of market fluctuations.

#### Equity Price Risk

TVA maintains trust funds, consistent with the United States Nuclear Regulatory Commission requirements, to fund certain costs of decommissioning its nuclear generating units. These funds are managed by various money managers and are primarily invested in marketable equity securities, which are exposed to price fluctuations in equity markets. TVA actively monitors the trust funds' portfolios by benchmarking the performance of their investments against certain price indices. The accounting for nuclear decommissioning recognizes that, based on expected performance of the portfolio, sufficient funds have been set



aside to fully fund expected decommissioning obligations, and, therefore, fluctuations in trust fund marketable security returns do not affect the earnings of TVA (see notes 1 and 9—*Decommissioning costs*).

#### **Futures Contracts**

TVA may enter into electricity and gas futures contracts for the sole purpose of limiting or otherwise hedging TVA's economic risks directly associated with electric power generation, purchases and sales. The Chicago Board of Trade has designated the TVA power transmission system as a hub for electricity futures contracts.

### *Other Issues*

#### **Year 2000 Readiness**

The "Year 2000" issue concerned the inability of information technology systems to properly recognize and process date-sensitive information related to the year 2000 and beyond. TVA did not experience any significant Year 2000 problems in its power production, delivery system, administration, billing and accounting systems. The total cost of addressing Year 2000 systems readiness was approximately \$40 million.

#### **Spent Nuclear Fuel**

TVA has entered into a contract with the Department of Energy (DOE) for the disposal of spent nuclear fuel. Payments are based on TVA's nuclear generation and charged to expense. The provisions of the contract called for DOE to begin accepting spent nuclear fuel from utilities on January 31, 1998, the date provided by the Nuclear Waste Policy Act of 1982. However, as of September 30, 2000, DOE has not accepted any spent fuel. TVA's spent nuclear fuel storage facilities will be sufficient to provide storage space for spent fuel generated on TVA's system through 2004 for its Sequoyah Plant, through 2006 for its Browns Ferry Plant and through 2018 for its Watts Bar Plant. TVA plans to extend storage capability through life-of-plant if necessary by using higher density racks in its existing storage pools or dry storage casks. Additional storage capacity increases will require NRC approval. However, all of the above methods of extending storage capability have been licensed by the NRC at other facilities.

#### **Labor Agreements**

On September 30, 2000, TVA had 13,145 employees, of which 5,078 were trades and labor employees. Neither the Federal labor relations laws covering most private sector employees nor those covering most Federal agencies are applicable to TVA. However, the Board has a longstanding policy of acknowledging and dealing with recognized representatives of its employees, and this policy is reflected in long-term agreements to recognize trades and labor unions (or their successors) through 2007 and salary policy unions (or their successors) through 2012. Federal law prohibits TVA employees from engaging in strikes against TVA.

#### **Pending Litigation**

The Environmental Protection Agency (EPA) has issued TVA an administrative order directing TVA to put new source controls on

14 of its units and to evaluate whether more controls should be installed on other units. TVA has challenged the validity of this order. See *Environmental Matters* for a further discussion of this order.

TVA is also a party to various other civil lawsuits and claims that have arisen in the ordinary course of business. Although the outcome of these lawsuits and claims cannot be predicted with any certainty, it is the opinion of TVA counsel that their ultimate outcome should not have a material adverse effect on TVA's financial position or results of operations.

#### **Environmental Matters**

TVA's activities are subject to various Federal, state and local environmental statutes and regulations. Major areas of regulation affecting TVA's activities include air pollution control, water pollution control and management and disposal of solid and hazardous wastes.

TVA has incurred and continues to incur substantial capital expenditures and operating expenses to comply with environmental requirements. Because these requirements change frequently, the total amount of these costs in the future is not now determinable. It is anticipated that environmental requirements will become more stringent and that compliance costs will increase, perhaps by substantial amounts.

Under the Clean Air Act, the EPA has promulgated national ambient air quality standards for certain air pollutants, including sulfur dioxide, particulate matter and nitrogen oxide (NO<sub>x</sub>). Coal-fired generating units such as TVA's are major sources of these pollutants. The 1990 Amendments to the Clean Air Act established a number of new requirements relating to acid rain control, including additional requirements for sulfur dioxide and NO<sub>x</sub> emissions that are to be met in two phases. Through 2000 TVA had invested approximately \$1 billion in capital for Phase I and Phase II compliance. TVA estimates it will spend roughly an additional \$100 million in capital through 2003 to finalize the Phase II compliance measures. This will complete TVA's program for reducing sulfur dioxide and NO<sub>x</sub> to comply with the acid rain control requirements of the Clean Air Act.

During 1998 TVA adopted a new clean air strategy to install ten selective catalytic reduction systems (SCRs) to reduce NO<sub>x</sub> emissions from its coal fired plants. In 2000 TVA committed to an additional eight SCRs to further reduce its NO<sub>x</sub> emissions. The cost of implementing this strategy is expected to be between \$800 million and \$900 million in addition to amounts TVA has already spent to comply with the 1990 Clean Air Act Amendments. TVA's new strategy should bring TVA into compliance with EPA's ozone-transport regulations. However, recent court decisions have overturned or delayed other ozone related regulations. While these court decisions may have some effect on TVA's plans, TVA is committed to improving the air quality of the region, and TVA's NO<sub>x</sub> strategy was developed in part to help TVA's region continue to improve its air quality.

Although TVA cannot with certainty project the costs for additional reductions of NO<sub>x</sub>, sulfur dioxide and particulate matter emissions beyond those required by the acid rain

provisions of the 1990 Clean Air Act Amendments, the costs for these additional reductions could exceed \$2.5 billion.

EPA is investigating whether coal-fired utilities in the eastern U.S., including TVA, may have modified their coal-fired boilers without complying with new source review requirements. The outcome of this investigation is ongoing and uncertain. TVA contends EPA's investigation is based on a new interpretation of an old rule and that TVA has routinely maintained its power plants to ensure efficient, reliable power generation while complying with all requirements. However, EPA has issued TVA an administrative order directing TVA to put such new source controls on 14 of its units and to evaluate whether more controls should be installed on other units. TVA has challenged the validity of this order and the Eleventh Circuit Court of Appeals has stayed the order pending its review. It is not possible to predict with certainty what impact implementation of EPA's order would have on TVA if TVA's challenge is unsuccessful. If EPA substantially prevails, TVA could be required to incur capital costs in excess of \$3 billion (net present value) by 2010 to 2015. Any additional controls that TVA could be required to install on units as a result of this matter would, however, also be sufficient to comply with reduction requirements that are anticipated under other air quality programs discussed above. Thus, because of the other environmental program requirements, TVA would, in any event, likely have to incur a substantial portion of the costs that might result from the EPA enforcement action, albeit the schedule for the installation of the controls could be substantially accelerated by the EPA enforcement action. TVA fully supports the need to further reduce emissions from coal-fired plants and seeks a resolution that will not put TVA customers and the region at a disadvantage.

#### **Nonpower Roles and Responsibilities Transition**

TVA's responsibilities for managing public resources began with its creation in 1933. Today these resource management activities help sustain the interconnected tributaries and the main stem of the Tennessee River—the nation's fifth largest river system. Multiple objectives are balanced to provide flood control, navigation, electric power production, recreation and environmental protection. Funding for these programs historically has included Federal appropriations, power revenues and nonpower revenues such as user fees.

In October 1997 Congress directed TVA to fund essential stewardship activities related to its management of the Tennessee River system and TVA properties with power funds in the event that there were insufficient appropriations or other available funds to pay for such activities in any fiscal year. Congress did not provide any appropriations to TVA to fund such activities in 2000 and is not expected to in 2001. Consequently, during 2000, TVA paid \$72 million for essential stewardship activities primarily with power revenues, with the remainder funded by a combination of user fees and other forms of nonpower revenue and fund balances unused in prior years. TVA spent approximately \$75 million for such activities in both 1999 and 1998.

During 1999 TVA received total Federal appropriations of \$50 million, of which \$43 million was for essential stewardship

activities and \$7 million was for TVA's Land Between The Lakes National Recreation Area (LBL). During 1998 TVA received total Federal appropriations of \$70 million, of which \$63 million was for stewardship activities, including \$3 million for environmental cleanup work at the Muscle Shoals, Ala., reservation, and \$7 million was for LBL.

In addition, administrative jurisdiction over LBL was transferred to the Secretary of Agriculture effective October 1, 1999. TVA is responsible for certain transition costs associated with the transfer of LBL, which are estimated to be approximately \$10 million. This liability was accrued on the nonpower balance sheet at September 30, 1999, and partially liquidated in 2000. At September 30, 2000, TVA had transferred \$56 million of property and equipment to the U.S. Forest Service, leaving a liability of approximately \$7 million of transition costs remaining.

TVA retains responsibility for management of the remaining nonpower assets and settlement of nonpower obligations. TVA remains committed to carrying out those essential stewardship activities related to its management of the Tennessee River system and TVA properties and to the protection and equitable distribution of public benefits that are central to TVA's management of its integrated system.

#### **Accounting Standards**

TVA accounts for the financial effects of regulation in accordance with SFAS No. 71, *Accounting for the Effects of Certain Types of Regulation*. As a result, TVA records certain regulatory assets and liabilities that would not be recorded on the balance sheet under generally accepted accounting principles for nonregulated entities.

TVA has approximately \$979 million of regulatory assets (see note 1—*Other deferred charges and Debt issue and reacquisition costs*) along with approximately \$6.3 billion of deferred nuclear plants as of September 30, 2000. In the event that restructuring of the utility industry changes the application of SFAS No. 71, TVA would be required to evaluate such regulatory assets and deferred nuclear plants under the provisions of SFAS No. 121, *Accounting for the Impairment of Long-Lived Assets and Long-Lived Assets to Be Disposed Of*. SFAS No. 121 establishes criteria for evaluating and measuring asset impairments and states that regulatory assets no longer probable of recovery through future revenues be charged to earnings. Such an event may have a material adverse effect on future results of operations from the write-off of regulatory assets. However, TVA intends to seek full recovery of any regulatory assets that may result from the transition to a competitive market.

#### **New Accounting Pronouncements**

In June 1998 the Financial Accounting Standards Board (FASB) issued SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, which requires that every derivative instrument (including certain derivative instruments embedded in other contracts) be recorded on the balance sheet as either an asset or a liability measured at its fair value. The statement requires that changes in the derivative's fair value be recognized currently in earnings unless specific hedge

accounting criteria are met. In June 2000, the FASB issued SFAS No. 138, *Accounting for Certain Derivative Instruments and Certain Hedging Activities—An Amendment of FASB Statement No. 133*, further clarifying certain SFAS No. 133 implementation issues.

During 2000 TVA formed a cross-functional team to identify and evaluate business contracts and accounting transactions to determine the applicability of SFAS No. 133, and to develop required contemporaneous documentation and valuation methodologies for identified contracts to assess the effect on TVA's financial condition and results of operations upon adoption.

Effective October 1, 2000, TVA adopted the provisions of SFAS Nos. 133 and 138. Qualifying derivative contracts consisted of various purchased option contracts and certain currency and interest rate swap agreements (*see note 5—Foreign currency transactions and interest rate swap*). TVA determined the fair value of such contracts to be approximately \$51 million at October 1, 2000, by utilizing a variety of independent market sources. In accordance with SFAS No. 133, these contracts qualify for cash-flow hedge treatment. Accordingly, the effective portion of gains and losses related to such contracts is reported in accumulated other comprehensive income, while the ineffective portion is recognized through the creation of a regulatory asset/liability. The amounts accumulated in other comprehensive income and regulatory asset/liability are recognized in earnings upon settlement of the related contracts. Such treatment reflects TVA's ability and intent to account for these derivative instruments on a settlement basis for rate-making purposes. As of October 1, 2000, TVA determined the effective portion of the gains related to the derivative contracts to be approximately \$51 million, which was recorded as a cumulative-effect type transition adjustment of accumulated other comprehensive income and approximately \$0.3 million related to the ineffective portion (loss), which was recorded as a regulatory liability.

In December 1999 the Securities and Exchange Commission (SEC) issued Staff Accounting Bulletin (SAB) No. 101, *Revenue Recognition in Financial Statements*, summarizing the SEC's views in applying generally accepted accounting principles to selected revenue recognition issues. In June 2000 an amendment was issued that delays the implementation until no later than the fourth quarter of fiscal years beginning after December 15, 1999. Although TVA is not required to do so, it will comply with the statement and believes that its practices already comply with the provisions of the bulletin. Its adoption is expected to have no material impact on TVA's reported results of operations, financial position or cash flows.

The FASB is proceeding with its project regarding accounting practices related to obligations associated with the retirement of long-lived assets and issued an Exposure Draft on *Accounting for Obligations Associated with the Retirement of Long-Lived Assets* in the first quarter of 2000. The proposed Statement would be effective for financial statements issued for fiscal years beginning after June 15, 2001. A second Exposure Draft on *Accounting for the Impairment or Disposal of Long-*

*Lived Assets and for Obligations Associated with Disposal Activities* is currently out for comment. This proposed Statement would be effective for financial statements issued for fiscal years beginning after December 15, 2001. At the present time, TVA is unable to predict whether the implementation of these standards will be material to its results of operations or financial position.

#### **Nuclear Decommissioning Costs**

The FASB has undertaken a project regarding the accounting for closure and removal of long-lived assets, including the decommissioning of nuclear generating units. The FASB has reached several tentative conclusions with respect to the project; however, it is uncertain when a final statement will be issued and what impact it may ultimately have on TVA's financial position or results of operations.

TVA's accounting policy recognizes all obligations related to closure and removal of its nuclear units as incurred (*see note 1—Decommissioning costs*). The liability for closure is measured as the present value of the estimated cash flows required to satisfy the related obligation and discounted at a determined risk-free rate of interest. The corresponding charge to recognize any additional obligation is effected through the creation of a regulatory asset. In addition, earnings from decommissioning fund investments, amortization expense of the decommissioning regulatory asset and interest expense on the decommissioning liability are deferred in accordance with SFAS No. 71.

#### **Forward-Looking Information**

TVA's 2000 Annual Report contains forward-looking statements relating to future events and future performance. Any statements regarding expectations, beliefs, plans, projections, estimates, objectives, intentions or assumptions or otherwise relating to future events or performance may be forward-looking.

Some examples of forward-looking statements include statements regarding TVA's projections of future power and energy requirements, future costs related to environmental compliance, impacts of potential legislation on TVA and the likelihood of enactment of such legislation, targets for TVA's future competitive position and the impacts of pending litigation and administrative orders, such as the administrative order issued to TVA in November 1999 by the EPA. Although TVA believes that the assumptions underlying the forward-looking statements are reasonable, TVA does not guarantee the accuracy of these statements.

Numerous factors could cause actual results to differ materially from those in the forward-looking statements. These factors include, among other things, new laws, regulations and administrative orders, especially those related to restructuring of the electric power industry and various environmental matters; increased competition among electric utilities; legal and administrative proceedings affecting TVA; the financial environment; performance of TVA's generating facilities; fuel prices; the demand for electricity; weather conditions; changes in accounting standards and unforeseeable events.

## Balance Sheets

At September 30 (in millions)

Assets	Power Program		All Programs	
	2000	1999	2000	1999
Current assets				
Cash and cash equivalents	\$ 348	\$ 103	\$ 361	\$ 160
Accounts receivable	688	730	688	730
Inventories at average cost and other				
Fuel	141	178	141	178
Other	249	307	249	307
Total current assets	<b>1,426</b>	1,318	<b>1,439</b>	1,375
Property, plant and equipment				
Completed plant	30,157	29,569	31,189	30,685
Less accumulated depreciation	(9,520)	(8,762)	(9,813)	(9,074)
Net completed plant	20,637	20,807	21,376	21,611
Construction in progress	793	730	793	730
Deferred nuclear generating units	6,325	6,320	6,325	6,320
Nuclear fuel and capital leases	559	560	559	560
Total property, plant and equipment	<b>28,314</b>	28,417	<b>29,053</b>	29,221
Investment funds	<b>840</b>	731	<b>840</b>	731
Deferred charges and other assets				
Loans and other long-term receivables	144	122	176	153
Debt issue and reacquisition costs	1,302	1,188	1,302	1,188
Other deferred charges	1,155	1,610	1,155	1,610
Total deferred charges and other assets	<b>2,601</b>	2,920	<b>2,633</b>	2,951
Total assets	<b>\$ 33,181</b>	\$ 33,386	<b>\$ 33,965</b>	\$ 34,278

The accompanying notes are an integral part of these financial statements.

Liabilities and proprietary capital	Power Program		All Programs	
	2000	1999	2000	1999
Current liabilities				
Accounts payable	\$ 531	\$ 493	\$ 544	\$ 521
Accrued liabilities	200	178	200	182
Accrued interest	438	464	438	464
Discount notes	1,274	982	1,274	982
Current maturities of long-term debt	2,350	1,000	2,350	1,000
Total current liabilities	<b>4,793</b>	3,117	<b>4,806</b>	3,149
Other liabilities	<b>2,455</b>	2,156	<b>2,455</b>	2,156
Long-term debt				
Public bonds—senior	21,261	23,294	21,261	23,294
Public bonds—subordinated	1,100	1,100	1,100	1,100
Unamortized discount and other adjustments	(608)	(491)	(608)	(491)
Total long-term debt	<b>21,753</b>	23,903	<b>21,753</b>	23,903
Proprietary capital				
Appropriation investment	528	548	4,883	4,964
Retained earnings reinvested in power program	3,652	3,662	3,652	3,662
Accumulated net expense of nonpower programs	-	-	(3,584)	(3,556)
Total proprietary capital	<b>4,180</b>	4,210	<b>4,951</b>	5,070
Total liabilities and proprietary capital	<b>\$ 33,181</b>	\$ 33,386	<b>\$ 33,965</b>	\$ 34,278

## Statements of Income — Power Program

<i>For the years ended September 30 (in millions)</i>	2000	1999	1998
Operating revenues			
Sales of electricity			
Municipalities and cooperatives	\$ 5,676	\$ 5,510	\$ 5,554
Industries directly served	626	642	523
Federal agencies and other	361	357	556
Other revenue	99	86	96
Total operating revenues	<b>6,762</b>	6,595	6,729
Operating expenses			
Fuel and purchased power	1,962	1,777	1,900
Operating and maintenance	1,443	1,403	1,347
Depreciation and amortization	1,185	1,181	1,038
Tax-equivalents	308	304	264
Accelerated amortization (notes 1 and 7)	121	261	—
Total operating expenses	<b>5,019</b>	4,926	4,549
Operating income	<b>1,743</b>	1,669	2,180
Other income, net	17	10	12
Income before interest expense and cumulative effect of change in accounting principle	1,760	1,679	2,192
Interest expense			
Interest on debt	1,695	1,753	1,930
Amortization of debt discount, issue and reacquisition costs, net	94	60	84
Allowance for funds used during construction	(53)	(36)	(55)
Net interest expense	<b>1,736</b>	1,777	1,959
Cumulative effect of change in accounting principle (notes 1 and 7)	—	217	—
Net income	<b>\$ 24</b>	\$ 119	\$ 233

*The accompanying notes are an integral part of these financial statements.*

## Statements of Cash Flows

For the years ended September 30 (in millions)	Power Program			All Programs		
	2000	1999	1998	2000	1999	1998
<b>Cash flows from operating activities</b>						
Net power income	\$ 24	\$ 119	\$ 233	\$ 24	\$ 119	\$ 233
Net expense of nonpower programs	-	-	-	(28)	(96)	(91)
<b>Items not requiring (providing) cash</b>						
Depreciation and amortization	1,289	1,250	1,090	1,299	1,263	1,103
Accelerated amortization	121	261	-	121	261	-
Allowance for funds used during construction	(53)	(36)	(55)	(53)	(36)	(55)
Nuclear fuel amortization	177	177	264	177	177	264
Cumulative effect of change in accounting principle	-	(217)	-	-	(217)	-
Other, net	25	(26)	(2)	25	-	9
<b>Changes in current assets and liabilities</b>						
Accounts receivable	42	65	(95)	42	65	(89)
Inventories and other	19	(35)	(72)	19	(35)	(72)
Accounts payable and accrued liabilities	61	(19)	72	42	(21)	59
Accrued interest	(26)	(23)	(11)	(26)	(23)	(11)
Other, net	(95)	(85)	(30)	(95)	(85)	(36)
<b>Net cash provided by operating activities</b>	<b>1,584</b>	1,431	1,394	<b>1,547</b>	1,372	1,314
<b>Cash flows from investing activities</b>						
Construction expenditures	(867)	(829)	(637)	(867)	(830)	(642)
Allowance for funds used during construction	53	36	55	53	36	55
Nuclear fuel	(184)	(135)	(151)	(184)	(135)	(151)
Other, net	(37)	(28)	(9)	(38)	(21)	(8)
<b>Net cash used in investing activities</b>	<b>(1,035)</b>	(956)	(742)	<b>(1,036)</b>	(950)	(746)
<b>Cash flows from financing activities</b>						
<b>Long-term debt</b>						
Issues	2,250	4,506	4,625	2,250	4,506	4,625
Redemptions	(2,944)	(4,046)	(4,930)	(2,944)	(4,046)	(4,930)
Short-term borrowings, net	292	(775)	(394)	292	(775)	(394)
Proceeds from combustion turbine financing	300	-	-	300	-	-
Financing costs, net	(148)	(391)	199	(148)	(391)	199
Congressional appropriations	-	-	-	-	50	69
Payments to U.S. Treasury	(54)	(57)	(60)	(54)	(57)	(60)
Other, net	-	-	-	(6)	-	-
<b>Net cash used in financing activities</b>	<b>(304)</b>	(763)	(560)	<b>(310)</b>	(713)	(491)
<b>Net change in cash and cash equivalents</b>	<b>245</b>	(288)	92	<b>201</b>	(291)	77
Cash and cash equivalents at beginning of period	103	391	299	160	451	374
<b>Cash and cash equivalents at end of period</b>	<b>\$ 348</b>	\$ 103	\$ 391	<b>\$ 361</b>	\$ 160	\$ 451

The accompanying notes are an integral part of these financial statements.

## Statements of Changes in Proprietary Capital—Power Program

<i>For the years ended September 30 (in millions)</i>	2000	1999	1998
Retained earnings reinvested at beginning of period	\$ 3,662	\$ 3,580	\$ 3,387
Net income	24	119	233
Return on appropriation investment	(34)	(37)	(40)
Retained earnings reinvested at end of period	<b>3,652</b>	3,662	3,580
Appropriation investment at beginning of period	548	568	588
Return of appropriation investment	(20)	(20)	(20)
Appropriation investment at end of period	528	548	568
Proprietary capital at end of period	<b>\$ 4,180</b>	\$ 4,210	\$ 4,148

## Statements of Net Expense—Nonpower Programs

<i>For the years ended September 30 (in millions)</i>	2000	1999	1998
Water and Land Stewardship	\$ 26	\$ 72	\$ 65
Land Between The Lakes	—	19	8
Economic Development	2	5	8
Environmental Research Center	—	—	10
Net expense (note 10)	<b>\$ 28</b>	\$ 96	\$ 91

## Statements of Changes in Proprietary Capital—Nonpower Programs

<i>For the years ended September 30 (in millions)</i>	2000	1999	1998
Proprietary capital at beginning of period	\$ 860	\$ 908	\$ 930
Congressional appropriations	—	50	69
Net expense	(28)	(96)	(91)
Transfers to other Federal agencies (note 10)	(56)	—	—
Other, net	(5)	(2)	—
Proprietary capital at end of period	<b>\$ 771</b>	\$ 860	\$ 908

The accompanying notes are an integral part of these financial statements.



## 1. Summary of significant accounting policies

### General

TVA is a wholly owned corporate agency and instrumentality of the United States. It was established by the TVA Act with the objective of developing the resources of the Tennessee Valley region in order to strengthen the regional and national economy and the national defense by providing: (1) an ample supply of power within the region, (2) navigable channels and flood control for the Tennessee River System, and (3) agricultural and industrial development and improved forestry in the region. TVA carries out these regional and national responsibilities in a service area that centers on Tennessee and parts of Alabama, Georgia, Kentucky, Mississippi, North Carolina and Virginia.

TVA's operations have historically been divided into two types of activities—the power program and the nonpower programs. Substantially all TVA revenues and assets are attributable to the power program. The power program has historically been separate and distinct from the nonpower programs and is required to be self-supporting from power revenues and proceeds from the issuance of debt. The power program receives no congressional appropriations and is required to make annual payments to the U.S. Treasury in repayment of, and as a return on, the government's appropriation investment in TVA power facilities. Until 2000 most of the funding for TVA's nonpower programs was provided by congressional appropriations. Certain nonpower activities are also funded by various revenues and user fees. See note 10 for a discussion related to current and future funding of TVA's nonpower programs.

Power rates are established by the TVA Board of Directors as authorized by the TVA Act. The Act requires TVA to charge rates for power that, among other things, will produce gross revenues sufficient to provide funds for operation, maintenance and administration of its power system; payments to states in lieu of taxes; and debt service on outstanding indebtedness.

### Fiscal year

Unless otherwise indicated, years (2000, 1999, etc.) refer to TVA's fiscal years ended September 30.

### Revenue

Revenues from power sales are recorded as power is delivered to customers. TVA accrues estimated unbilled revenues for power sales provided to customers for the period of time from the end of the billing cycle to month-end.

Off-system sales are presented in the accompanying Statements of Income—Power Program as a component of Sales of electricity—Federal agencies and other.

### Property, plant and equipment, and depreciation

Additions to plant are recorded at cost, which includes direct and indirect costs and an allowance for funds used during construction. The cost of current repairs and minor replacements is charged to operating expense. Nuclear fuel is valued at the lower of cost or market using the average cost method for raw materials and the specific identification method for nuclear fuel in reactor. Amortization of nuclear fuel is calculated on a

units-of-production basis and is included in fuel expense. The TVA Act requires TVA's Board of Directors to allocate the cost of completed multipurpose projects between the power and non-power programs, subject to the approval of the President of the United States. The original cost of property retired, together with removal costs less salvage value, is charged to accumulated depreciation. Depreciation is generally computed on a straight-line basis over the estimated service lives of the various classes of assets. Depreciation expense expressed as a percentage of the average annual depreciable completed plant was 3.27 percent for 2000, 3.28 percent for 1999 and 3.23 percent for 1998.

### Decommissioning costs

TVA recognizes as incurred all obligations related to closure and removal of its nuclear units. Earnings from decommissioning investments, amortization of the decommissioning regulatory asset and interest expense on the decommissioning liability are deferred (*see note 9—Decommissioning costs*).

In 2000 TVA performed calculations in accordance with Nuclear Regulatory Commission (NRC) revised guidelines. The studies resulted in a \$209 million decrease in TVA's required decommissioning obligation which was recorded along with a corresponding reduction in the regulatory asset.

### Allowance for funds used during construction

TVA capitalizes an allowance for funds used during construction. The allowance is applicable to construction in progress, excluding deferred nuclear generating units.

### Other deferred charges

Other deferred charges primarily include prepaid pension costs and regulatory assets capitalized under the provisions of Statement of Financial Accounting Standards (SFAS) No. 71, *Accounting for the Effects of Certain Types of Regulation*.

**REGULATORY ASSETS.** At September 30, 2000, other deferred charges included total unamortized regulatory assets of \$372 million of which \$228 million represents a transition obligation for certain postemployment benefits and \$144 million represents an additional obligation related to the closure and removal of nuclear units (*see note 1—Decommissioning costs*). At September 30, 1999, the unamortized balances of regulatory assets of \$968 million included \$343 million representing a transition obligation for certain postemployment benefits; \$393 million representing an additional obligation related to the closure and removal of nuclear units (*see note 1—Decommissioning costs*); \$221 million representing an overmarket portion of nuclear fuel; and \$11 million representing TVA's portion of the costs for decommissioning the DOE's uranium enrichment facilities.

Effective for 1999 TVA reclassified an additional \$332 million from nuclear fuel inventory to deferred charges. This regulatory asset was fully amortized in 2000 (*see note 1—Accelerated amortization*). The effect of this change was to increase 1999 expense by approximately \$111 million and to increase 2000 expense by approximately \$221 million.

**ACCRUAL FOR NUCLEAR REFUELING OUTAGE COSTS.** Also effective for 1999 TVA changed its method of accounting for nuclear refueling outage maintenance costs whereby such costs are deferred and amortized on a straight-line basis over the estimated period until the next refueling outage, rather than expensed as incurred. The effect of this change was to decrease 2000 and 1999 expense by \$11 million and \$63 million, respectively.

#### **Investment funds**

Investment funds consist primarily of trust funds designated to fund nuclear decommissioning requirements (*see note 9—Decommissioning costs*). These funds are invested in portfolios of securities generally designed to earn returns in line with overall equity market performance.

#### **Debt issue and reacquisition costs**

Effective for 1999 TVA changed its method of amortizing debt issue and reacquisition costs. Under the current policy, debt issue and reacquisition expenses, call premiums and other related costs are deferred and amortized (accreted) on a pooled straight-line basis over the weighted average life of TVA's debt portfolio. Prior to 1999 debt issue and reacquisition costs were separately amortized on a straight-line basis over the term of the related outstanding securities. The effect of the change was to decrease 2000 and 1999 expense approximately \$23 million and \$20 million, respectively.

TVA has incurred premiums related to certain advanced refundings and also received and paid premiums in connection with the monetization of certain call provisions. In accordance with regulatory practices, TVA has deferred these premiums and is amortizing such premiums on a pooled straight-line basis over the weighted average life of TVA's debt portfolio. The unamortized balances of such regulatory assets at September 30, 2000 and 1999 were \$607 million and \$641 million, respectively.

#### **Tax-equivalents**

The TVA Act requires TVA to make payments to states and local governments where the power operations of the corporation are conducted. The amount is 5 percent of gross revenues from the prior year's sale of power, excluding sales to other Federal agencies and interchange sales with other utilities, with a provision for minimum payments under certain circumstances.

#### **Accelerated amortization**

Effective for 1999 TVA adopted a new accounting policy whereby annual provisions for amortization of deferred charges will be adjusted as necessary in order to achieve certain earnings levels as set forth in resolutions adopted annually by the TVA Board of Directors in connection with the rate review process. The targeted earnings levels will be based on the earnings requirements of the TVA Act and the Basic TVA Power Bond Resolution (*see note 5—Borrowing authority*). Such adjustments may result in either contracting or extending the estimated amortization periods. The amortization of such assets is principally computed on a straight-line basis, over periods ranging from three to 15 years. As a result of surplus earnings levels in 2000 and 1999, TVA accelerated

amortization of certain regulatory assets by \$121 million and \$261 million, respectively, under the policy.

#### **Interest and capital costs**

During 2000, 1999 and 1998 cash paid for interest on outstanding indebtedness (net of amount capitalized) was \$1,669 million, \$1,740 million and \$1,886 million, respectively. In addition to paying interest on outstanding indebtedness, the TVA Act requires TVA to make annual payments to the U.S. Treasury. The annual Treasury payments represent a repayment of the original appropriation investment, along with a return on the appropriation investment (*see note 4*).

#### **Risk-management activities**

TVA is exposed to market risk from changes in interest rates and currency exchange rates. To manage volatility relating to these exposures, TVA has entered into various derivative transactions, principally an interest rate swap agreement and foreign currency swap agreements (*see note 5—Foreign currency transactions and interest rate swap*). TVA is exposed to credit losses in the event of nonperformance by counterparties on the risk-management instruments. TVA monitors such risk and does not believe that there is a significant risk of nonperformance by any of the parties of these instruments. TVA's risk management policies allow the use of derivative financial instruments to manage financial exposures, but prohibit the use of these instruments for speculative or trading purposes.

TVA may engage in hedging activities using forwards, futures or options to hedge the impact of market fluctuations on energy commodity prices. As of September 30, 1999, TVA accounted for these transactions using the deferral method, and gains and losses were recognized in the accompanying financial statements when the related hedged transaction occurred. Effective October 1, 2000, TVA adopted SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, which requires that derivatives be reported at their fair market value on the statement of financial position. Qualifying derivative contracts consisted of various purchased option contracts and certain currency and interest rate swap agreements (*see note 5—Foreign currency transactions and interest rate swap*). In accordance with SFAS No. 133, these contracts qualify for cash-flow hedge treatment. Accordingly, the effective portion of gains and losses related to such contracts is reported in accumulated other comprehensive income, while the ineffective portion is recognized through the creation of a regulatory asset/liability. As of October 1, 2000, TVA determined the effective portion of the gains related to the derivative contracts to be approximately \$51 million, which was recorded as a cumulative-effect type transition adjustment of accumulated other comprehensive income and approximately \$0.3 million related to the ineffective portion (loss), which was recorded as a regulatory liability.

#### **Cash and cash equivalents**

Cash and cash equivalents include the cash available in commercial bank accounts and U.S. Treasury accounts, as well as short-term securities held for the primary purpose of general liquidity. Such securities mature within three months from the date of acquisition.

**Insurance**

TVA is primarily self-insured for property loss, workers' compensation, general liability and automotive liability. TVA is also self-insured for health care claims for eligible active and retired employees. Consulting actuaries assist TVA in determining certain liabilities for self-insured claims. TVA maintains nuclear liability insurance and nuclear property, decommissioning and decontamination insurance with an outside party (see note 9—Nuclear insurance).

**Management estimates**

The preparation of financial statements in conformity with

generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the related amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Other**

Certain reclassifications have been made to the 1998 and 1999 financial statements to conform to the 2000 presentation.

**2. Nuclear power program**

The nuclear power program at September 30, 2000, consists of nine units—five operating, three deferred and one inoperative—at four locations, with investments in property, plant and equipment as follows and in the status indicated:

<i>(dollars in millions)</i>	Operating units	Installed capacity (megawatts)	Completed plant, net	Construction in progress	Deferred	Fuel investment
Browns Ferry*	2	2,380	\$ 2,995	\$ 25	\$ –	\$ 168
Sequoyah	2	2,442	1,920	44	–	125
Watts Bar	1	1,270	6,237	14	1,719	68
Bellefonte	–	–	–	–	4,606	–
Raw materials	–	–	–	–	–	18
<b>Total</b>	<b>5</b>	<b>6,092</b>	<b>\$ 11,152</b>	<b>\$ 83</b>	<b>\$ 6,325</b>	<b>\$ 379</b>

\* Browns Ferry 1, an inoperative unit, is discussed below.

Browns Ferry 1 was taken off-line in 1985 for modifications and improvements and will continue to remain in an inoperative status until its ultimate disposition is determined. The undepreciated cost of Browns Ferry 1 of \$60 million is included in net completed plant and is being depreciated as part of the recoverable cost of the plant over the remaining license period.

TVA has three units in deferred status. In 1988 TVA suspended construction activities on Watts Bar 2, and the unit is currently in lay-up. Bellefonte 1 and 2 were deferred in 1988 and 1985, respectively. Estimated 2001 expenditures for the three deferred units are limited to lay-up, maintenance and ensuring that options remain viable.

In December 1994 TVA determined it will not, by itself, complete Bellefonte 1 and 2 and Watts Bar 2 as nuclear units. TVA's integrated resource planning process identified as a viable option the conversion of the Bellefonte facility to a combined-

cycle plant utilizing natural gas or gasified coal. In 1997 an independent team of technical and financial experts completed a feasibility study to evaluate options for the conversion of the Bellefonte Nuclear Plant to a fossil fuel-fired plant. The feasibility study concluded that one of the most economical fossil conversion strategies is to complete Bellefonte as a natural gas-fired combined-cycle plant. TVA also issued an Environmental Impact Statement (EIS) assessing the environmental impacts of various fossil conversion options. The EIS identified the natural gas-fired combined-cycle plant alternative as the preferred option. Bellefonte remains in a deferred status.

While the future decisions on TVA's deferred units will ultimately impact the method of cost recovery, the TVA Board has determined that it will establish rate adjustments and operating policies to seek full recovery of the cost of these units and compliance with the requirements of the TVA Act.

**3. Completed plant—power program**

Completed plant of the power program consists of the following at September 30:

<i>(in millions)</i>	2000			1999		
	Cost	Accumulated depreciation	Net	Cost	Accumulated depreciation	Net
Fossil plants	\$ 8,150	\$ 3,616	\$ 4,534	\$ 7,983	\$ 3,407	\$ 4,576
Nuclear plants	14,719	3,567	11,152	14,705	3,142	11,563
Transmission	3,473	1,154	2,319	3,384	1,091	2,293
Hydro plants	1,517	536	981	1,486	514	972
Other	2,298	647	1,651	2,011	608	1,403
<b>Total</b>	<b>\$ 30,157</b>	<b>\$ 9,520</b>	<b>\$ 20,637</b>	<b>\$ 29,569</b>	<b>\$ 8,762</b>	<b>\$ 20,807</b>

## 4. Appropriation investment—power program

The TVA Act requires TVA to make annual payments to the U.S. Treasury from net power proceeds as a return on the appropriations investment in the power system and as a repayment of that investment. The payments required by the TVA Act may be deferred under certain circumstances for not more than two years. TVA paid \$20 million each year for 2000, 1999 and 1998 as a repayment of the appropriation investment. In addition,

TVA paid \$34 million to the U.S. Treasury in 2000 as a return on the appropriation investment, while paying \$37 million in 1999 and \$40 million in 1998. The return is based on the appropriation investment as of the beginning of the year and the computed average interest rate payable by the U.S. Treasury on its total marketable public obligations as of the same date (6.34 percent at September 30, 1999).

## 5. Debt

### Borrowing authority

The TVA Act authorizes TVA to issue bonds, notes and other evidences of indebtedness up to a total of \$30 billion outstanding at any one time. TVA must meet certain financial tests that are contained in the TVA Act and the Basic TVA Power Bond Resolution. Debt service on these obligations, which is payable solely from TVA's net power proceeds, has precedence over the payment to the U.S. Treasury described in note 4.

### Short-term debt

The weighted average rates applicable to short-term debt outstanding in the public market as of September 30, 2000 and 1999, were 6.53 percent and 5.30 percent, respectively. During 2000, 1999 and 1998 the maximum outstanding balances of short-term borrowings held by the public were (in millions) \$3,943, \$4,701 and \$2,914, respectively, and the average amounts (and weighted average interest rates) of such borrowings were approximately (in millions) \$2,628 (5.94 percent), \$1,945 (5.01 percent) and \$2,234 (5.58 percent), respectively.

### Put and call options

Bond issues of \$7.3 billion held by the public are redeemable in whole or in part, at TVA's option, on call dates ranging from the present to July 2020 at call prices ranging from 100 percent to 106.7 percent of the principal amount. Additionally, TVA has bond issues of \$3.1 billion held by the public that are redeemable in whole or in part at the option of the respective bondholders as follows. One bond issue totaling \$500 million, which matures in July 2045, is redeemable in 2001 by the bondholders. A second issue totaling \$121 million, which matures in April 2036, is redeemable in 2006 at the option of the bondholders. A third issue totaling \$1.5 billion, which matures in April 2036, is redeemable in 2006 at the option of the bondholders, and a fourth issue totaling \$1.0 billion, which matures in May 2012, is redeemable in 2002 at the option of the bondholders. Each of these four issues is reported in the debt schedule with maturity dates corresponding to the earliest redeemable dates. Six additional issues totaling \$500 million, with maturity dates ranging from

2005 to 2030, include a provision for a right of redemption upon the death of a beneficial owner in certain specified circumstances.

Additionally, TVA has two issues of Puttable Automatic Rate Reset Securities (PARRS) outstanding. The bonds permit TVA, after a fixed-rate period of five years, to reset the coupon rate downward under certain market conditions. Investors have the option to redeem the bonds at par if and when the interest rate is reset. One PARRS issue totals \$575 million, matures in June 2028 and has its first potential reset date in June 2003. The second issue of PARRS totals \$525 million, matures in May 2029 and has its first potential reset date in May 2004.

### Foreign currency transactions and interest rate swap

During 1996 TVA entered into a currency swap contract as a hedge for a foreign currency denominated debt transaction. TVA issued DM1.5 billion of bonds and swapped the cash flows for those of a U.S. dollar obligation of \$1 billion. TVA also entered into a currency swap contract during 1999 as a hedge for a Sterling denominated debt transaction where TVA issued £200 million of bonds in that transaction. Any gains or losses on the debt instruments due to the foreign currency transactions are offset by losses or gains on the swap contracts. At September 30, 2000 and 1999, the currency transactions resulted in net deferred gains of \$360 million and \$182 million, respectively, which are included in the account "unamortized discount and other adjustments." The offsetting losses on the swap contracts are recorded as a deferred liability. If any loss/(gain) were to be incurred as a result of the early termination of a swap contract, any resulting charge/(income) would be amortized over the remaining life of the bond as a component of interest expense.

Additionally, in 1997 TVA issued \$300 million of inflation-indexed accreting principal bonds. The 10-year bonds have a fixed coupon rate that is paid on the inflation-adjusted principal amount. TVA hedged its inflation exposure under the securities through a 10-year fixed interest rate swap agreement.

Debt outstanding at September 30, 2000 and 1999, consists of the following:

<i>(in millions)</i>	2000	1999
Short-term debt		
Discount notes (net of discount)	\$ 1,274	\$ 982
Current maturities of long-term debt—5.00% to 6.50%	2,350	1,000
Total short-term debt	3,624	1,982
Long-term debt		
Senior		
Maturing in 2001—5.00% to 6.50%	-	2,350
Maturing in 2002—6.00%	2,000	1,000
Maturing in 2003—6.125%	1,250	1,250
Maturing in 2004—5.00%	400	400
Maturing in 2005—6.375% to 7.150%	2,065	2,000
Maturing in years 2006 through 2044—5.375% to 8.250%	15,546	16,294
Subordinated		
Maturing in 2045 and 2046—7.50% to 8.00%	1,100	1,100
Total long-term debt	22,361	24,394
Unamortized discount and other adjustments	(608)	(491)
Net long-term debt	21,753	23,903
Total debt	<b>\$ 25,377</b>	<b>\$ 25,885</b>

## 6. Fair value of financial instruments

TVA uses the methods and assumptions described below to estimate the fair values of each significant class of financial instrument. The fair market value of the financial instruments held at September 30, 2000, may not be representative of the actual gains or losses that will be recorded when these instruments mature or if they are called or presented for early redemption.

### Cash and cash equivalents and short-term debt

The carrying amount approximates fair value because of the short-term maturity of these instruments.

### Investment funds

At September 30, 2000, these investments were classified as trading securities and carried at their fair value.

### Loans and other long-term receivables

Fair values for these homogeneous categories of loans and

receivables are estimated by determining the present value of future cash flows using a discount rate equal to lending rates for similar loans made to borrowers with similar credit ratings and for the same remaining maturities.

### Long-term debt

Fair value of long-term debt traded in the public market is determined by multiplying the par value of the bonds by the quoted market price (asked price) nearest the balance sheet date.

### Other financing obligations

In September 2000 TVA received approximately \$300 million in proceeds by entering into a lease-lease back transaction for eight new peaking combustion turbine units. Due to the nature of the recent refinancing transaction, the carrying amount of the obligation and fair market value are equal.

The estimated values of TVA's financial instruments at September 30 are as follows:

<i>(in millions)</i>	2000		1999	
	Carrying amount	Fair amount	Carrying amount	Fair amount
Cash and cash equivalents	\$ 361	\$ 361	\$ 160	\$ 160
Investment funds	840	840	731	731
Loans and other long-term receivables	176	176	153	153
Short-term debt	1,274	1,274	982	982
Long-term debt, including current maturities	24,711	23,840	25,394	24,598
Other financing obligations	300	300	-	-

## 7. Benefit Plans

### Pension plan

TVA has a defined benefit plan for most annual employees that provides two benefit structures: the Original Benefit Structure and the Cash Balance Benefit Structure. The plan is controlled and administered by a legal entity separate from TVA, the TVA Retirement System (TVARS), which is governed by its own independent board of directors. The plan assets are primarily stocks and bonds. TVA contributes to the plan such amounts as are agreed upon between the TVA and the TVARS boards of directors, which in no event is less than the amount necessary on an actuarial basis to provide assets sufficient to meet obligations for benefits. No TVA contribution is legally required when the plan's assets are sufficient to meet its accrued liabilities, as determined by an independent outside actuary. This situation has existed for several years.

The pension benefit for a member participating in the Original Benefit Structure is based on the member's years of creditable service, average base pay for the highest three consecutive years and the pension factor for the member's age and years of service, less a Social Security offset.

The pension benefit for a member participating in the Cash Balance Benefit Structure is based on credits accumulated in the member's account and member's age. A member's account receives credits each pay period equal to 6.0 percent of his or her straight-time earnings. The account also increases at an interest rate equal to the change in the Consumer Price Index (CPI) plus 3.0 percent, which amounted to 5.8 percent in 1998. During 1999 plan amendments were effected such that the interest rate may not be less than 6.0 percent nor more than 10.0 percent. The actual changes in the CPI for 2000 and 1999 were 2.0 percent and 1.6 percent, respectively, resulting in the minimum of 6.0 percent for each year.

TVARS also maintains a defined contribution plan, a 401(k) plan, to which TVA makes matching contributions of 25 cents on the dollar (up to 1.5 percent of pay) for members participating in the Original Benefit Structure and of 75 cents on the dollar (up to 4.5 percent of pay) for members participating in the Cash Balance Benefit Structure.

During 1999 TVA changed its accounting policy for the method of determining the market-related value of pension assets, resulting in a one-time gain of approximately \$217 million. This gain is presented on the Statement of Income under the caption "Cumulative effect of change in accounting principle."

The discount rate used to determine the actuarial present value of the projected benefit obligation was 8.0 percent in 2000, 7.5 percent in 1999 and 7.0 percent in 1998. The assumed annual rates of increase in future compensation levels for 2000, 1999 and 1998 ranged from 3.3 to 8.3 percent. The expected long-term rate of return on plan assets was 10.0 percent for 2000 and 1999 and 11.0 percent for 1998.

During 2000, plan amendments were effected such that certain pension benefits were enhanced, resulting in approximately \$250 million in additional pension plan benefit obligations.

### Other postretirement benefits

TVA sponsors an unfunded postretirement plan that provides for nonvested contributions toward the cost of certain retirees' medical coverage. This plan formerly covered all retirees partic-

ipating in the TVA medical plan, and TVA's contributions were a flat dollar amount based upon the participants' age and years of service and certain payments toward the plan costs. This plan now operates on a much more limited basis, only for certain retirees and surviving dependents who do not qualify for TVARS benefits.

During 2000 these postretirement benefits were enhanced to help covered retirees offset the cost of medical coverage, resulting in approximately \$16 million in additional postretirement benefit obligations.

The annual assumed cost trend for covered benefits is 9.0 percent in 2000, decreasing by one-half percent per year to a level of 5.0 percent in 2008 and thereafter. For 1999 and 1998, annual trend rates of 9.5 percent and 10.0 percent, respectively, were assumed. The effect of the change in assumptions of the cost basis was not significant. Increasing/(reducing) the assumed health-care cost trend rates by 1 percent would increase/(reduce) the accumulated postretirement benefit obligation (APBO) as of September 30, 2000, by \$9 million/(\$8 million) and the aggregated service and interest cost components of net periodic postretirement benefit cost for 2000 by \$2 million/(\$1 million).

The weighted average discount rate used in determining the APBO was 8.0 percent for 2000, 7.5 percent for 1999 and 7.0 percent for 1998. Any net unrecognized gain or loss resulting from experience different from that assumed or from changes in assumptions, and which is in excess of 10 percent of the APBO, is amortized over the average remaining service period of active plan participants.

### Other postemployment benefits

Other postemployment benefits include workers' compensation provided to former or inactive employees, their beneficiaries and covered dependents for the period after employment but before retirement. Adoption of SFAS No. 112, *Employers Accounting for Postemployment Benefits*, in 1995 changed TVA's method of accounting practice from recognizing costs as benefits are paid to accruing the expected costs of providing these benefits. In connection with the adoption of SFAS No. 112 and related approval by its Board of Directors, TVA recorded the transition obligation as a regulatory asset. The regulatory asset is being amortized over approximately 15 years, whereby the annual expense will approximate the expense that would have been recorded on an as-paid basis. In 2000 TVA accelerated amortization of the regulatory asset approximately \$80 million in accordance with its accounting policy as previously described (*see note 1—Accelerated amortization*).

The components of pension expense and other postretirement benefits expense for the years ended September 30 are:

<i>(in millions)</i>	Pension Benefits		Other Postretirement Benefits	
	2000	1999	2000	1999
Change in benefit obligation				
Benefit obligation at beginning of year	\$ 5,031	\$ 5,645	\$ 151	\$ 206
Service cost	76	94	5	5
Interest cost	367	374	11	14
Plan participants' contributions	32	34	–	–
Amendments, including other events	250	–	16	(48)
Actuarial (gain)/loss	20	(853)	(33)	(3)
Net transfers to variable fund/401(k) plan	(23)	(1)	–	–
Expenses paid	(3)	(3)	–	–
Benefits paid	(289)	(259)	(17)	(23)
Benefit obligation at end of year	<b>\$ 5,461</b>	\$ 5,031	<b>\$ 133</b>	\$ 151
Change in plan assets				
Fair value of plan assets at beginning of year	\$ 6,842	\$ 5,968	\$ –	\$ –
Adjustment to reconcile to system asset value	(13)	5	–	–
Actual return on plan assets	764	1,098	–	–
Plan participants' contributions	32	34	–	–
Net transfers to variable fund/401(k) plan	(23)	(1)	–	–
Employer contributions	3	–	17	23
Expenses paid	(4)	(3)	–	–
Benefits paid	(289)	(259)	(17)	(23)
Fair value of plan assets at end of year	<b>\$ 7,312</b>	\$ 6,842	<b>\$ –</b>	\$ –
Funded status	\$ 1,851	\$ 1,811	\$ (133)	\$ (151)
Unrecognized net actuarial (gain)/loss	(1,649)	(1,540)	(32)	1
Unrecognized prior service cost	492	266	(48)	(70)
Prepaid (accrued) benefit cost	<b>\$ 694</b>	\$ 537	<b>\$ (213)</b>	\$ (220)

<i>(in millions)</i>	Pension Benefits			Other Postretirement Benefits		
	2000	1999	1998	2000	1999	1998
Components of net periodic benefit cost						
Service cost	\$ 76	\$ 94	\$ 67	\$ 5	\$ 5	\$ 8
Interest cost	367	374	328	11	14	26
Expected return on plan assets	(602)	(591)	(479)	n/a	n/a	n/a
Amortization of prior service cost	24	24	–	(6)	(2)	–
Amortization of transition obligation	–	–	–	–	–	–
Recognized net actuarial loss	(19)	–	–	–	–	–
Net periodic benefit cost	(154)	(99)	(84)	10	17	34
Other events	–	(217)	111	–	–	(121)
Total benefits cost/(income)	<b>\$ (154)</b>	\$ (316)	\$ 27	<b>\$ 10</b>	\$ 17	\$ (87)

## 8. Major customers

Five municipal customers purchase power from TVA under long-term contracts, which require 10 years' notice to terminate.

These customers account for an aggregate of total power sales as follows: 27 percent for 2000 and 1999 and 29 percent for 1998.

## 9. Commitments and contingencies

### Commitments

**LEASES.** Certain property, plant and equipment are leased under agreements with terms ranging from one to 30 years. Most of the agreements include purchase options or renewal options that cover substantially all the economic lives of the properties. Obligations under capital lease agreements in effect at September 30, 2000, total \$36 million annually through 2005, and an aggregate of \$193 million thereafter, for a total commitment of \$373 million. Of this amount, \$192 million is interest.

**CONSTRUCTION COMMITMENTS.** TVA has entered into approximately \$600 million in long-term commitments consisting of the purchase of generating assets of approximately \$450 million and major maintenance expenditures of \$150 million. Terms of the contracts extend into 2003.

**FUEL PURCHASE COMMITMENTS.** TVA has entered into approximately \$4 billion in long-term commitments ranging in terms of up to six years for the purchase of coal, and approximately \$1 billion in long-term commitments ranging in terms of up to ten years for the purchase and fabrication of uranium.

**PURCHASED POWER.** TVA has entered into an agreement for the purchase of power from a 440 megawatt, lignite-fired electrical generating plant. The agreement calls for TVA to purchase the plant's output for a 30-year period beginning on the date of first generation expected in 2001. Pricing of the contract includes fixed and variable components with minimum estimated power purchases approximating \$4 billion over the life of the contract.

### Contingencies

**NUCLEAR INSURANCE.** The Price-Anderson Act sets forth an indemnification and limitation of liability plan for the U.S. nuclear industry. All NRC licensees, including TVA, maintain nuclear liability insurance in the amount of \$200 million for each plant with an operating license. The second level of financial protection required is the industry's retrospective assessment plan, using deferred premium charges. The maximum amount of the deferred premium for each nuclear incident is approximately \$88 million per reactor, but not more than \$10 million per reactor may be charged in any one year for each incident. TVA could be required to pay a maximum of \$528 million per nuclear incident on the basis of its six licensed units, but it would have to pay no more

than \$60 million per incident in any one year.

In accordance with NRC regulations, TVA carries property and decontamination insurance of \$1.06 billion at each licensed nuclear plant for the cost of stabilizing or shutting down a reactor after an accident. Some of this insurance may require the payment of retrospective premiums of up to a maximum of approximately \$16 million.

**CLEAN AIR LEGISLATION.** Title IV of the Clean Air Act Amendments (CAAA) of 1990 requires coal-fired generation units to reduce their sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>) emissions in two phases in order to control acid rain. The Phase I compliance period commenced on January 1, 1995, for SO<sub>2</sub> and January 1, 1996, for NO<sub>x</sub>, while the Phase II compliance period commenced on January 1, 2000. Based on the level of emissions, 26 of TVA's 59 operating coal-fired units are classified as Phase I units, with the remaining units being Phase II units. Compliance with these requirements has resulted in substantial expenditures for the reduction of emissions at TVA's coal-fired generating plants.

TVA's strategy for complying with the 1990 CAAA includes the use of scrubbers at two fossil units and the use of lower-sulfur coal at other fossil units to reduce SO<sub>2</sub> emissions. TVA has completed all planned scrubbers and is on schedule to complete the changeover to lower-sulfur coal.

NO<sub>x</sub> reductions were required for 58 of TVA's 59 coal-fired units. The only TVA unit for which NO<sub>x</sub> reductions are not required under the 1990 CAAA is the Atmospheric Fluidized Bed Unit 10 at TVA's Shawnee Fossil Plant. The NO<sub>x</sub> reductions for the other 58 units were achieved through the installation of low-nitrogen-oxide burners (LNBs) and/or over-fire air at 40 units and boiler optimization on the remaining 18 TVA units. In 1996 TVA selected an early election option for four of these 58 units, allowing the four units at John Sevier Fossil Plant to be limited to Phase I NO<sub>x</sub> levels through 2007. In 2008 these four units will have to meet lower Phase 2 NO<sub>x</sub> levels. For the remaining 54 units, TVA has elected to average NO<sub>x</sub> emissions to meet a 54 unit NO<sub>x</sub> averaging plan. This averaging plan option lets TVA optimize the cost of NO<sub>x</sub> reductions while being in full compliance with the 1990 CAAA Title IV NO<sub>x</sub> requirements. In addition to TVA's Title IV projects during 2000, TVA also completed installation of the first selective catalytic reduction system (SCR) on the TVA power



system. SCRs are state-of-the-art NO<sub>x</sub> emission-control technology. Seventeen other SCRs are planned to be installed on 24 more TVA units. This follows up on a commitment TVA made to further reduce NO<sub>x</sub> emissions on its system. Installation of these SCRs will also comply with the Environmental Protection Agency's (EPA) recent section 110 State Implementation Plan NO<sub>x</sub> Reduction rule.

Expenditures related to the Clean Air projects during 2000 and 1999 were approximately \$125 million and \$77 million, respectively. The cost of the SCR strategy is estimated to be between \$800 million and \$900 million. The total cost of compliance cannot reasonably be determined at this time because of the uncertainties surrounding emerging EPA regulations, resultant compliance strategies, potential for development of new emission control technologies, court litigation and future amendments to the Clean Air Act, but the total cost could exceed \$2.5 billion.

EPA is investigating whether coal-fired utilities in the eastern U.S., including TVA, may have modified their coal-fired boilers without complying with new source review requirements. The outcome of this investigation is ongoing and uncertain. TVA contends EPA's investigation is based on a new interpretation of an old rule and that TVA has routinely maintained its power plants to ensure efficient, reliable power generation while complying with all requirements. However, EPA has issued TVA an administrative order directing TVA to put new source controls on 14 of its units and to evaluate whether more controls should be installed on other units. TVA has challenged the validity of this order and the Eleventh Circuit Court of Appeals has stayed the order pending its review. It is not possible to predict with certainty what impact implementation of EPA's order would have on TVA if TVA's challenge is unsuccessful. If EPA substantially prevails, TVA could be required to incur capital costs in excess of \$3 billion (net present value) by 2010 to 2015. Any additional controls that TVA could be required to install on units as a result of this matter would, however, also be sufficient to comply with reduction requirements that are anticipated under other air quality programs discussed above. Thus, because of the other environmental program requirements, TVA would, in any event, likely have to incur a substantial portion of the costs that might result from the EPA enforcement action, albeit the schedule for the installation of the controls could be substantially accelerated by the EPA enforcement action. TVA fully supports the need to further reduce emissions from coal-fired plants and seeks a resolution that will not put TVA customers and the region at a disadvantage.

**HAZARDOUS SUBSTANCES.** The release and cleanup of hazardous substances are regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). In a manner similar to many other industries and power systems, TVA has generated or used hazardous substances over the years. TVA has been identified as a potentially responsible party with respect to four off-site disposal areas. TVA's liability at these sites has not yet been determined. In addition, TVA is

currently investigating one other TVA-owned site under a state statute similar to CERCLA. TVA may have cleanup responsibilities at this site by virtue of its control of the property. TVA's potential liabilities for its share of cleanup costs at all of these sites are uncertain but are not expected to have a significant impact on TVA's financial position or results of operations.

**PENDING LITIGATION.** EPA has issued TVA an administrative order directing TVA to put new source controls on 14 of its units and to evaluate whether more controls should be installed on other units. TVA has challenged the validity of this order. It is not possible to predict with certainty what impact implementation of EPA's order would have on TVA if TVA's challenge is unsuccessful. If EPA substantially prevails, TVA could be required to incur capital costs in excess of \$3 billion (net present value) by 2010 to 2015 in order to implement EPA's order.

TVA is a party to various civil lawsuits and claims that have arisen in the ordinary course of its business. Although the outcome of these other lawsuits and claims cannot be predicted with any certainty, it is the opinion of TVA counsel that the ultimate outcome should not have a material adverse effect on TVA's financial position or results of operations.

**DECOMMISSIONING COSTS.** Provision for decommissioning costs of nuclear generating units is based on the estimated cost to dismantle and decontaminate the facilities to meet NRC criteria for license termination. The Financial Accounting Standards Board (FASB) has reached several tentative conclusions with respect to its project regarding the accounting for closure and removal of long-lived assets, including the decommissioning of nuclear generating units. Effective for 1998 TVA changed its method of accounting for decommissioning costs and related liabilities in order to comply with certain of the FASB's tentative conclusions, as well as certain rate-setting actions. The FASB issued an exposure draft in the first quarter of 2000; however, it is uncertain when a final statement will be issued and what impact it may ultimately have on TVA's financial position or results of operations.

TVA recognizes as incurred all obligations related to closure and removal of its nuclear units. The liability for closure is measured as the present value of the estimated cash flows required to satisfy the related obligation and discounted at a determined risk-free rate of interest. The charge to recognize any additional obligation is effected by adjusting the corresponding regulatory asset. Earnings from decommissioning fund investments, amortization expense of the decommissioning regulatory asset and interest expense on the decommissioning liability are deferred in accordance with SFAS No. 71, *Accounting for the Effects of Certain Types of Regulation*. In 2000 TVA performed engineering studies in accordance with NRC revised guidelines. The studies resulted in a \$209 million decrease in TVA's required decommissioning obligation, which was recorded along with a corresponding reduction in the regulatory asset. At September 30, 2000, the present value of the estimated future decommissioning cost of \$742 million

is included in other liabilities; the unamortized regulatory asset of \$144 million is included in deferred charges. The decommissioning cost estimates from the 2000 study are based on prompt dismantlement and removal of the plant from service. The actual decommissioning costs may vary from the estimates because of changes in the assumed dates of decommissioning, changes in regulatory requirements, changes in technology and changes in the cost of labor, materials and equipment.

TVA maintains an investment trust fund to provide funding for the decommissioning of nuclear power plants. As of September 30, 2000, the decommissioning trust fund investments totaled \$833 million and were invested in securities designed to achieve a return in line with overall equity market performance.

Effective November 23, 1998, the NRC amended its regulations regarding decommissioning funding. These regulations require TVA to provide financial assurance for decommissioning funding through the use of certain prescribed mechanisms such as the trust agreements with independent money managers entered into by TVA in May 1997. These new regulations did not have a material impact on TVA's financial position or results of operations.

**COST-BASED REGULATION.** As a regulated entity, TVA is subject to the provisions of SFAS No. 71, *Accounting for the Effects of Certain Types of Regulation*. Accordingly, TVA records certain assets and liabilities that result from the effects of the ratemaking process that would not be recorded under generally accepted accounting principles for nonregulated entities. Currently, the electric utility industry is predominantly regulated on a basis designed to recover the cost of providing electric power to its customers. If cost-based regulation were to be discontinued in the industry for any reason, profits could be reduced and utilities might be required to reduce their asset balances to reflect a market basis less than cost. Discontinuance of cost-based regulation would also require affected utilities to write-off their associated regulatory assets. Such regulatory assets for TVA total approximately \$979 million at September 30, 2000, along with approximately \$6.3 billion of deferred nuclear plants. Management cannot predict the potential impact, if any, of the change in the regulatory environment on TVA's future financial position and results of operations.

## 10. Nonpower programs

Certain TVA activities formerly referred to as "nonpower" programs provide various public services, including managing navigable river channels, providing flood control and overseeing recreation facilities. TVA's responsibilities include general stewardship of land, water and wildlife resources.

Funding for the nonpower programs had historically been primarily provided through Federal appropriations. Certain nonpower program activities have also been funded by user fees and outside services revenues. In 1999 TVA received total Federal appropriations of approximately \$50 million, of which \$43 million was for stewardship activities and \$7 million was for TVA's Land Between the Lakes National Recreation Area (LBL). During 1998 TVA received total Federal appropriations of approximately \$70 million, of which \$63 million was for stewardship activities, including \$3 million for the environmental clean-up work at the Muscle Shoals, Ala., reservation, and \$7 million was for LBL. As discussed below, TVA received no Federal appropriations in 2000.

In October 1997, Congress passed legislation that directed TVA to fund essential stewardship activities related to its management of the Tennessee River system and TVA properties with power funds in the event that there were insufficient appropriations or other available funds to pay for such activities in any year. Congress did not provide any appropriations to TVA to fund such activities in 2000. Consequently, during 2000, TVA paid \$72 million for essential stewardship activities primarily

with power revenues, with the remainder funded with user fees, other forms of nonpower revenues and nonpower fund balances unused in prior years. In addition, administrative jurisdiction over LBL was transferred to the Secretary of Agriculture effective October 1, 1999. TVA is responsible for certain transition costs associated with the transfer of LBL, estimated to be approximately \$7 million at September 30, 2000. TVA retains responsibility for management of the remaining nonpower assets and settlement of nonpower obligations.

At September 30, 2000, TVA had transferred \$56 million of property and equipment to the U.S. Forest Service. After this transfer the completed plant of the nonpower programs consists of multipurpose dams and other plant. At September 30, 2000, the net completed plant balances for multipurpose dams and other plant were \$683 million and \$57 million, respectively. At September 30, 1999, the net completed plant balances for multipurpose dams and other plant were \$692 million and \$112 million, respectively.

## Report of Independent Accountants

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To the Board of Directors of the Tennessee Valley Authority

In our opinion, the accompanying balance sheets (power program and all programs) and the related statements of income (power program), changes in proprietary capital (power program and nonpower programs), net expense (nonpower programs) and of cash flows (power program and all programs) present fairly, in all material respects, the financial position of the power program and all programs of the Tennessee Valley Authority as of September 30, 2000 and 1999, the results of operations of the power program and nonpower programs and cash flows of the power program and all programs for each of the three years in the period ended September 30, 2000, in conformity with accounting principles generally accepted in the United States. These financial statements are the responsibility of the Tennessee Valley Authority's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States and *Government Auditing Standards* issued by the Comptroller General of the United States, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts

and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above. We have also issued our report dated October 24, 2000, on TVA's compliance with laws and regulations and internal control over financial reporting. That report is an integral part of our audit conducted under *Government Auditing Standards* that should be read along with this report on the financial statements.

As discussed in note 7 to the financial statements, TVA changed its method for determining the market-related value of pension assets in 1999.

*PricewaterhouseCoopers LLP*

PricewaterhouseCoopers LLP  
Knoxville, Tennessee  
October 24, 2000

## Report of Management

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Management is responsible for the preparation, integrity and objectivity of the financial statements of the Tennessee Valley Authority as well as all other information contained in the annual report. The financial statements have been prepared in conformity with generally accepted accounting principles applied on a consistent basis and, in some cases, reflect amounts based on the best estimates and judgments of management, giving due consideration to materiality. Financial information contained in the annual report is consistent with that in the financial statements.

The Tennessee Valley Authority maintains an adequate system of internal controls to provide reasonable assurance that transactions are executed in accordance with management's authorization, that financial statements are prepared in accordance with generally accepted accounting principles, and that the assets of the corporation are properly safeguarded. The system of internal controls is documented, evaluated and tested on a continuing basis. No internal control system can provide absolute assurance that errors and irregularities will not occur due to the inherent limitations of the effectiveness of internal controls; however, management strives to maintain a balance, recognizing that the cost of such a system should not exceed the benefits derived. No material internal control weaknesses have been reported to management.

PricewaterhouseCoopers LLP was engaged to audit the financial statements of the Tennessee Valley Authority and issue reports thereon. Its audits were conducted in accordance with generally accepted auditing standards. Such standards require a review of internal controls and an examination of selected transactions and other procedures sufficient to provide reasonable assurance that the financial statements neither are misleading nor contain material errors. The Report of Independent Accountants does not limit the responsibility of management for information contained in the financial statements and elsewhere in the annual report.

*David N. Smith*

David N. Smith  
Chief Financial Officer  
and Executive Vice President of Financial Services

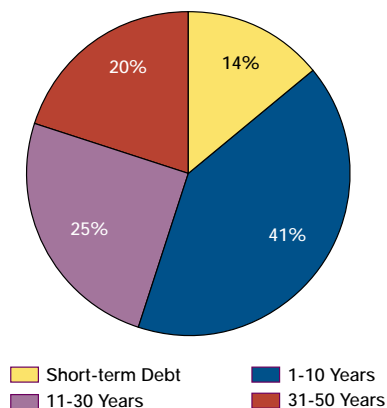
### Earnings Objective

TVA is a corporation wholly owned by the U.S. government that primarily finances its capital requirements through internally generated funds and by issuing debt. Consistent with its Federal charter, TVA's objective is to deliver a reliable supply of power to its customers at the lowest feasible cost. TVA operates much like a nonprofit corporation, so it does not accumulate a large amount of retained earnings. TVA is not authorized to issue equity securities.

### Financing Goal

TVA's financing goal is to offer unique investment opportunities that provide exceptional value for both the investor and TVA.

### Debt Maturities



### Investor Base

TVA issues a variety of debt securities in U.S. dollars and other currencies targeted to institutional and individual investors around

the world. TVA's 370,000 individual and institutional investors reside in all 50 states and in 35 countries.

### Key Strengths of TVA Securities

Although TVA securities are not obligations of or guaranteed by the U.S. government, TVA's rated securities receive the highest rating from Moody's and Standard and Poor's (Aaa/AAA), which is derived from TVA's status as a wholly owned corporate agency of the U.S. government and its key credit strengths. These strengths include the requirements that holders of power bonds are given first pledge of payment from net power proceeds and that TVA charge electricity rates sufficient to ensure the full payment of annual debt service as well as to cover operating and capital costs. Also, the TVA Board, appointed by the President and confirmed by the Senate, has the sole authority to set power rates. TVA securities may be issued only to provide capital for its power program or to refund existing indebtedness.

### Investment Opportunities

TVA designs and markets debt in a variety of innovative structures, including QIDS (Quarterly Income Debt Securities), PARRS (Putable Automatic Rate Reset Securities), discount notes and an assortment of other debt securities. As of September 30, 2000, TVA had 36 long-term public debt issues outstanding, totaling \$24 billion.

### Securities Listing

All of TVA's bonds are publicly held and several are listed and traded on the bond market of the New York Stock Exchange. TVA's QIDS and PARRS issues are listed and traded on the New York Stock Exchange under the symbols TVA, TVB, TVC and TVE.

### Form and Denomination

Security	Book-Entry Form	Denomination*	Interest Payments
QIDS (2 issues)	The Depository Trust Corporation	\$25	Quarterly
PARRS (2 issues)	The Depository Trust Corporation	\$25	Quarterly
QUINTS (Quarterly Income Tiered Securities - 5 issues)	Federal Reserve Bank System	\$1,000	Quarterly
1998 Series A Estate Feature	Federal Reserve Bank System	\$1,000	Quarterly
1998 Series H Global	The Depository Trust Corporation	£1,000	Semi-annual
1996 Series C Global	The Depository Trust Corporation	DM1,000	Annual
Other Securities (24 issues)	Federal Reserve Bank System	\$1,000	Semi-annual

\* Market prices and broker policies may require that investors pay more or less than par value for the security. To receive a complete listing of TVA securities, call Investor Relations at 1-888-882-4975.

### For More Information

#### Mailing Address

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 Senior Manager, Investor Relations  
 Tennessee Valley Authority  
 400 West Summit Hill Drive  
 Knoxville, Tennessee 37902

#### Web Site and E-mail Address

www.tva.com/finance  
 investor@tva.com

#### Phone/Fax Numbers

1-888-882-4975 (toll-free in the U.S.)  
 1-888-882-4967 (toll-free outside the U.S.)  
 Fax: 865-632-3225

#### E-mail Alert

E-mail alerts are messages that are conveniently delivered to a subscriber's e-mail address when certain new information is posted to TVA's Investor Resources Web pages. To learn more about how to subscribe to e-mail alerts, visit TVA's Web site at www.tva.com/finance.

THE *board*

**Craven Crowell, Chairman**, is in the eighth year of a nine-year term as Chairman of TVA's Board . . . appointed by President Clinton in 1993 to be TVA's 11th Chairman . . . 17 years of service at TVA, including tenure as an officer and member of the corporation's top management team . . . has promoted a return to TVA's history of operational excellence and a program of financial strength and debt reduction . . . also serves as Chairman of the Board of the Electric Power Research Institute (EPRI) . . . serves on the board and executive committee of the Nuclear Energy Institute . . . B.A. from Lipscomb University in 1965 . . . Lipscomb Alumnus of the Year in 1995 . . . served in the Marine Corps Reserve and Naval Reserve.



**Skila Harris, Director**, was appointed in November 1999 by President Clinton to a nine-year term as the 25th member of the TVA Board of Directors . . . is the first woman to hold the post of TVA Director . . . has 14 years of public and private experience in the energy field . . . served in the Department of Energy in both the Clinton and Carter administrations . . . from 1993 to 1997 served as Special Assistant to Vice President Al Gore and as Chief of Staff for Tipper Gore . . . Vice President for Development & Compliance at Steiner-Leff Iron & Metal Co. from 1989 to 1992 . . . served as Contract & Project Manager for the U.S. Synthetic Fuels Corp. . . . B.A. in political science from Western Kentucky University and an M.A. in legislative affairs from George Washington University . . . Leadership Knoxville, Class of 2001.



**Glenn L. McCullough, Jr., Director**, was appointed to a six-year term as the 26th member of the TVA Board of Directors by President Clinton in November 1999 . . . elected Mayor of Tupelo, Mississippi, in 1997 . . . has a long history of interest in economic development that stems from both his public service and his participation in private business . . . served as a member of the Executive Committee of the Mississippi Municipal League and the Governor's Special Task Force for Economic Development Planning during his term as Mayor of Tupelo . . . was Director of the Mississippi office of the Appalachian Regional Commission . . . served on the boards of the Economic Development Partnership of Alabama, the Mississippi Partnership for Economic Development and the Commission on the Future of Northeast Mississippi . . . Leadership Memphis, Class of 2001 . . . B.S. from Mississippi State University, where he served as an Elder Statesman.

THE *executive committee*

**Ike Zeringue, President & Chief Operating Officer**, has more than 25 years in the nuclear industry . . . directed start-up and licensing of TVA's Watts Bar Nuclear Plant and recovery and restart of Browns Ferry Nuclear Plant . . . directed start-up, maintenance and operation of Arizona Public Service Co.'s Palo Verde Unit 3 . . . became TVA's Senior VP of Nuclear Operations in 1993 . . . was named TVA's Chief Nuclear Officer and Executive VP of TVA Nuclear in 1997 . . . appointed in 1998 to current position, overseeing TVA's power production, transmission, marketing, economic development and resource management programs . . . nuclear-engineering degree from North Carolina State University . . . graduated from Advanced Management Program at Harvard Business School.



**Norm Zigrossi**, *Chief Administrative Officer & Executive Vice President, Business Services*, joined TVA in 1986 . . . served as TVA's first Inspector General until 1992 . . . was President of TVA's Resource Group from 1992 to 1994 . . . was named Chief Administrative Officer in 1994 and Executive VP of Business Services in 1996 . . . before joining TVA, held a number of management and executive positions with the FBI, including the position of Special Agent in charge of Washington, D.C., field office . . . attended Loyola School of Law in New Orleans . . . B.A. from Ohio Wesleyan University and M.S. from the University of Maryland.



**David N. Smith**, *Chief Financial Officer & Executive Vice President, Financial Services*, came to TVA as its Chief Financial Officer in 1995 . . . was named Executive VP of Financial Services in 1996 . . . has led refinancing of \$23 billion of debt with a variety of U.S., global and retail bond offerings since 1995 . . . previously co-founded and served as Executive Director of Odyssey Financial, a corporate consulting firm . . . played key role in the reorganization of LTV Corp., enabling it to successfully emerge from one of the largest, most complex bankruptcies in U.S. history . . . was VP of Corporate Development for 10 years at Cyclops Corp. . . . CPA certification in 1969 . . . graduate of Northwestern University . . . M.B.A. in finance from Northwestern's Kellogg School of Business.



**Terry Boston**, *Executive Vice President, Transmission/Power Supply*, more than 27 years of experience with TVA . . . served as Manager of Pricing in Customer Service & Marketing . . . named to current position in 1999 . . . responsible for planning, building, operating and maintaining one of the nation's largest transmission and power supply networks, with some 17,000 miles of transmission lines and 675 substations, as well as for providing transmission and related services . . . previous positions with TVA include Division Manager of Electric System Division, District Manager of Regional Operations and Chief of Transmission Construction . . . registered professional engineer's license in Tennessee . . . B.S. in engineering from Tennessee Tech and M.S. in engineering administration from the University of Tennessee.



**Joseph R. Bynum**, *Executive Vice President, Fossil Power Group*, worked in TVA engineering and plant operations positions from 1972 to 1982 . . . Plant Manager of Palo Verde Nuclear Generating Station for Arizona Public Service from 1982 to 1987 . . . named to senior position in TVA's Nuclear Power Operations in 1987 . . . appointed VP of Nuclear Operations in 1989 . . . served as VP of several TVA Fossil and Hydro organizations from 1993 to 1998, including Maintenance & Testing Services, Fuel Supply & Engineering and Fossil Operations . . . named to current position in 1998 . . . B.S. in electrical engineering and M.S. in nuclear engineering from Georgia Tech.



**Edward S. Christenbury**, *Senior Vice President & General Counsel*, has served as TVA's General Counsel since 1987 . . . advises the Board on legal matters and serves as Secretary to the Corporation . . . oversees and coordinates all legal work for TVA . . . worked at the Nuclear Regulatory Commission for seven years before joining TVA . . . while there, served as an Assistant General Counsel and supervised NRC attorneys representing the agency staff in nuclear-licensing proceedings . . . was a trial attorney and supervisor at the U.S. Department of Justice for 11 years . . . licensed to practice before the Supreme Court of the United States . . . B.S. in business administration and law degree from the University of Tennessee.



**Peyton T. Hairston, Jr.**, *Senior Vice President, Strategic Initiatives*, joined TVA in 1993 as the Manager of Strategic Planning & Negotiation Support . . . previously served as Senior Labor Counsel at Chiquita Brands International . . . has 13 years of experience in labor relations . . . named Senior VP of Labor Relations at TVA in 1994 . . . also named TVA's Designated Agency Safety & Health Official in 1994 . . . appointed to current position in 1998 . . . coordinates the development and implementation of TVA's strategic efforts to prepare for industry restructuring . . . oversees Stakeholder Relations, a cross-organizational effort designed to provide first-rate communications with TVA's constituents . . . B.A. from North Carolina State University and law degree from Wake Forest University's School of Law.



**Kathryn J. Jackson**, *Executive Vice President, River System Operations & Environment*, joined TVA in 1991 . . . appointed to current position in 1999 . . . served as Executive VP, Resource Group, 1996-1999 . . . oversees and coordinates river operations, resource stewardship, energy research and technology applications . . . responsible for environmental policy and strategy as well as research and development for the agency . . . Board Chair of the Joint Institute for Energy & Environment . . . Presidential Appointee, National Recreation Lake System Study Commission, 1998-1999 . . . Distinguished Lecturer at Princeton Univ., 1997 . . . Advisor on the Carnegie Mellon College of Engineering Advisory Council, 1998-1999 . . . Member of the Vanderbilt Univ. Advisory Board . . . B.S. in physics from Grove City College . . . M.S. in industrial engineering management from the Univ. of Pittsburgh . . . M.S. and Ph.D. in engineering and public policy from Carnegie Mellon Univ. . . . postdoctoral fellowship at the National Academy of Sciences/Engineering at the National Research Council.



**Mark O. Medford**, *Executive Vice President, Customer Service & Marketing*, joined TVA in 1989 as VP & Nuclear Technical Director . . . served in several TVA executive positions before being named to current position in 1996 . . . responsible for relations between TVA and its customers . . . directs staffs managing customer accounts, product development and pricing, marketing and economic development . . . has more than 25 years of public and private utility experience . . . before joining TVA, was Manager of Nuclear Regulatory Affairs at Southern California Edison . . . served in U.S. Navy 1971-75 and was assigned to the staff of Vice Admiral H.G. Rickover . . . B.S. and M.S. degrees from Rice University . . . M.B.A. from California State Polytechnic University . . . doctorate in executive management from Claremont Graduate School.



**John A. Scalice**, *Chief Nuclear Officer & Executive Vice President, TVA Nuclear*, came to TVA in 1989 as the Plant Manager at Watts Bar Nuclear Plant . . . served as Browns Ferry Plant Manager . . . as Site VP at Watts Bar, played a key role in the successful licensing, start-up and operation of that nuclear unit . . . named to current position in 1998 . . . responsible for all management of TVA's three operating nuclear plants . . . has more than 29 years of experience in the nuclear industry in areas of plant operations, nuclear security and reactor engineering . . . Senior Reactor Operating license . . . B.S. in mechanical engineering and M.S. in nuclear engineering from Polytechnical Institute of New York.



**Gregory M. Vincent**, *Senior Vice President, Power Resources & Operations Planning*, came to TVA in 1992 as the VP of Fossil Fuels . . . previously served as Director of Fuel Supply for Niagara Mohawk Power Corp. . . . has more than 31 years of experience in engineering and management . . . named to current position in early 1999 after serving as VP of Fuel Supply & Engineering and VP of Hydro Operations . . . evaluates TVA's power-supply and transmission options, including the construction of new power plants, the development of green power and the promotion of demand-side conservation . . . assesses the impacts of competition, new regulations and other changes in TVA's internal and external business environment . . . B.S. in electrical engineering from Northeastern University . . . M.B.A. from Syracuse University.

## Statistical & Financial Summaries

For the years ended September 30	2000	1999	1998	1997
<b>Sales (millions of kWh)<sup>a</sup></b>				
Municipalities and cooperatives	125,991	122,880	123,330	114,771
Industries directly served	22,204	22,885	18,514	17,359
Federal agencies and other	11,376	10,190	21,293	27,198
<b>Total sales</b>	<b>159,571</b>	155,955	163,137	159,328
<b>Operating revenues (millions of dollars)<sup>a</sup></b>				
Electric				
Municipalities and cooperatives	\$ 5,676	\$ 5,510	\$ 5,554	\$ 4,811
Industries directly served	626	642	523	464
Federal agencies and other	361	357	556	561
Other	99	86	96	98
<b>Total revenues</b>	<b>\$ 6,762</b>	\$ 6,595	\$ 6,729	\$ 5,934
Electric revenue per kWh (cents) <sup>b</sup>	4.18	4.17	4.07	3.66
<b>Winter net dependable generating capacity (megawatts)</b>				
Hydro <sup>c</sup>	5,544	5,492	5,491	5,384
Fossil	15,042	15,049	15,003	15,014
Nuclear units in service	5,729	5,729	5,620	5,625
Combustion turbine	3,154	2,232	2,384	2,394
<b>Total capacity</b>	<b>29,469</b>	28,502	28,498	28,417
<b>System peak load (megawatts)—summer</b>	<b>29,344</b>	28,295	27,253	26,661
<b>System peak load (megawatts)—winter</b>	<b>25,940</b>	26,388	23,204	26,670
<b>Percent gross generation by fuel source</b>				
Fossil	<b>63%</b>	63%	62%	61%
Hydro	<b>6%</b>	7%	10%	11%
Nuclear	<b>31%</b>	30%	28%	28%
<b>Fuel cost per kWh (cents)</b>				
Fossil	<b>1.27</b>	1.28	1.25	1.23
Nuclear <sup>e</sup>	<b>.49</b>	.51	.71	.58
Aggregate fuel cost per kWh net thermal generation	<b>1.05</b>	1.05	1.10	1.04
<b>Fuel data</b>				
Net thermal generation (millions of kWh)	<b>143,224</b>	137,169	139,727	135,735
Billion Btu	<b>1,470,452</b>	1,403,110	1,426,151	1,381,837
Fuel expense (millions of dollars)	<b>1,504</b>	1,434	1,538	1,406
Cost per million Btu (cents)	<b>102.29</b>	102.21	107.81	101.73
Net heat rate, fossil only	<b>10,267</b>	10,229	10,207	10,180

<sup>a</sup> Sales and revenues have been adjusted to include sales to other utilities.

<sup>b</sup> Excludes settlement payment from Department of Energy of \$311 million for 1990 and \$160 million for the years 1991-1994.

<sup>c</sup> Includes 405 megawatts of dependable capacity from the Corps of Engineers projects on the Cumberland River System.

<sup>d</sup> Reflects expiration of TAPOCO exchange agreement in 1990—renewed in 1994.

<sup>e</sup> TVA changed its method of expensing the interest component of nuclear fuel expense in 1995.



1996	1995	1994	1993	1992	1991	1990
117,035	110,245	108,073	105,566	98,505	97,299	96,748
16,599	16,684	15,792	16,196	16,576	17,422	17,134
19,964	12,356	13,599	10,952	8,970	5,720	6,300
153,598	139,285	137,464	132,714	124,051	120,441	120,182
\$ 4,980	\$ 4,654	\$ 4,582	\$ 4,479	\$ 4,266	\$ 4,272	\$ 4,292
452	460	452	472	472	531	548
430	277	441	414	342	286	455
89	82	71	71	71	68	69
\$ 5,951	\$ 5,473	\$ 5,546	\$ 5,436	\$ 5,151	\$ 5,157	\$ 5,364
3.82	3.87	3.87	3.92	3.97	4.09	4.15
5,298	5,225	5,242	4,885 <sup>d</sup>	4,885 <sup>d</sup>	4,885 <sup>d</sup>	4,885 <sup>d</sup>
15,012	15,032	15,032	15,088	15,088	15,249	15,249
5,545	3,342	3,342	3,365	3,361	3,361	2,296
2,268	2,232	2,264	2,284	2,284	2,284	2,284
28,123	25,831	25,880	25,622	25,618	25,779	24,714
25,376	25,496	23,398	23,878	21,980	22,081	21,749
25,995	24,676	24,723	21,666	21,974	20,752	24,627
65%	71%	72%	77%	69%	68%	68%
11%	12%	14%	13%	14%	16%	19%
24%	17%	14%	10%	17%	16%	13%
1.23	1.26	1.34	1.27	1.33	1.35	1.37
.56	.61	1.10	1.09	1.10	1.02	1.00
1.06	1.14	1.31	1.25	1.29	1.29	1.32
131,898	118,097	110,643	109,968	105,577	98,153	93,595
1,338,157	1,197,295	1,120,868	1,105,395	1,069,725	998,934	946,113
1,395	1,348	1,450	1,375	1,360	1,263	1,233
104.22	112.61	129.40	124.42	127.16	126.48	130.36
10,145	10,138	10,131	10,052	10,132	10,177	10,109

F O R W A R D - L O O K I N G

## *statements*

This annual report contains forward-looking statements relating to future events and future performance. Any statements regarding expectations, beliefs, plans, projections, estimates, objectives, intentions or assumptions or otherwise relating to future events or performance may be forward-looking. Some examples of forward-looking statements include statements regarding TVA's projections of future power and energy requirements, future costs related to environmental compliance, impacts of potential legislation on TVA and the likelihood of enactment of such legislation, targets for TVA's future competitive position, and impacts of pending litigation and administrative orders, such as the administrative order issued to TVA in November 1999 by the Environmental Protection Agency. Although TVA believes that the assumptions underlying the forward-looking statements are reasonable, TVA does not guarantee the accuracy of these statements. Numerous factors could cause actual results to differ materially from those in the forward-looking statements. These factors include, among other things, new laws, regulations, and administrative orders, especially those related to restructuring of the electric power industry and various environmental matters; increased competition among electric utilities; legal and administrative proceedings affecting TVA; the financial environment; performance of TVA's generating facilities; fuel prices; the demand for electricity; weather conditions; changes in accounting standards and unforeseeable events.

### **General Inquiries**

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TVA is an equal opportunity and affirmative action employer. TVA also ensures that the benefits of programs receiving TVA financial assistance are available to all eligible persons regardless of race, color, sex, national origin, religion, disability or age. This document can be made in an alternate format upon request.