

*the power of* **EXCELLENCE**

**2001** ANNUAL REPORT

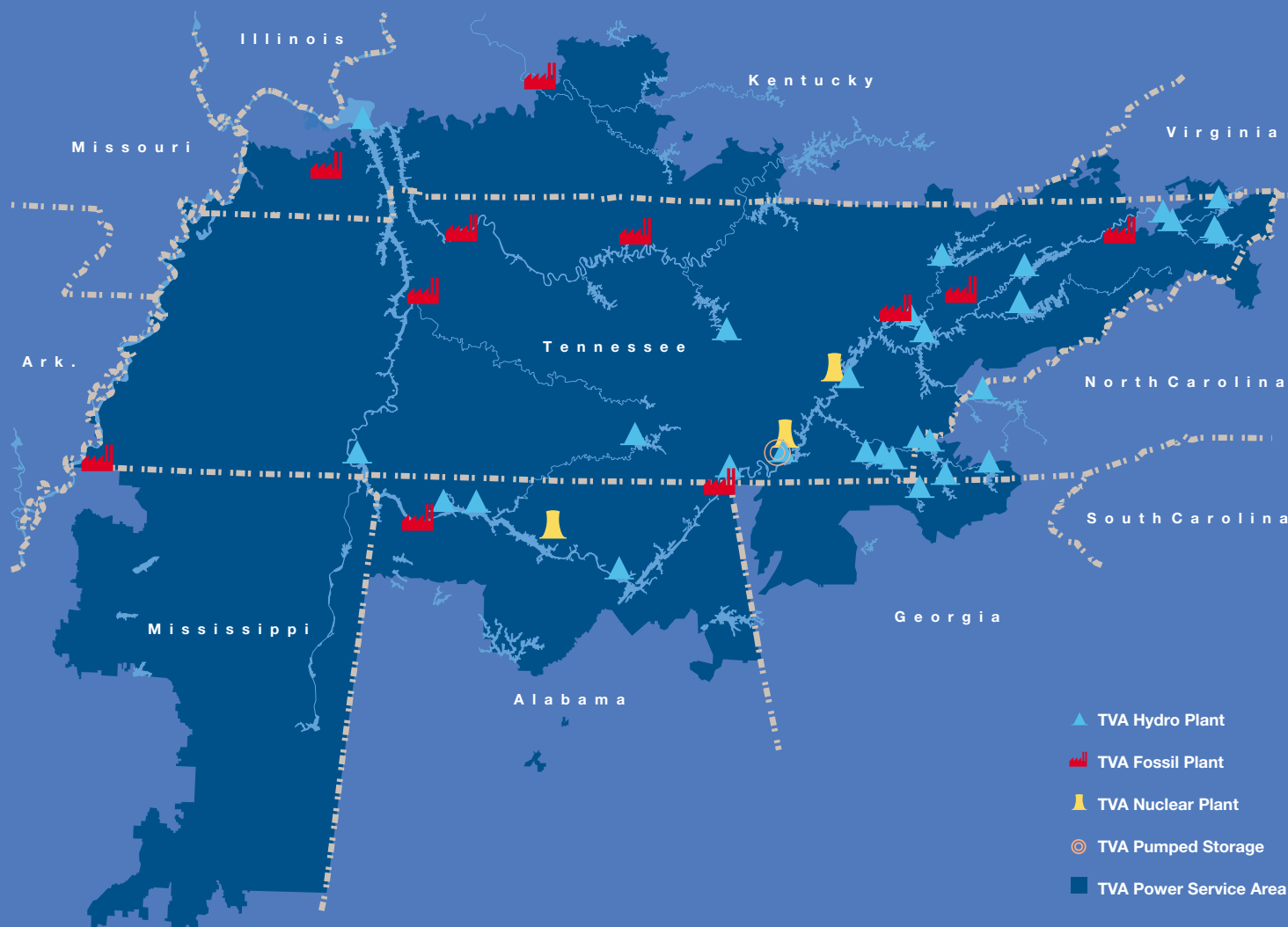


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## Steward of the Tennessee Valley's Resources

TVA manages the Tennessee River system, balancing the public benefits of navigation, flood control, power production and transmission, water quality, and recreation.

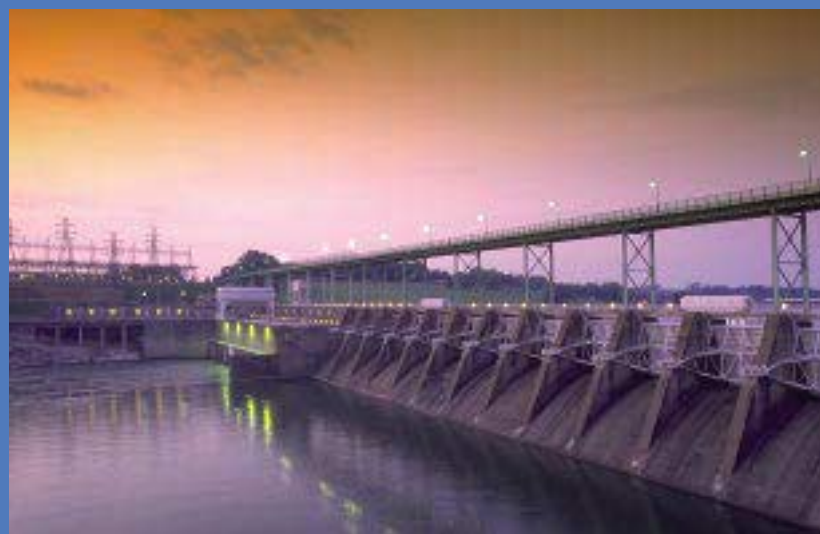


# Financial highlights

## power program

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

	2 0 0 1	2 0 0 0	Percent Change
<b>Summary Statements of Income</b>			
Operating revenues	\$ 6,999	\$ 6,762	4
Operating expenses	(5,506)	(5,019)	10
Operating income	1,493	1,743	(14)
Other income, net	248	17	NM
Interest expense, net	(1,633)	(1,736)	(6)
<b>Income before impairment of assets</b>	<b>108</b>	24	NM
Loss on impairment of assets	(3,419)	–	NM
<b>Net income (loss)</b>	<b>\$ (3,311)</b>	\$ 24	NM
<b>Total assets</b>			
	<b>\$ 29,699</b>	\$ 33,181	(10)
Discount notes	\$ 3,016	\$ 1,274	137
Long-term debt, including current maturities	22,359	24,711	(10)
<b>Total indebtedness</b>	<b>\$ 25,375</b>	\$ 25,985	(2)
<b>Cash flows from operations</b>	<b>\$ 1,885</b>	\$ 1,584	19
<b>Capital expenditures</b>	<b>\$ 1,015</b>	\$ 867	17



## Corporate Profile

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 navigation, flood control, and agricultural and industrial development and to promote the use of electric power in the Tennessee Valley region. Through 158 local power distributors, TVA supplies electricity to 8.3 million people in the Valley. Along with affordable, reliable power, TVA delivers value to the Valley economy by promoting economic growth and supporting a thriving river system.



### generation

- **Nation's largest public power system**
- **30,365 megawatts of capacity (net winter dependable)**
- **11 fossil plants (59 units)**
- **3 nuclear plants (5 units)**
- **29 hydro plants (109 units)**
- **5 combustion turbine plants (64 units)**
- **1 pumped storage plant (4 units)**
- **Customers**
  - 158 power distributors
  - 62 directly served customers
  - 11 exchange power arrangements

### transmission

- **Reliable even under severe conditions**
- **99.999 percent reliability**
- **Well positioned for power transfers**
- **17,000 miles of transmission lines**
- **130,000 transmission-line structures**
- **973 individual interchange and delivery points**
- **240,000 right-of-way acres**
- **80,000 square mile service area**

### stewardship

- **Nation's fifth-largest river system**
- **800 miles of commercially navigable waterways**
- **49 dams for integrated river management**
- **50 million tons of goods shipped in 2001**
- **\$194 million in potential flood damage avoided in 2001**
- **11,000 miles of public shoreline**

### economic development in 2001

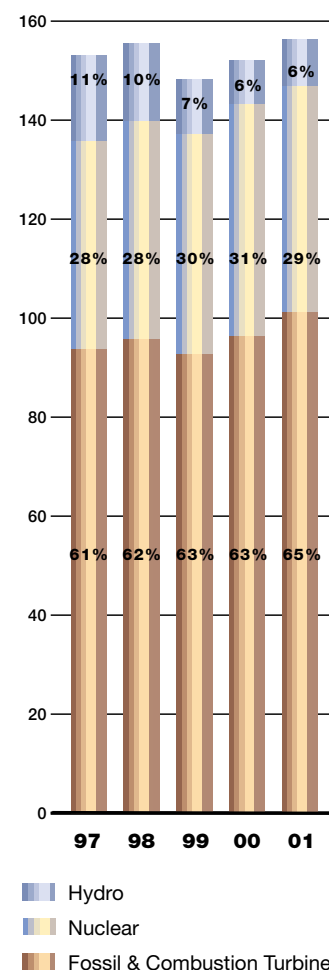
- **\$315 million in tax-equivalent payments to Valley states and counties**
- **\$1.1 billion TVA payroll**
- **\$15.7 million of economic development loan commitments to Valley businesses**
- **\$1.4 billion spent with Valley firms for products and services**

# Power system statistics

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

	2 0 0 1	2 0 0 0	Percent Change
<b>System input (millions of kilowatt-hours)</b>			
Hydro, including pumped storage	9,508	8,769	8
Fossil	100,118	95,271	5
Nuclear	45,615	46,921	(3)
Combustion turbine	1,073	1,032	4
Green power	5	–	NM
Total net generation	156,319	151,993	3
Purchased	9,866	12,516	(21)
<b>Total system input</b>	<b>166,185</b>	<b>164,509</b>	<b>1</b>
<b>System output (millions of kilowatt-hours)</b>			
Sales			
Municipalities and cooperatives	129,760	125,991	3
Industries directly served	23,306	22,204	5
Federal agencies and other	8,355	11,376	(27)
Total sales	161,421	159,571	1
Other	793	1,062	(25)
Losses	3,971	3,876	2
<b>Total system output</b>	<b>166,185</b>	<b>164,509</b>	<b>1</b>
<b>Net winter dependable capacity (megawatts)</b>	<b>30,365</b>	29,469	3
<b>System peak load (megawatts)—summer</b>	<b>27,368</b>	29,344	(7)
<b>System peak load (megawatts)—winter</b>	<b>27,163</b>	25,940	5
<b>Annual load factor (percent)</b>	<b>67.0</b>	60.2	11
<b>Number of employees as of September 30</b>	<b>13,430</b>	13,145	2
<b>Percent net winter dependable capacity by fuel source</b>			
Fossil	49%	51%	(4)
Nuclear	19%	19%	–
Hydro	19%	19%	–
Combustion turbine	13%	11%	18

Electricity Generation  
(in billions of kWh)



F r o m   t h e   C h a i r m a n



GLENN L. McCULLOUGH, JR.

*A message from the TVA Board of Directors—*

*On behalf of the Tennessee Valley Authority, we extend our heartfelt sympathy and support to those who lost loved ones in the horrific attacks of September 11.*

*We salute the perseverance and resilience that Americans have shown during this difficult time. We are strengthened by the extraordinary courage of our fellow citizens who risk their lives to protect and to serve.*

*We are inspired by the willingness of so many people throughout the country to help in any way possible.*

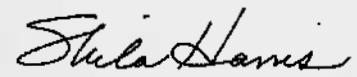
*We are proud of the contributions made by the people of TVA— from delivering emergency supplies and funds to the professional work of the TVA Police securing and protecting all our facilities.*

*The people of TVA are united with all Americans and people around the world who are resolute that in the fullness of time respect for life and freedom will prevail over fear.*

*The values that help to make America great will endure, and together we will make the world a better place for all people.*



GLENN L. MCCULLOUGH, JR.  
Chairman



SKILA HARRIS  
Director

## THE POWER OF EXCELLENCE

A large, stylized blue letter 'S' with a subtle drop shadow, serving as a decorative element for the start of the main text.

ince its creation, TVA has served the people of the Tennessee Valley by producing reliable, affordable electric power, fostering economic development, and maintaining stewardship of the region's natural resources.

Today TVA remains committed to these missions of public service to the Valley and the nation.

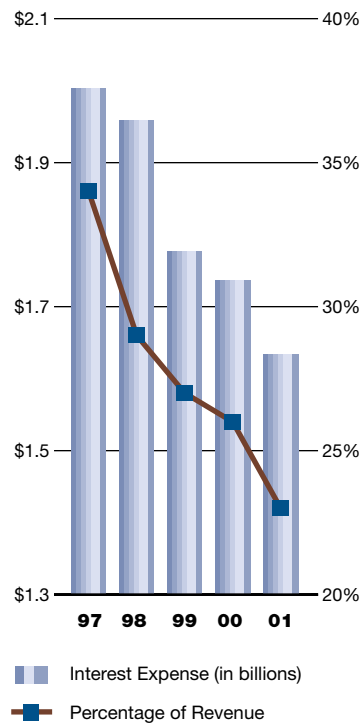
Affordable, reliable electric power is the fuel of our regional economy, and TVA's power system is growing and improving to keep pace with ever-increasing demand. In step with America's energy policy for the 21st century, TVA will play a vital role as a public power provider, dedicated to the public good and competitive in an increasingly open energy marketplace. TVA will be run as a business, but our bottom line will remain the creation of value for the people. We will be centered on citizens and focused on results. We will be responsive to the marketplace, through our initiatives promoting innovation and competition.

TVA is committed to environmental stewardship. We will improve the quality of life in the Valley by managing the Tennessee River system in accordance with a strategy that balances the diverse benefits of navigation, flood control, power production, water quality, and recreation for the greatest public good.

In economic development, TVA is dedicated to working with the communities it serves in order to help attract and retain new and better jobs for the people of the Valley.



### Interest Expense as a Percentage of Revenue



In fiscal year 2001, TVA’s power system extended its record of efficient operation, selling 161.4 billion kilowatt-hours of electricity for total revenues of nearly \$7 billion. TVA reduced its debt by \$610 million, a decrease that brings total debt reduction to \$2.3 billion over the past five years and lowers the proportion of revenues absorbed by interest payments from 34 cents to 23 cents of each revenue dollar. TVA accomplished this even as it invested the funds needed to increase generating capacity, add miles of transmission lines, install new customer delivery points, and add new clean-air equipment to protect the environment. The result of the improvements in our transmission system, we’re proud to report, is 99.999 percent reliability in delivering the needed power to our customers for the year.

TVA’s leadership standard is to achieve excellence in business performance and public service. Our six strategic objectives are to:

- **Meet customers’ needs by providing affordable, reliable electric power**
- **Continue the trend of debt reduction**
- **Reduce TVA’s delivered cost of power relative to the market**
- **Enhance the quality of life in the Tennessee Valley through environmental stewardship and balanced, integrated management of the Tennessee River system**
- **Demonstrate leadership in supporting sustainable economic development throughout the Tennessee Valley**
- **Strengthen TVA’s working relationships with Valley residents, communities, and businesses; with customers and suppliers; and with leaders at all levels of government.**



“TVA will generate more for



“Our vision is for TVA to achieve excellence in business performance and public service for the good of the people of the Tennessee Valley. We achieve this by delivering affordable, reliable electric power, being a good steward of the environment, and supporting sustainable economic development.” —SKILA HARRIS, DIRECTOR

Director Skila Harris, who has served with me on the TVA Board of Directors these past two years, has brought expert knowledge of the national energy scene and a deep sense of environmental responsibility to the work of planning TVA’s direction in the 21st century.

Skila and I look forward to delivering on TVA’s continuing promise of excellence in power production, economic growth, and environmental stewardship.

In the years to come, TVA will generate more for less for the good of many.

A handwritten signature in black ink that reads "Glenn L. McCullough, Jr." The signature is written in a cursive, flowing style.

Glenn L. McCullough, Jr.  
Chairman

less for the good of many.”

# Providing Affordable, Reliable Power

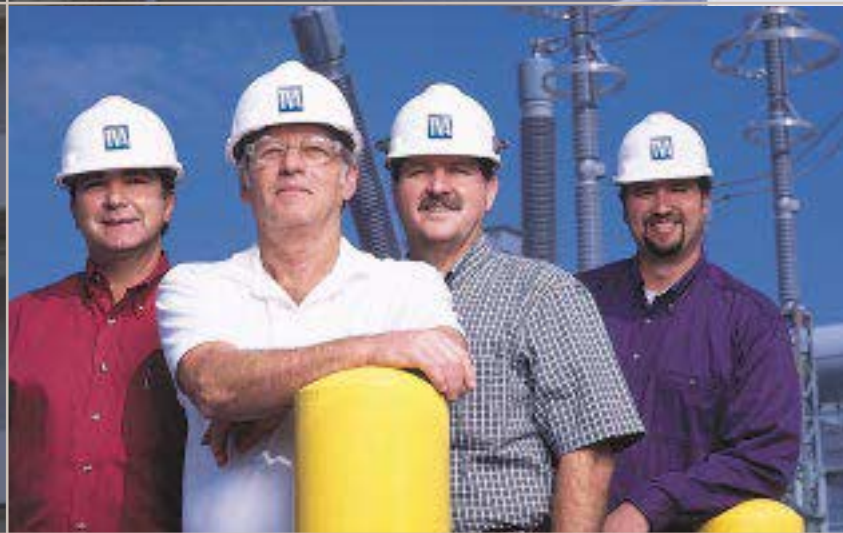


## Combustion Turbines Help TVA Meet the Peaks

“By adding peaking capacity, we not only strengthen the TVA power system but also make it more flexible and reliable,” says Bob Summers, Vice President of New Generation and Systems Projects.

In 2001 TVA put into service eight new combustion turbine (CT) units at the Lagoon Creek CT Plant in Brownsville, Tennessee. This contributed more than 680 megawatts of capacity to meet peak demand. Another 680 megawatts of CT capacity are expected to go online by summer 2002—340 in DeKalb, Mississippi, and 340 at the Lagoon Creek site. Summers explains, “These units give us the ability to turn a switch and within minutes add crucial power when we need it most.”

Since 1994, TVA has added 4,500 megawatts of generating capacity and upgraded the capability and reliability of its transmission system, building 986 miles of new lines and installing 204 new customer delivery points. Even as demand for power in the Valley has increased by an average of 3 percent annually, TVA has reduced service interruptions by one-third.



Customer requirements for power quality and reliability are also becoming more stringent. Today one-third of the electricity consumed in the U.S. is used to power electronic equipment, and that proportion is expected to increase to one-half by 2005. Combined with the growing use of computer automation and robotics, this means that service interruptions of a fraction of a second can cause problems for consumers and industries. During the past two summers, TVA supplied 100 percent of its firm load without resorting to power interruptions or public appeals for reduced consumption.

TVA's power system is setting production records, operating more efficiently and cost-effectively than at any time in the past three decades, and has had only one rate increase in 14 years.

**From left:** Kerry Brannon of TVA's Customer Service and Marketing with the combustion turbine team of Bob Summers, Robert Casey, and Steve Fordyce.

# Continuing the Trend of Debt Reduction

EXCIV

## \$610 Million in FY 2001 Brings Debt Reduction to \$2.3 Billion

TVA is financially sound and taking steps to remain financially healthy and competitive as the electric power industry is restructured. TVA's cash flow generated from operations has steadily increased over the past six years, growing to \$1.9 billion in 2001 – an improvement of over 130 percent.

This increase in cash flow has enabled TVA to reduce its debt from \$27.7 billion in 1997 to \$25.4 billion today. TVA continues to make steady progress in debt reduction, even while investing in new generating capacity and transmission systems to provide an affordable, reliable supply of power and to comply with environmental regulations.

In the coming years, the TVA Board will weigh the investments needed to ensure an affordable, reliable power supply, striking the balance that continues the trend of debt reduction while enhancing TVA's financial strength, supporting prosperity in the region, and promoting economic growth across the Tennessee Valley.



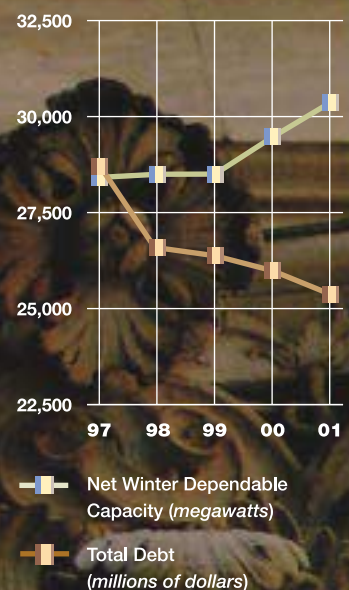
## Finance Team Issues Popular Bonds

In 2001 TVA took advantage of market conditions and designed a variety of bonds to appeal to a diverse group of investors and reduce its interest expense. TVA decreased interest expense by \$103 million last year and by \$370 million since 1997. Net interest expense as a percentage of revenues is down from 34% to 23%.

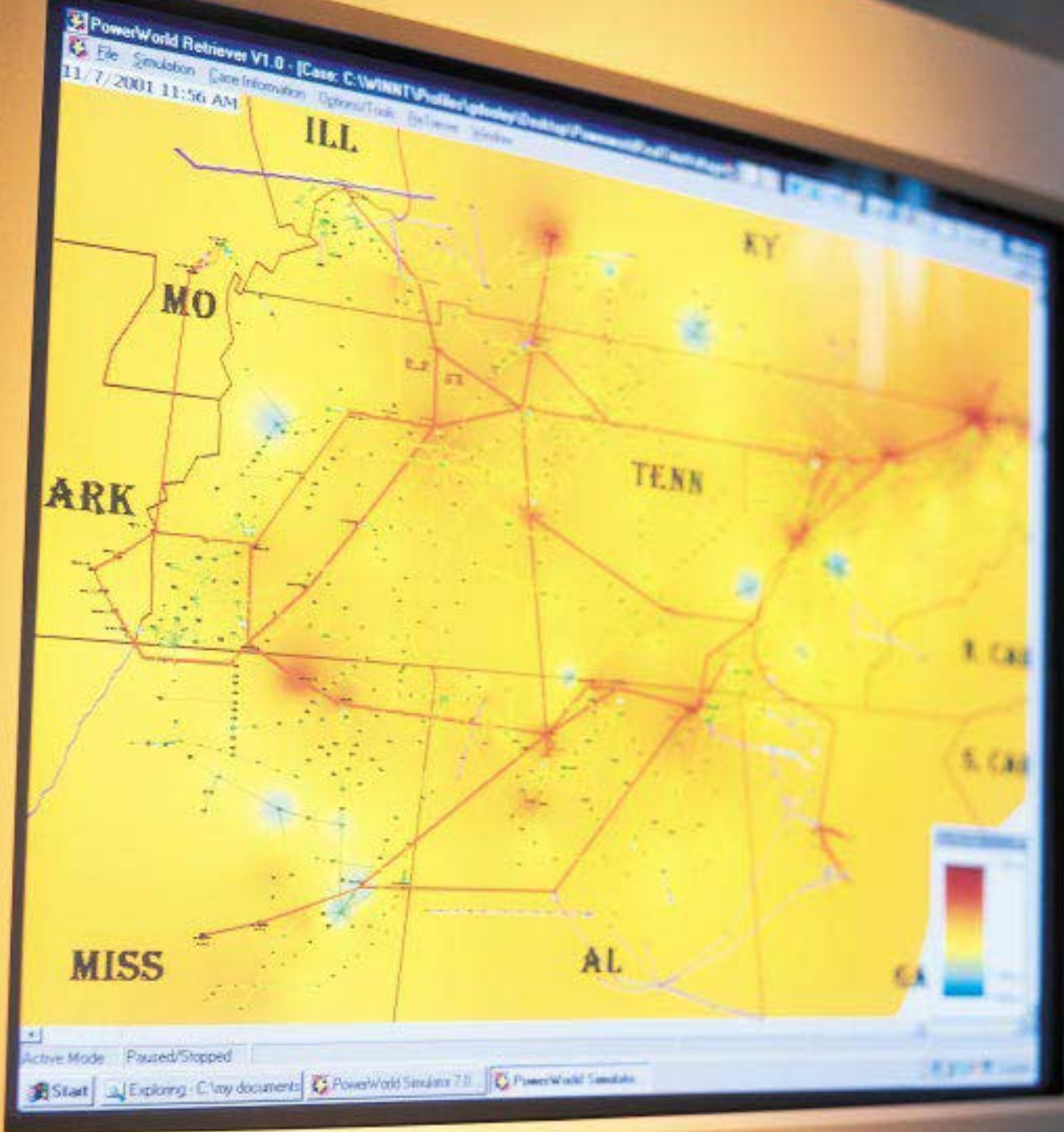
In January TVA issued \$1 billion of 10-year bonds at a 5.625 percent interest rate—the second lowest rate on a 10-year issue that TVA has obtained in a decade. In July the team pictured above created a three-year global bond, with 70 percent sold to international investors. Because demand was so high, TVA was able to obtain an interest rate of 4.75 percent.

From left: The TVA Finance team of Becky Trehwitt, Tammy Wilson, Jaime Holmes, Janet Davies, and Mary Nell Pruitt put together a series of popular bond offerings.

## Debt Decreases While Capacity Increases



# Reducing TVA's Delivered Cost of Power





## Integrated Operations Team Saves \$30 Million

In May 2001, TVA's Integrated Operations Team won the government-sector category of the Rochester Institute of Technology/ *USA Today* Quality Cup for its fully automated process redesign that is optimizing the overall performance of TVA's power system and saving \$30 million per year.

Made up of experts from all parts of TVA, the team created models showing how the power and river systems could best be optimized, with special emphasis on the need to meet varying power demands. Then the team redesigned processes throughout TVA to achieve the highest standard of operation, using accurate, up-to-the-minute data and state-of-the-art computer models.

Wai-Ran Wu, Manager of Transmission Security in Transmission/Power Supply, developed a software application (shown at left) that analyzes power flows across the transmission grid based on all transactions on the Eastern Interconnection. Wu's application has proved so effective that he was invited to demonstrate it at the White House.

Using the team's redesigned processes and information-systems models, TVA achieved the lowest rate of customer-connection-point interruptions in its history, a 16.4 percent improvement in load-not-served results, and a best-in-industry measurement of operational efficiency. Team Sponsor Terry Boston says, "We've also reduced the time it takes to re-optimize supply when there's an interruption on the system from 47 minutes to four."

**From left:**  
**PAULA WILLIAMSON**  
 TPS Cost Analysis  
**WAI-RAN WU**  
 Transmission Security  
**SCOTT WALKER**  
 Asset Portfolio  
**TERRY BOSTON**  
 Team Sponsor  
 Transmission/  
 Power Supply  
**JOAN DODD**  
 Team Leader  
 Transmission  
 Line Projects  
**CHRIS WALKER**  
 Asset Portfolio  
**PHILLIP WIGINTON**  
 Natural Gas and  
 Diesel Fuel  
 Acquisition  
**ROBIN KIRSCH**  
 River Scheduling  
**LEE MATTHEWS**  
 Process and  
 Methods  
**LARRY AKENS**  
 Operations  
 Analysis



# Environmental Stewardship



## SCR Systems Help Ensure a Cleaner Future for Fossil Plants

At left, a crane at Allen Fossil Plant in Memphis helps build the Selective Catalytic Reduction (SCR) systems that will reduce air-polluting emissions from plant smokestacks. Two other SCR systems, at Paradise Fossil Plant in Kentucky, were installed during the summers of 2000 and 2001. Altogether, 18 SCRs are planned for TVA's fossil plants, representing an investment of approximately \$1 billion.

Since the mid-1970s, TVA has invested more than \$2.7 billion in emissions-control equipment at its 11 coal-fired plants. TVA has decreased nitrogen oxide emissions by approximately 45 percent in the past six years, and by 2005 nitrogen oxide emissions during the summer



ozone season are projected to be 70 to 75 percent lower than 1995 levels.

TVA has decreased sulfur dioxide emissions by about 65 percent since 1976, even as power generation at its coal-fired units has risen 20 percent over the same period. By 2005 TVA will have reduced sulfur dioxide emissions by 75 to 80 percent, and it has announced plans to install five additional scrubbers that will eventually improve the sulfur dioxide reduction to 85 percent.

LOUIS LEE  
Manager  
Allen Fossil Plant

# Promoting Green Power



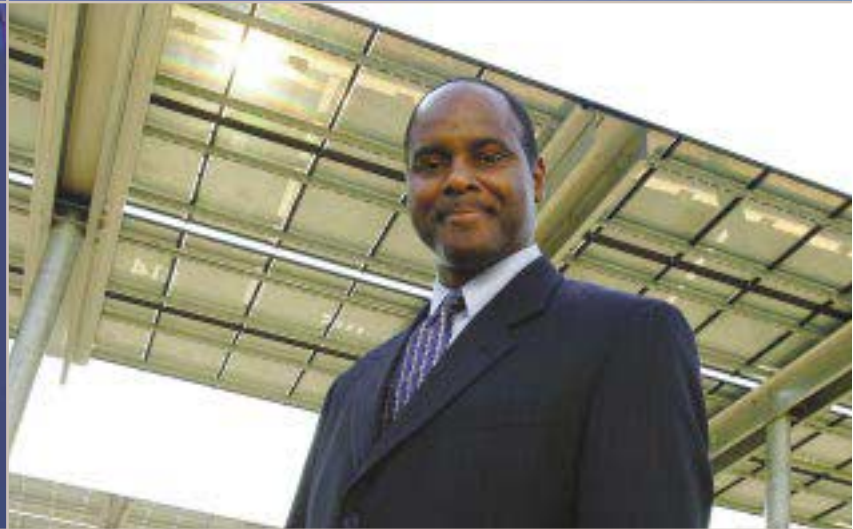
## Wind Turbines Lead the Push for Green Power

Shown here under construction, TVA's three wind turbines—towering 290 feet from the ground to the tip of an upright rotor blade and located on top of Buffalo Mountain in Anderson County, Tennessee—are generating about 6 million kilowatt-hours of electricity annually, enough to power 400 typical homes.

The Green Power Switch® program, entering its second full year, is successfully recruiting electricity customers with an interest in fostering increased use of renewable sources of power. In partnership with distributors, TVA is investing in wind-turbine, solar-cell, and methane-gas technologies that will contribute more and more to its power mix in the years to come.

“By choosing green power, you’re helping to improve our region’s air and water quality,” says Don Kohanski, president and CEO of Nashville Electric Service, a participating distributor.

A total of 250 kilowatts of Green Power Switch solar energy is available at 10 sites across the Valley.

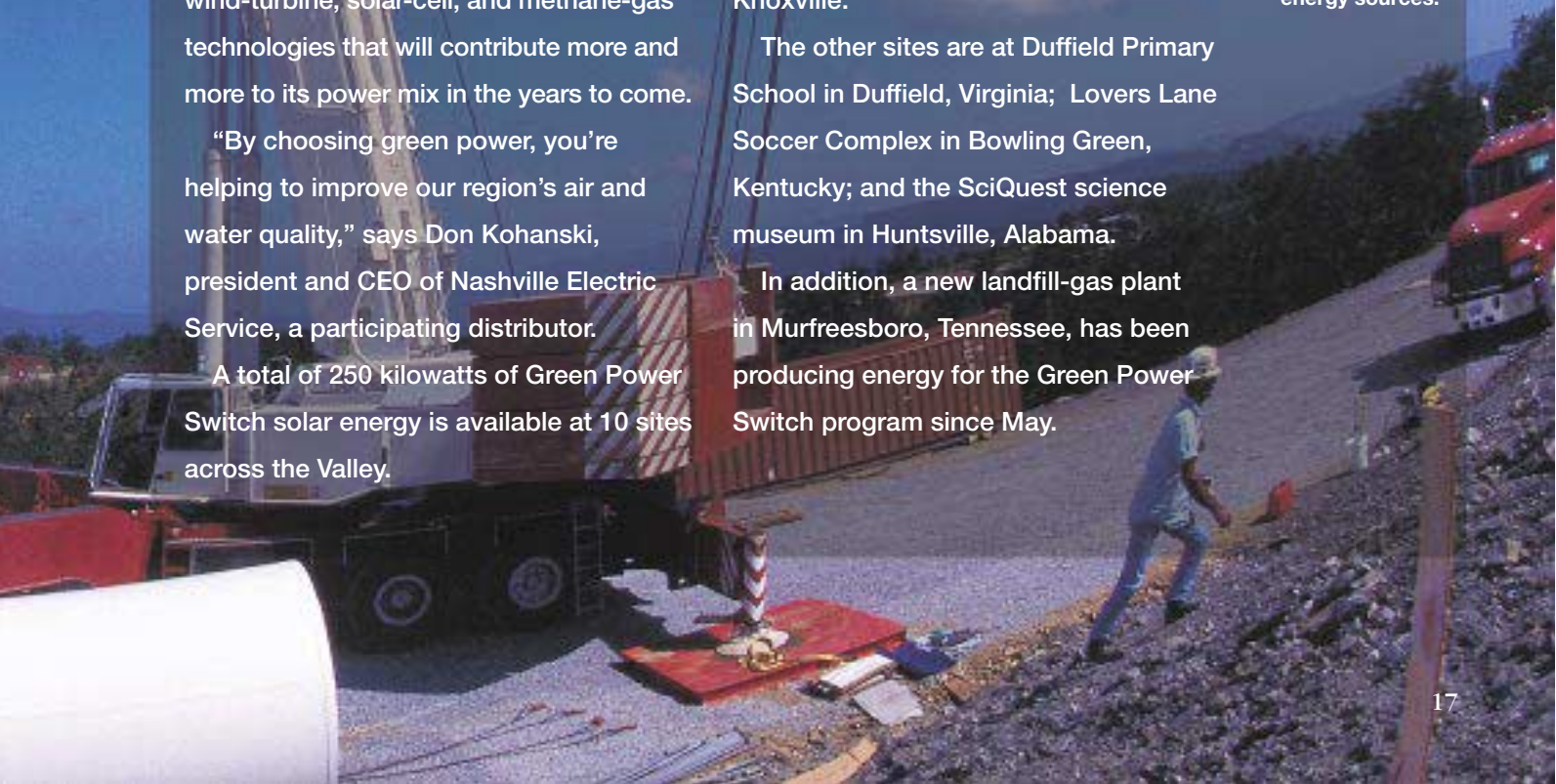


In Tennessee the sites are at the American Museum of Science and Energy in Oak Ridge; Cumberland Science Museum in Nashville; Dollywood amusement park in Pigeon Forge; Cocke County High School in Newport; Gibson County High School in Dyer; Finley Stadium in Chattanooga; and Ijams Nature Center in Knoxville.

The other sites are at Duffield Primary School in Duffield, Virginia; Lovers Lane Soccer Complex in Bowling Green, Kentucky; and the SciQuest science museum in Huntsville, Alabama.

In addition, a new landfill-gas plant in Murfreesboro, Tennessee, has been producing energy for the Green Power Switch program since May.

Green Power Switch manager Gary Harris, shown at the Finley Stadium solar energy site in Chattanooga, knows the wind is blowing—and the sun is shining—toward renewable energy sources.



# Public Power Provides Innovations



TVA's Public Power Institute, in Muscle Shoals, Alabama, explores solutions to environmental, economic, and energy-related issues, using cutting-edge technologies and innovations. Below are two examples from 2001.

### **Constructed Wetlands Win EPA Award**

TVA Water Processes Specialist Dr. Les Behrends won an EPA Environmental Merit Award in the individual category for developing the constructed-wetlands technology by which runoff water can be filtered and cleansed before it enters a watershed. Instead of hazardous chemicals, constructed-wetlands systems use water and alternating levels of oxygen to remove pollutants from industrial, domestic, and agricultural wastewater.

### **Regenesys Pioneers Energy Storage**

In another Public Power Institute project, TVA is building a 12-megawatt electricity-storage plant in Columbus, Mississippi. The first of its type in this country and

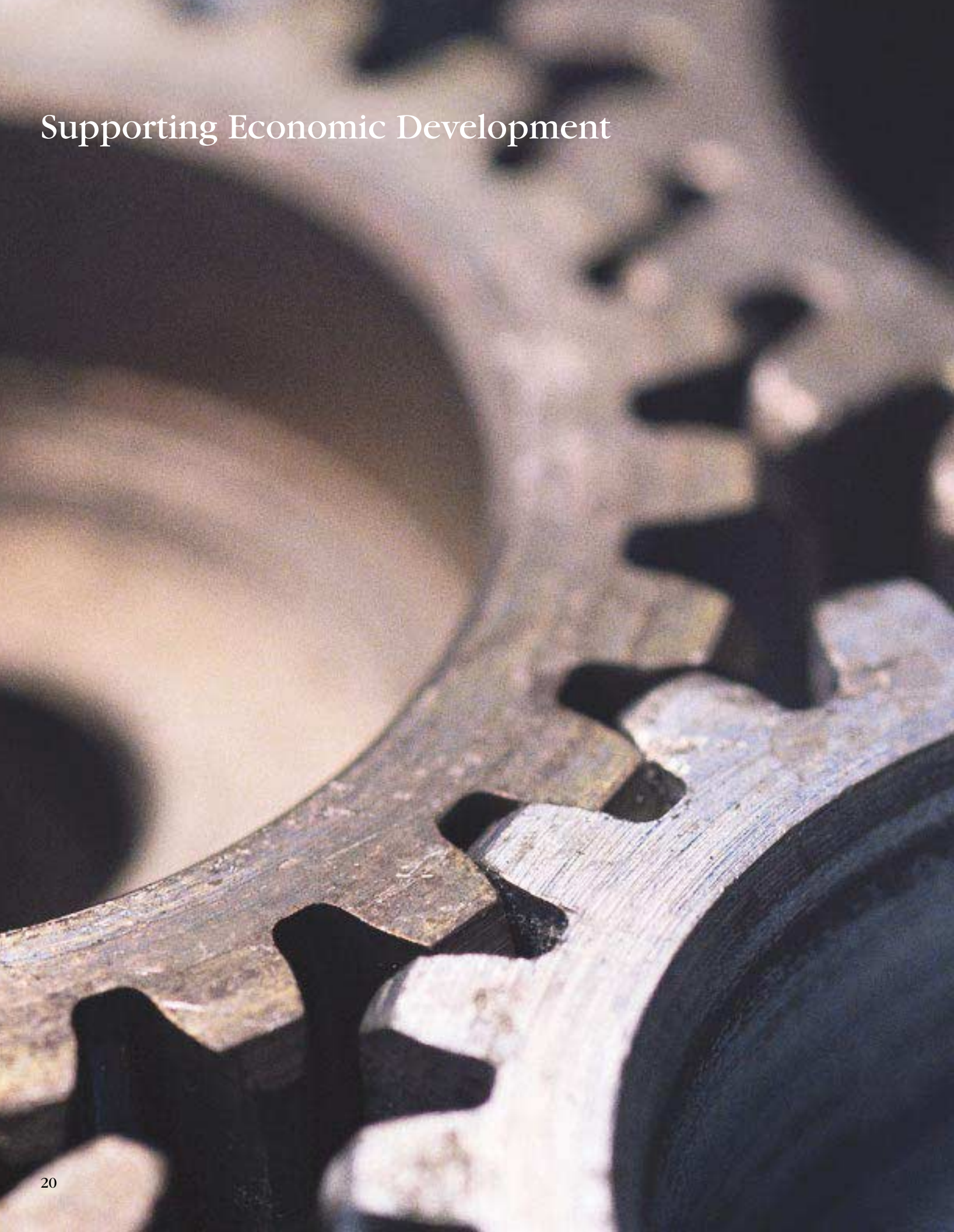


only the second in the world, the plant uses a system called Regenesys, developed by the United Kingdom's Innogy Technology Ventures Ltd., that makes it possible to store electricity generated when demand for power is low and to transmit it during periods of peak demand. The 2000 *Financial Times* Global Awards named Regenesys the most promising precommercial technology in the world.

"The flow-battery technology uses a reversible electrochemical reaction between two electrolytes, or salt solutions, to store energy almost like a DC battery," says Project Manager Mick Ray of River System Operations & Environment. "When power demand is high, the production process reverses itself and releases DC-to-AC-converted electricity."

**Water Processes Specialist Les Behrends found a better way to keep pollutants out of watersheds.**

# Supporting Economic Development



## Saving a Company, Retaining Jobs

Porter-Walker is a Columbia, Tennessee, company that distributes industrial supplies and equipment. It is also a key TVA supplier, making daily deliveries to fossil plants and many other locations. The co-owners of Porter-Walker were approaching retirement and looking to sell. James Fleming, one of the owners, wanted to ensure that the 94-year-old concern would stay where it was and retain its 44 employees.

Through an industry trade publication, Fleming learned of a similar company in Detroit—Fife Electric, one of the nation's largest minority-owned electrical distribution businesses. TVA Specialists from Procurement and Economic Development—Steve Ayers, Jeff Taylor and Ella Rogers—began working with Fife's owner, Doug Venable, to help him acquire Porter-Walker. Using money from the Economic Development and Minority Business Development loan funds, Venable bought the Tennessee company and saved its jobs.



TVA leads the way in sustainable economic development by teaming up with communities and businesses throughout the region to improve the quality of life in the Tennessee Valley. TVA's economic development products include a diverse package of loans and technical services designed to stimulate capital investment and promote the creation and retention of high-quality jobs.

In partnership with Regional Industrial Development Associations, TVA helped create or retain more than 47,800 jobs over the past year. TVA also provided \$15.7 million in loans from the Economic Development Loan Fund, which leveraged more than \$327 million in funding from other sources.

The team that ensured the future of Porter-Walker (from left): Jeff Taylor of TVA Economic Development, former owner James Fleming, Steve Ayers of TVA Procurement, new owner Doug Venable, and Ella Rogers of TVA Economic Development.



Strengthening Relationships. . . With Customers



## Ready for Restructuring

In a restructured marketplace, TVA will be only as successful as its customers. TVA employees work daily with the 158 distributors of TVA power and the 62 directly served industrial and federal customers to provide the highest-quality support and assistance. TVA is taking steps to smooth the transition as the electric utility industry is restructured. These steps include discussions aimed at providing greater contract flexibility to customers, which will also help TVA optimize its planning of new generating capacity for the Valley.

The TVA Board is committed to playing a leadership role in restructuring, both to help accomplish successful, innovative change and to ensure that restructuring benefits the people of the Valley. To that end, TVA has worked with customers to develop a Valley consensus on national restructuring legislation. It has also signed transmission cooperation agreements with surrounding utilities and emerging regional transmission organizations (RTOs), laying the foundations for future partnering as the RTO effort matures. TVA has executed transmission cooperation memoranda of understanding with Midwest Independent



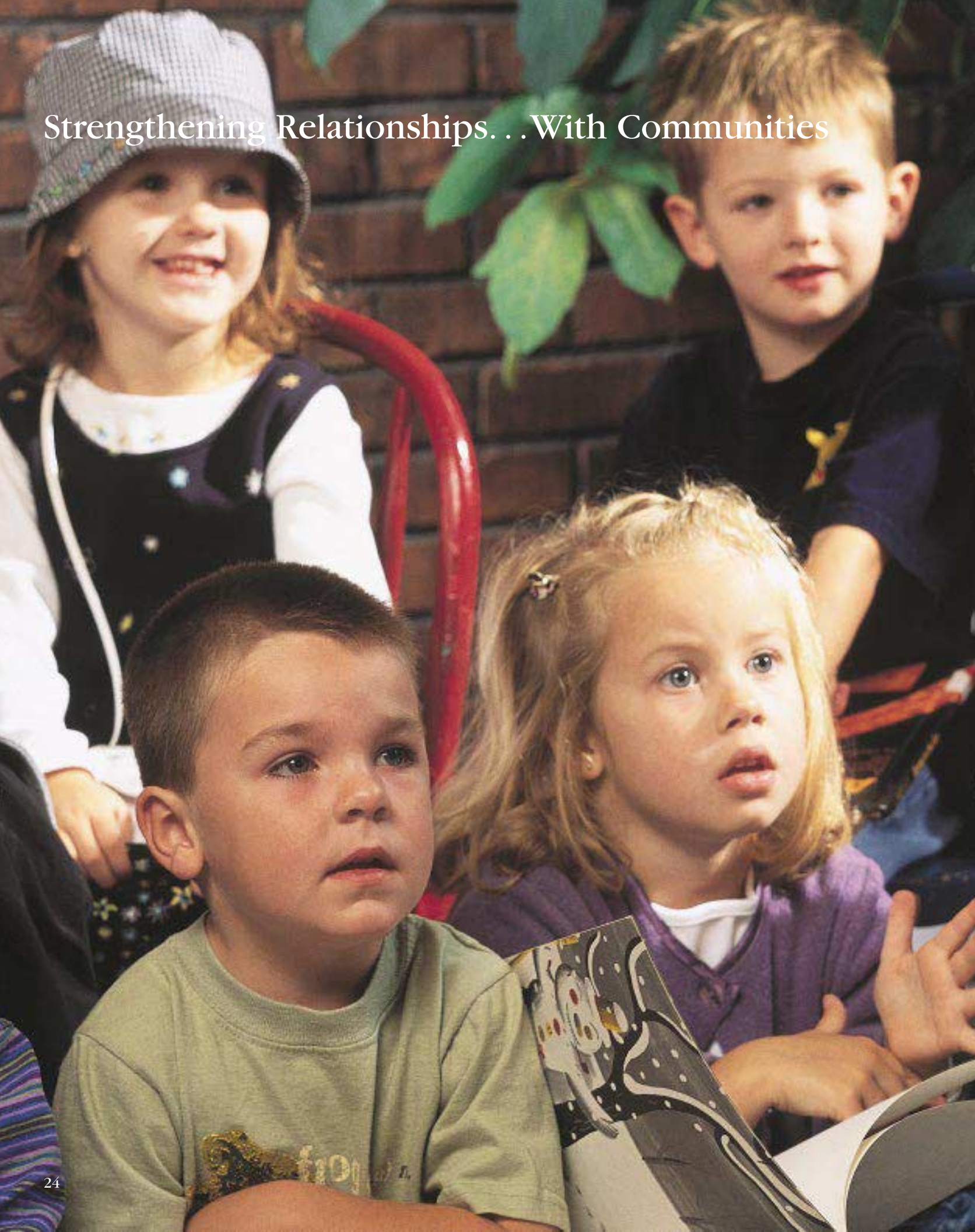
System Operator, Southern Company, and Entergy. These actions help develop a framework for inter-regional coordination and a more seamless power market in the Southeast.

TVA's Bryant Beames and Saturn's Ken Mounts led the award-winning energy-conservation team.

## "Energy Hunters" Save Saturn \$1 Million a Year

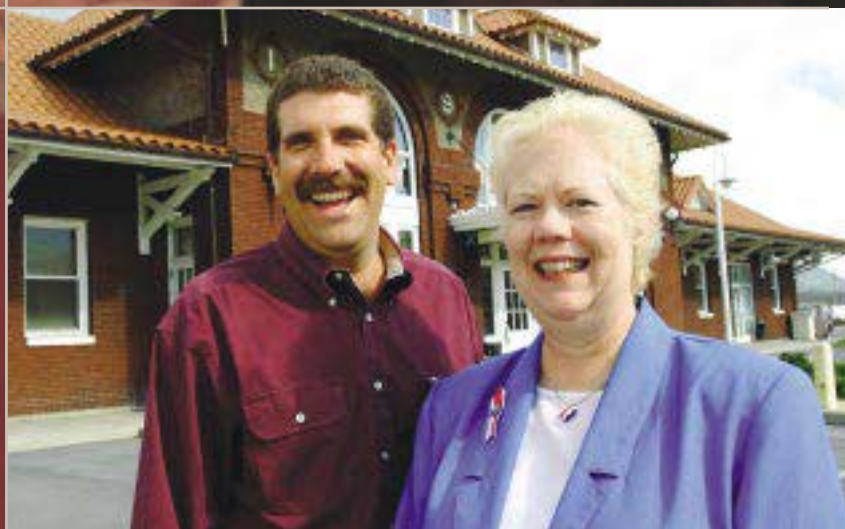
Working with TVA Industrial Marketing Manager Bryant Beames and Comprehensive Services Technician Kevin Whitehead, Saturn's Ken Mounts and his Energy Hunters conservation team cut more than \$1 million off the energy bills at Saturn's Spring Hill, Tennessee, plant in 2001. The team saved more than \$500,000 the previous year, beating out all other General Motors facilities in the area of energy conservation and earning the 2000 Crew Award from GM's Worldwide Facility Group.

Strengthening Relationships... With Communities



## Geothermal Heat Pump Breathes Life Into Town Library Budget

When the historic Clinchfield Railroad Depot (right) in Erwin, Tennessee, was chosen as the new site of the Colonel J.F. Toney Memorial Library, the town suddenly had three times as much space to heat in the winter and cool in the summer—on the same annual budget. “I knew the library board didn’t have the resources to have a high monthly energy bill,” says Lee Brown, manager of operations at Erwin Utilities, “so we decided to offer our assistance.” Brown asked TVA Commercial Marketing Representative Ed Colucci and Customer Service Coordinator Steve Lewis to conduct an energy analysis and suggest a way of solving the problem. The two



studied the site, then recommended a geothermal heat pump that could hold yearly operating costs to the same level as before. In fact, the first year’s utility bill, which had been projected to be \$5,736, came to only \$4,375. “The library expects to save \$46,800 over the 20-year life of the system,” Brown says. “Based on that success, our county high school has decided to install the same type of equipment.”

Lee Brown of Erwin Utilities and librarian Jane Garrett found an economical way to keep library listeners comfortable.

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## MANAGEMENT'S DISCUSSION AND ANALYSIS

### Overview

TVA's electric power system is one of the largest in the United States, having produced over 156 billion kilowatt-hours (kWh) of electricity in 2001. 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 Mississippi, Kentucky, Alabama, Georgia, 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 United States, established by Congress in 1933 primarily to develop and manage the resources of the Tennessee Valley region in order 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 nearly \$7 billion in 2001. 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 (commonly called "nonpower programs"). Congress has not provided any appropriations to TVA to fund such activities since 1999. Consequently, TVA pays 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 (2001, 2000, 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. Over the past several years, numerous bills have been introduced in Congress designed to restructure the electric-utility industry and to 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. Some key issues for TVA are: (1) whether TVA transmission and/or power rates will be regulated by the Federal Energy Regulatory Commission; (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 TVA power; and (4) whether TVA will have the right to recover its power system investments that might 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 will enable TVA and the distributors of TVA power to enjoy the full benefits of competition.

TVA worked closely with the Tennessee Valley Public Power Association, the association that represents all distributors of TVA power, and the Tennessee Valley Industrial Committee, the organization that represents large, directly served customers, to define a position on industry restructuring to be included in national restructuring legislation. The May 2000 consensus position includes the following key features, each of which would occur on the effective date of the restructuring legislation: (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 sold by competitors; (2) renegotiation of power contract terms, with distributors having a statutory right to terminate their contracts upon three years' notice; (3) distributors' right to take partial requirements from other suppliers in the absence of a different agreement with TVA on partial requirements; and (4) reduction of most of TVA's existing regulatory roles with respect to distributors.

Federal legislation will continue to be debated into the year 2002 and beyond. TVA's management has developed and will continue to develop plans and strategies designed to position TVA for competitive success in a restructured industry.

## Results of Operations

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

	2 0 0 1	2 0 0 0	1 9 9 9
Operating revenues	\$ 6,999	\$ 6,762	\$ 6,595
Operating expenses	(5,506)	(5,019)	(4,926)
Operating income	1,493	1,743	1,669
Other income, net	248	17	10
Interest expense, net	(1,633)	(1,736)	(1,777)
Net income (loss) before loss on impairment of assets and cumulative effect of change in accounting principle	108	24	(98)
Loss on impairment of assets	(3,419)	–	–
Cumulative effect of change in accounting principle	–	–	217
<b>Net income (loss)</b>	<b>\$ (3,311)</b>	<b>\$ 24</b>	<b>\$ 119</b>
<b>Sales (millions of kWh)</b>	<b>161,421</b>	<b>159,571</b>	<b>155,955</b>

### 2001 Compared with 2000

Net loss for 2001 was \$3,311 million, compared with net income of \$24 million for 2000. The reduction in earnings resulted primarily from a non-recurring charge for impairment of assets of \$3,419 million. Excluding this charge, net income would have been \$108 million, or \$84 million higher than 2000.

As of the end of 2001, the TVA Board determined that the book values of some of its existing assets were not appropriate in a competitive marketplace. Certain assets were identified as assets for which the estimated future cash flows provided through future rates were likely to be less than recorded book values. Consequently, TVA reduced the carrying amount of these assets by \$3,419 million and recognized an impairment loss (*see note 1—Impairment of assets*).

#### Operating Revenues

Operating revenues were \$6,999 million in 2001, compared with \$6,762 million in 2000. The \$237 million increase was primarily due to an increase in energy sales to municipalities and cooperatives as a result of the colder winter weather during 2001. Total kWh sales increased 1.8 billion kWh, from 159.6 billion in 2000 to 161.4 billion in 2001.

#### Operating Expenses

Operating expenses increased \$487 million, or 10 percent, from \$5,019 million in 2000 to \$5,506 million in 2001. This increase was largely due to higher operating and maintenance expense of \$217 million in 2001, primarily as a result of system growth and outage activities, and greater depreciation and amortization expense of \$236 million, primarily due to depreciation on new combustion turbines and accelerated amortization of regulatory assets (*see note 1—Other deferred charges—Accelerated amortization*).

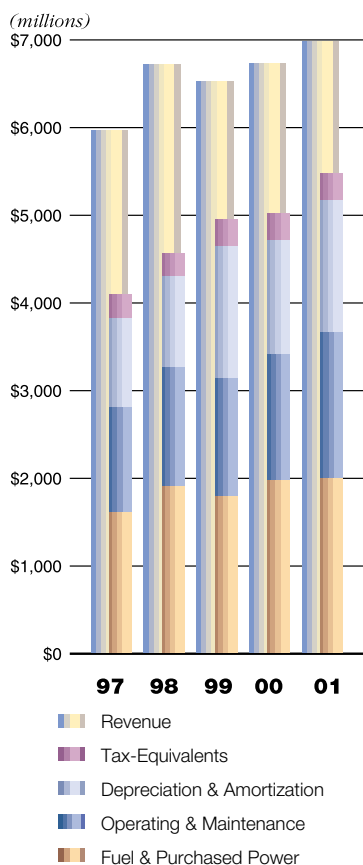
#### Other Income

TVA had net other income of \$248 million in 2001, compared with net other income of \$17 million in 2000. The 2001 net other income resulted primarily from the settlement of litigation.

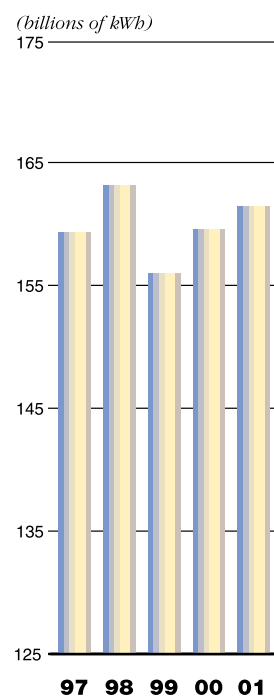
#### Interest Expense

Net interest expense declined \$103 million, from \$1,736 million in 2000 to \$1,633 million in 2001. Total outstanding indebtedness as of September 30, 2001, was \$25.4 billion, with an average interest rate of 6.57 percent. As of September 30, 2000,

#### Operating Revenues and Operating Expenses



#### Sales of Electricity



total outstanding indebtedness was \$26.0 billion, with an average interest rate of 6.83 percent.

### 2000 Compared with 1999

Net income for 2000 was \$24 million, compared with \$119 million for 1999. The reduction in earnings resulted primarily from the prior-year cumulative effect of change in accounting principle of \$217 million and increased operating expenses of \$93 million, offset by increased revenues of \$167 million and lower interest expense of \$41 million.

#### Operating Revenues

Operating revenues were \$6,762 million in 2000, compared with \$6,595 million in 1999. The \$167 million increase was primarily due to an increase in energy sales to municipalities and cooperatives as a result of the hot summer during 2000. 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 \$185 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—Other deferred charges—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, total outstanding indebtedness was \$26.4 billion, with an average interest rate of 6.83 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 in order to finance its growing power program. Since that time, TVA's power

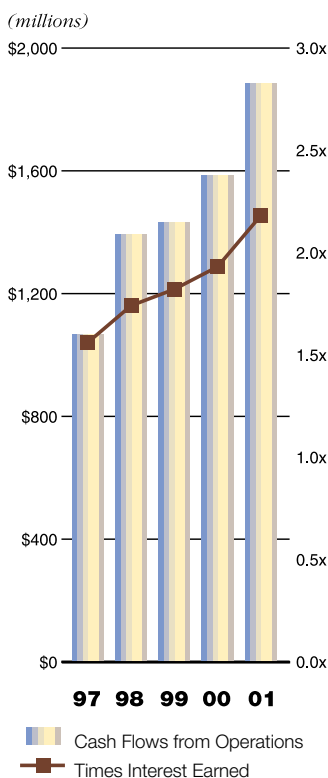
program has been required to be self-supporting. As a result, TVA funds its capital requirements through internal cash generation or through borrowings (subject to a congressionally mandated \$30 billion limit).

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 2001 was \$55 million. Total cumulative repayments and return on investment paid by TVA to the U.S. Treasury exceed \$3 billion.

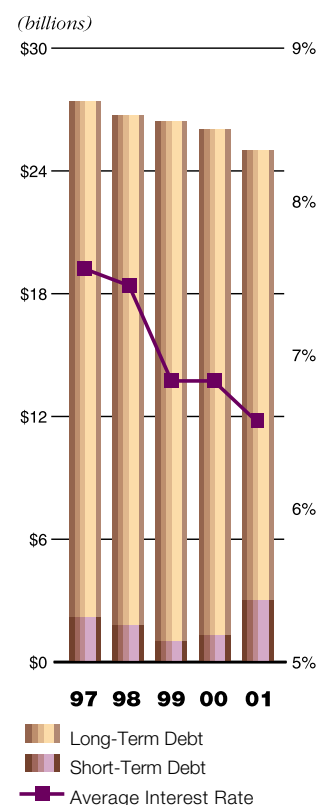
#### Cash Flows

Net cash provided by power program operations for 2001, 2000, and 1999 was \$1,885 million, \$1,584 million, and \$1,431 million.

Cash Flows from Operations and Times Interest Earned



Outstanding Debt and Interest Rate

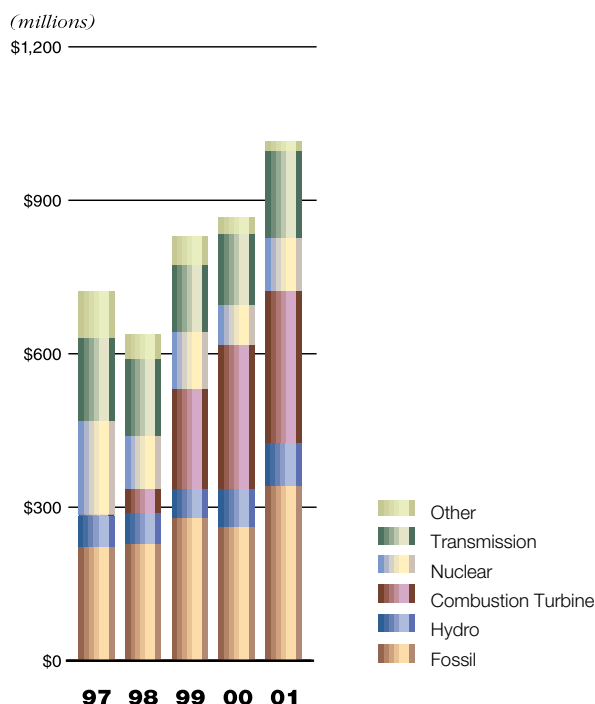


TVA's liquidity and capital measurements for its power program are:

	2 0 0 1	2 0 0 0	1 9 9 9
<b>Cash flow from operations (in millions)</b>	<b>\$ 1,885</b>	\$ 1,584	\$ 1,431
<b>Construction expenditures (in millions)</b>	<b>\$ 1,015</b>	\$ 867	\$ 829
<b>Operating cash flow to construction expenditures</b>	<b>1.86x</b>	1.83x	1.73x
<b>Reduction of total debt (in millions)</b>	<b>\$ 610</b>	\$ 391	\$ 308
<b>Times interest earned</b>	<b>2.18x</b>	1.93x	1.82x



## Construction Expenditures



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

Net cash used in investing activities for 2001, 2000, and 1999 was \$1,191 million, \$1,035 million, and \$956 million, respectively. The \$156 million increase from 2000 to 2001 was primarily due to an increase in construction expenditures of \$148 million, reflecting the construction of natural-gas combustion turbines for peaking power and the purchase of investments of \$119 million, offset by a decrease in nuclear fuel enrichment and fabrication costs of \$90 million.

Net cash used in financing activities for 2001, 2000, and 1999 was \$703 million, \$304 million, and \$763 million, respectively. For 2001, the cash used in financing activities reflects the aggregate net reduction of total outstanding debt of \$610 million, coupled with borrowing costs of \$29 million and payments to the U.S. Treasury of \$55 million.

### Capital Resources

During 2001, 2000, and 1999, TVA accessed the capital markets through cost-effective long-term financing structures and continued to expand its global and retail investor base. TVA offered global securities in January 2001 by issuing \$1 billion of 10-year bonds to investors in Europe, Asia, and the United States. In July TVA issued £250 million of sterling-denominated bonds (\$352 million) to meet the needs of sterling investors seeking diversification and high credit quality. In August TVA completed its third global offering by issuing \$1 billion of three-year bonds, with over 70 percent of the bonds distributed to international investors. TVA offered nine issues under its new retail targeted medium-term note program, *electronotes*<sup>sm</sup>. These issues ranged in size from \$21 million to more than \$63 million, for a total of \$356 million for the year.

## Market Risk

### Risk Policies

TVA has established a Risk Management Committee, which is charged with the responsibility of reviewing and approving controls and procedures for TVA-wide risk management activities, including the oversight of models and assumptions used to measure risk, the review of counterparty exposure limits, and the establishment of formal procedures regarding the use of financial hedging instruments.

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, commodity index swap contracts, and option contracts.

TVA is exposed to losses in the event of counterparties' nonperformance and accordingly has established controls to determine the creditworthiness of counterparties in order to mitigate exposure to credit risk.

With respect to hedging activities, TVA risk management policies provide for 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 accounted for hedging activities using the deferral method, and gains and losses were recognized in the financial statements when the related hedged transaction occurred. During 2001 TVA adopted Statement of Financial Accounting Standards (SFAS) No. 133, *Accounting for Derivative Instruments and Hedging Activities*. See further discussion related to TVA's adoption of SFAS No. 133 at *New Accounting Pronouncements* (page 34).

### Interest Rate and Foreign Currency Risk

TVA manages its daily cash needs through issuance of discount notes and other short-term borrowings. These borrowings 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 and interest rate swaps*). Based on TVA's overall interest rate exposure at September 30, 2001, 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 2001.

### 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 instruments, including forwards and option contracts. To monitor the risk of commodity trading activities, TVA employs several tools including a daily Value at Risk (VaR) model, a daily mark-to-market review, price risk analysis, and forward market monitoring. Based on TVA's overall commodity price risk exposure at September 30, 2001, management did 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 investment managers against certain market indices. Based on the expected performance of the portfolios, sufficient funds have been set aside to fully fund decommissioning obligations as estimated under guidelines established by the Nuclear Regulatory Commission. Therefore fluctuations in trust fund marketable security returns do not affect the earnings of TVA (*see note 1—Decommissioning costs, and note 9—Contingencies-Decommissioning costs*).

#### Forward Contracts

TVA enters into electricity forward contracts for the sole purpose of limiting or otherwise hedging its economic risks directly associated with meeting its power supply obligations in the Tennessee Valley region. These contracts qualify for normal purchase and normal sale accounting under SFAS No. 133, as interpreted by Derivative Implementation Group Issue C15. In addition, at September 30, 2001, management does not anticipate a materially adverse effect on TVA's financial position or results of operations as a result of market fluctuations.

## Key Indicators and Objectives

TVA's challenges include not only maintaining its high level of operational excellence in power generation, transmission, and river management, but also delivering value to each of three primary constituent groups: customers, stakeholders, and society. TVA provides value to society at large by continuing to fulfill its original mission of managing regional resources, promoting economic growth, and leading the electric utility industry in operational excellence. In order to continue in this role as a public power agency, TVA must demonstrate its value to society and industry as a leader in energy technology, environmental protection, human resource equality and opportunity, and operational excellence.

To effectively assess and improve its performance with respect to these value statements, TVA has grouped performance measures into three primary categories: economic measures, environmental measures, and societal measures. This three-pronged approach can be viewed as a "triple bottom line," with each category emphasized equally. This triple bottom line method of performance measurement gives TVA the framework to monitor, assess, and improve its performance in implementing its value statement of achieving excellence in business performance and public service.

## Other Issues

#### Spent 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, 2001, DOE has accepted no spent fuel. TVA's spent nuclear fuel storage facilities will be sufficient to provide storage space for spent fuel generated in TVA's system through 2004 for its Sequoyah Nuclear Plant, 2005 for its Browns Ferry

## Key Indicators and Objectives

Measure	Strategic Objective	Indicator	2 0 0 1	2 0 0 0
<b>Economic</b>	<i>Meet customers' needs with affordable, reliable electric power.</i>	<i>Load-not-served (minutes)</i>	6.0	7.9
		<i>Customer-connection-point interruptions (frequency)</i>	1.17	1.25
		<i>Fossil-plant equivalent availability factor</i>	85.3	80.0
<b>Environmental</b>	<i>Improve life in the Tennessee Valley through integrated management of the river system and environmental stewardship.</i>	<i>Watershed water quality (maximum 611)</i>	496	491
<b>Societal</b>	<i>Demonstrate leadership in sustainable economic development in the Valley.</i>	<i>Jobs added and retained</i>	47,808	47,341
		<i>All injury rate (per 100 employees)</i>	2.32	2.48

Nuclear Plant, and 2018 for its Watts Bar Nuclear Plant. TVA plans to extend storage capability through life-of-plant if necessary, by using dry spent fuel storage in independent installations located at the Browns Ferry and Sequoyah Nuclear Plants. Such spent fuel arrangements require Nuclear Regulatory Commission (NRC) approval. However, such arrangements have been approved by the NRC at other facilities throughout the United States.

#### **Low-Level Radioactive Waste**

Disposal costs for low-level radioactive waste that results from the normal operation of nuclear units have increased significantly in recent years. Pursuant to the Low-Level Radioactive Waste Policy Act, each state is responsible for the disposal of low-level radioactive waste generated in that state. States may form regional compacts to jointly fulfill their disposal responsibilities. The states of Tennessee and Alabama (where TVA's nuclear plants are located) have joined other southeastern states to form the Southeast Compact Commission for Low-Level Radioactive Waste Management. This commission regulates the siting of new disposal facilities and the disposal of low-level waste within the southeastern states.

Until July 1995, the low-level waste generators located in the southeastern states were required to dispose of their radwaste at the Barnwell, South Carolina, disposal facility. South Carolina, however, is no longer a member of the interstate compact serving the southeastern states and is now a member of the Atlantic Interstate Low-Level Radioactive Waste Compact. Recently South Carolina announced volume caps that cannot be exceeded due to the acceptance of waste from states that are not members of the Atlantic Interstate Low-Level Radioactive Waste Compact. After June 2009 no waste will be accepted from such states, which include Tennessee and Alabama.

After reviewing its storage and disposal options for low-level radwaste management, TVA began in 1999 to store the type of low-level radwaste that had previously been sent to Barnwell at the storage facilities at two TVA plant sites. These facilities are sized to handle anticipated storage needs for the foreseeable life of TVA's operating plants. TVA continues to send some dry radioactive waste to the Envirocare of Utah disposal facility in Clive, Utah, when economic conditions permit.

#### **Labor Agreements**

On September 30, 2001, TVA had 13,430 employees, of which 5,274 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 TVA Board has a longstanding policy of acknowledging and dealing with recognized representatives of its employees, which 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" con-

trols 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 the order.

TVA is a party to various other civil lawsuits and claims that have arisen in the ordinary course of business. Although the outcome of these other lawsuits and claims cannot be predicted with any certainty, it is the opinion of TVA counsel that their ultimate outcome should not have a materially 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 in order to comply with environmental requirements. Because these requirements change frequently, the total amount of such 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 (SO<sub>2</sub>), particulate matter, and nitrogen oxide (NO<sub>x</sub>). Coal-fired generating units such as TVA's are considered major sources of these pollutants, and TVA has implemented reduction strategies to reduce its emissions in order to comply with these national standards. The 1990 Amendments to the Clean Air Act established a number of new requirements relating to acid rain control, including additional requirements concerning SO<sub>2</sub> and NO<sub>x</sub> emissions. Through 2001, TVA had invested approximately \$1 billion in capital improvements for acid rain compliance. TVA plans to complete a switch to lower sulfur coals for acid rain compliance purposes by 2003. Installation of low-NO<sub>x</sub> burners and other NO<sub>x</sub> reduction steps are under way or complete at 49 coal-fired units.

During 1998 TVA adopted a new clean air strategy, including the installation of 10 selective catalytic reduction systems (SCRs), which will 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 now estimated to be \$1.2 billion, in addition to the amounts TVA has already spent to comply with other Clean Air Act requirements. TVA's new strategy should bring it into compliance with the 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 its plans, TVA is committed to improving air quality, and its NO<sub>x</sub> strategy was developed in part to help the region continue to improve its air quality.

Although TVA cannot, with certainty, project the costs of additional reductions in NO<sub>x</sub>, SO<sub>2</sub>, and particulate matter emissions beyond those required by the acid rain provisions of

the 1990 Clean Air Act Amendments, the costs of these additional reductions could exceed \$3 billion, inclusive of TVA's SCR project costs.

The EPA has instituted judicial and administrative actions against a number of utilities in the eastern U.S., including TVA, alleging that they have modified their coal-fired units without complying with new source review (NSR) requirements. TVA contends that the EPA's enforcement action 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. The EPA issued TVA an administrative order directing TVA to put new source controls on 14 of its coal-fired 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. The outcome of this litigation and the EPA proceedings is uncertain. It is not possible to predict with certainty what impact implementation of the EPA's order will have on TVA if TVA's challenge is unsuccessful. If the EPA substantially prevails, TVA could be required to incur capital costs in excess of \$3 billion by 2010 to 2012. Any additional controls that TVA could be required to install on units as a result of this matter, however, would also be sufficient to comply with reduction requirements that are anticipated under the other air quality programs discussed above. Thus, because of the other environmental program requirements, TVA would in any event probably incur a substantial portion of the costs that might result from the EPA's enforcement action, although the schedule for the installation of controls could be somewhat accelerated by the EPA 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 competitive disadvantage.

The Bush administration is reviewing the energy implications of the EPA's new NSR interpretation and the legal merits of the EPA's enforcement cases. TVA has determined that if the EPA's new interpretation becomes law, TVA could lose about 11 percent of the energy capabilities of its coal-fired system within three years through permit limits on the use of its units.

The EPA has also recently determined that mercury emissions from coal-fired power plants should be reduced. Regulations to achieve this have not yet been proposed, and the level of reduction and schedule for such reductions remain uncertain. However, TVA and other operators of coal-fired units could be required to invest in measures to reduce mercury emissions before 2010. Depending on the severity of such reductions, the costs could be substantial.

#### **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 main stem of the Tennessee River, the nation's fifth-largest river system. These resources are managed to accomplish the multiple objectives of flood control, navigation, electric power production, recreation, and environmental protection. Funding for these

programs has historically 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. Since 1999, Congress has not provided any appropriations to TVA to fund such activities. Consequently, TVA paid \$71 million in 2001 and \$72 million in 2000 for essential stewardship activities, primarily using power revenues and funding the remainder with a combination of user fees and other forms of nonpower revenues and fund balances unused in prior years. TVA spent approximately \$75 million for such activities in 1999.

During 1999 TVA received total federal appropriations of \$50 million, of which \$43 million was for essential stewardship activities and \$7 million was for the Land Between The Lakes National Recreation Area (LBL). As a result of the elimination of TVA's federal appropriations in 2000, administrative jurisdiction over LBL was transferred to the Secretary of Agriculture's U.S. Forest Service effective October 1, 1999. As part of this transfer, 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 continued to be liquidated in 2001. At September 30, 2001, TVA had transferred \$56 million of property and equipment to the U.S. Forest Service, with a remaining liability of approximately \$3 million of transition cost obligations.

TVA retains responsibility for management of the remaining nonpower assets and settlement of nonpower obligations. TVA remains committed to carrying out the essential stewardship activities related to its management of the Tennessee River system and TVA properties and to safeguarding and equitably distributing the public benefits that are central to the 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 \$439 million of regulatory assets (*see note 1—Other deferred charges, and Debt issue and reacquisition costs*), along with approximately \$4.1 billion of deferred nuclear units as of September 30, 2001 (*see note 1—Impairment of assets, and note 2*). In the event that restructuring of the utility industry changed the application of SFAS No. 71, TVA would be required to evaluate such regulatory assets and deferred nuclear units under the provisions of SFAS No. 101, *Regulated Enterprises—Accounting for the Discontinuation of Application of SFAS No. 71*. SFAS No. 101 establishes reporting criteria for an enterprise that ceases to meet the criteria for application of SFAS No. 71.

### New Accounting Pronouncements

Effective October 1, 2000, TVA adopted the provisions of SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, and SFAS No. 138, *Accounting for Certain Derivative Instruments and Certain Hedging Activities*. Qualifying derivative contracts consisted of various purchased option contracts and certain currency and interest rate swap agreements (see note 5—*Foreign currency and interest rate swaps*). 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 ratemaking purposes. At September 30, 2001, TVA reported other comprehensive loss of \$106 million, primarily related to foreign currency valuation and an interest rate swap (see note 5). Due to the nature of the financial instruments and related cash flows, the hedges are considered to be 100 percent effective.

In December 2000 the Derivatives Implementation Group of the Financial Accounting Standards Board (FASB) discussed several issues related to the power generation industry, and in June 2001 the group issued final guidance requiring certain power and fuel agreements to be marked to fair market value for each reporting period. The new accounting treatment is to be applied in the quarter following final resolution of the issues, which for TVA is the quarter ending September 30, 2001.

In June 2001 the FASB issued SFAS No. 143, *Accounting for Asset Retirement Obligations*, which requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset. The Statement is effective for financial statements issued for fiscal years beginning after June 15, 2002.

In October 2001 the FASB issued SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, which replaces SFAS No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*. The objectives of the project were to develop one accounting model for long-lived assets to be disposed of by sale, based on the framework established in SFAS No. 121, and to address significant implementation issues. SFAS No. 144 requires that those long-lived assets be measured at the lower of their carrying amount or fair value less cost to sell, whether reported in continuing operations or in discontinued operations. The provisions of SFAS No. 144 are effective for financial statements issued for fiscal years beginning after December 15, 2001, and, generally, are to be applied prospectively.

In June 2000 the FASB issued an exposure draft of a proposed Statement, *Accounting for the Impairment or Disposal of Long-Lived Assets and for Obligations Associated With Disposal Activities*. During the comment period, which ended October 13, 2000, respondents discussed significant issues. The FASB began its deliberations of those and other issues addressed in the Exposure Draft during the first quarter of 2001. The FASB plans to begin its redeliberations of issues on the accounting for costs associated with a disposal activity in the fourth quarter of calendar year 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.

### Forward-Looking Information

TVA's 2001 Annual Report contains forward-looking statements relating to future events and future performance. Any statements regarding expectations, beliefs, plans, projections, estimates, objectives, intentions, 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, evaluation of TVA's regulatory and deferred nuclear assets, impacts of potential legislation on TVA and the likelihood of enactment of such legislation, targets for TVA's future competitive position, and effects 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; the performance of TVA's generating facilities; fuel prices; demand for electricity; weather conditions; changes in accounting standards; and unforeseeable events.

## STATEMENTS OF INCOME—POWER PROGRAM

For the years ended September 30 ( <i>in millions</i> )	<b>2 0 0 1</b>	<b>2 0 0 0</b>	<b>1 9 9 9</b>
<b>Operating revenues</b>			
Sales of electricity			
Municipalities and cooperatives	\$ 5,908	\$ 5,676	\$ 5,510
Industries directly served	659	626	642
Federal agencies and other	330	361	357
Other revenue	102	99	86
Total operating revenues	<b>6,999</b>	6,762	6,595
<b>Operating expenses</b>			
Fuel and purchased power	1,989	1,962	1,777
Operating and maintenance	1,660	1,443	1,403
Depreciation and amortization	1,312	1,185	1,181
Tax-equivalents	315	308	304
Accelerated amortization ( <i>notes 1 and 8</i> )	230	121	261
Total operating expenses	<b>5,506</b>	5,019	4,926
<b>Operating income</b>	<b>1,493</b>	1,743	1,669
Other income, net	248	17	10
Income before interest expense, loss on impairment of assets, and cumulative effect of change in accounting principle	1,741	1,760	1,679
<b>Interest expense</b>			
Interest on debt	1,601	1,695	1,753
Amortization of debt discount, issue, and reacquisition costs, net	87	94	60
Allowance for funds used during construction	(55)	(53)	(36)
Net interest expense	<b>1,633</b>	1,736	1,777
<b>Income (loss) before loss on impairment of assets and cumulative effect of change in accounting principle</b>	<b>108</b>	24	(98)
Loss on impairment of assets ( <i>notes 1 and 2</i> )	(3,419)	–	–
Cumulative effect of change in accounting principle ( <i>notes 1 and 8</i> )	–	–	217
<b>Net income (loss)</b>	<b>\$ (3,311)</b>	\$ 24	\$ 119

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

## BALANCE SHEETS

## Assets

At September 30 ( <i>in millions</i> )	<i>Power Program</i>		<i>All Programs</i>	
	<b>2 0 0 1</b>	<b>2 0 0 0</b>	<b>2 0 0 1</b>	<b>2 0 0 0</b>
<b>Current assets</b>				
Cash and cash equivalents	\$ 339	\$ 348	\$ 343	\$ 361
Accounts receivable	720	688	720	688
Inventories at average cost and other				
Fuel	170	141	170	141
Other	272	249	272	249
Total current assets	<b>1,501</b>	1,426	<b>1,505</b>	1,439
<b>Property, plant and equipment</b>				
Completed plant	30,467	30,157	31,485	31,189
Less accumulated depreciation	(10,344)	(9,520)	(10,647)	(9,813)
Net completed plant	20,123	20,637	20,838	21,376
Construction in progress	923	793	923	793
Deferred nuclear generating units	4,110	6,325	4,110	6,325
Nuclear fuel and capital leases	487	559	487	559
Total property, plant and equipment	<b>25,643</b>	28,314	<b>26,358</b>	29,053
<b>Investment funds</b>	<b>725</b>	840	<b>725</b>	840
<b>Deferred charges and other assets</b>				
Loans and other long-term receivables	124	144	149	176
Debt issue and reacquisition costs	140	1,302	140	1,302
Other deferred charges	1,566	1,155	1,566	1,155
Total deferred charges and other assets	<b>1,830</b>	2,601	<b>1,855</b>	2,633
<b>Total assets</b>	<b>\$29,699</b>	\$ 33,181	<b>\$ 30,443</b>	\$ 33,965

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

## Liabilities and Proprietary Capital

	<i>Power Program</i>		<i>All Programs</i>	
	<b>2 0 0 1</b>	<b>2 0 0 0</b>	<b>2 0 0 1</b>	<b>2 0 0 0</b>
<b>Current liabilities</b>				
Accounts payable	\$ 710	\$ 531	\$ 715	\$ 544
Accrued liabilities	235	200	235	200
Accrued interest	389	438	389	438
Discount notes	3,016	1,274	3,016	1,274
Current maturities of long-term debt	1,984	2,350	1,984	2,350
Total current liabilities	<b>6,334</b>	4,793	<b>6,339</b>	4,806
<b>Other liabilities</b>	<b>2,806</b>	2,455	<b>2,806</b>	2,455
<b>Long-term debt</b>				
Public bonds—senior	20,375	21,261	20,375	21,261
Public bonds—subordinated	–	1,100	–	1,100
Unamortized discount and other adjustments	(524)	(608)	(524)	(608)
Total long-term debt	<b>19,851</b>	21,753	<b>19,851</b>	21,753
<b>Proprietary capital</b>				
Appropriation investment	508	528	4,863	4,883
Retained earnings reinvested in power program	306	3,652	306	3,652
Accumulated other comprehensive loss	(106)	–	(106)	–
Accumulated net expense of nonpower programs	–	–	(3,616)	(3,584)
Total proprietary capital	<b>708</b>	4,180	<b>1,447</b>	4,951
<b>Total liabilities and proprietary capital</b>	<b>\$29,699</b>	\$ 33,181	<b>\$ 30,443</b>	\$ 33,965



## STATEMENTS OF CASH FLOWS

For the years ended September 30 <i>(in millions)</i>	<i>Power Program</i>			<i>All Programs</i>		
	<b>2 0 0 1</b>	<b>2 0 0 0</b>	<b>1 9 9 9</b>	<b>2 0 0 1</b>	<b>2 0 0 0</b>	<b>1 9 9 9</b>
<b>Cash flows from operating activities</b>						
Net power income (loss)	\$ (3,311)	\$ 24	\$ 119	\$ (3,311)	\$ 24	\$ 119
Net expense of nonpower programs	–	–	–	(32)	(28)	(96)
Items not requiring (providing) cash						
Depreciation and amortization	1,471	1,289	1,250	1,482	1,299	1,263
Accelerated amortization	230	121	261	230	121	261
Allowance for funds used during construction	(55)	(53)	(36)	(55)	(53)	(36)
Nuclear fuel amortization	158	177	177	158	177	177
Cumulative effect of change in accounting principle	–	–	(217)	–	–	(217)
Loss on impairment of assets	3,419	–	–	3,419	–	–
Other, net	(45)	25	(26)	(33)	25	–
Changes in current assets and liabilities						
Accounts receivable	(42)	42	65	(42)	42	65
Inventories and other	(60)	19	(35)	(60)	19	(35)
Accounts payable and accrued liabilities	205	61	(19)	197	42	(21)
Accrued interest	(49)	(26)	(23)	(49)	(26)	(23)
Other, net	(36)	(95)	(85)	(36)	(95)	(85)
Net cash provided by operating activities	<b>1,885</b>	1,584	1,431	<b>1,868</b>	1,547	1,372
<b>Cash flows from investing activities</b>						
Construction expenditures	(1,015)	(867)	(829)	(1,015)	(867)	(830)
Allowance for funds used during construction	55	53	36	55	53	36
Nuclear fuel	(94)	(184)	(135)	(94)	(184)	(135)
Other, net	(137)	(37)	(28)	(129)	(38)	(21)
Net cash used in investing activities	<b>(1,191)</b>	(1,035)	(956)	<b>(1,183)</b>	(1,036)	(950)
<b>Cash flows from financing activities</b>						
Long-term debt						
Issues	2,708	2,250	4,506	2,708	2,250	4,506
Redemptions	(5,069)	(2,944)	(4,046)	(5,069)	(2,944)	(4,046)
Short-term borrowings, net	1,742	292	(775)	1,742	292	(775)
Proceeds from combustion turbine financing	–	300	–	–	300	–
Financing costs, net	(29)	(148)	(391)	(29)	(148)	(391)
Congressional appropriations	–	–	–	–	–	50
Payments to U.S. Treasury	(55)	(54)	(57)	(55)	(54)	(57)
Other, net	–	–	–	–	(6)	–
Net cash used in financing activities	<b>(703)</b>	(304)	(763)	<b>(703)</b>	(310)	(713)
Net change in cash and cash equivalents	(9)	245	(288)	(18)	201	(291)
Cash and cash equivalents at beginning of period	348	103	391	361	160	451
<b>Cash and cash equivalents at end of period</b>	<b>\$ 339</b>	<b>\$ 348</b>	<b>\$ 103</b>	<b>\$ 343</b>	<b>\$ 361</b>	<b>\$ 160</b>

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

## STATEMENTS OF CHANGES IN PROPRIETARY CAPITAL—POWER PROGRAM

For the years ended September 30 <i>(in millions)</i>	2 0 0 1	2 0 0 0	1 9 9 9
Retained earnings reinvested at beginning of period	\$ 3,652	\$ 3,662	\$ 3,580
Net income (loss)	(3,311)	24	119
Return on appropriation investment	(35)	(34)	(37)
Retained earnings reinvested at end of period	306	3,652	3,662
Accumulated other comprehensive loss	(106)	—	—
Appropriation investment at beginning of period	528	548	568
Return of appropriation investment	(20)	(20)	(20)
Appropriation investment at end of period	508	528	548
<b>Proprietary capital at end of period</b>	<b>\$ 708</b>	<b>\$ 4,180</b>	<b>\$ 4,210</b>

## STATEMENTS OF COMPREHENSIVE INCOME (LOSS)—POWER PROGRAM

For the years ended September 30 <i>(in millions)</i>	2 0 0 1	2 0 0 0	1 9 9 9
Net income (loss)	\$ (3,311)	\$ 24	\$ 119
Accumulated other comprehensive loss	(106)	—	—
<b>Comprehensive income (loss)</b>	<b>\$(3,417)</b>	<b>\$ 24</b>	<b>\$ 119</b>

## STATEMENTS OF NET EXPENSE AND COMPREHENSIVE LOSS—NONPOWER PROGRAMS

For the years ended September 30 <i>(in millions)</i>	2 0 0 1	2 0 0 0	1 9 9 9
Water and Land Stewardship	\$ 32	\$ 26	\$ 72
Land Between The Lakes	—	—	19
Economic Development	—	2	5
<b>Net expense and comprehensive loss <i>(note 10)</i></b>	<b>\$ 32</b>	<b>\$ 28</b>	<b>\$ 96</b>

## STATEMENTS OF CHANGES IN PROPRIETARY CAPITAL—NONPOWER PROGRAMS

For the years ended September 30 <i>(in millions)</i>	2 0 0 1	2 0 0 0	1 9 9 9
Proprietary capital at beginning of period	\$ 771	\$ 860	\$ 908
Congressional appropriations	—	—	50
Net expense	(32)	(28)	(96)
Transfers to other federal agencies <i>(note 10)</i>	—	(56)	—
Other, net	—	(5)	(2)
<b>Proprietary capital at end of period</b>	<b>\$ 739</b>	<b>\$ 771</b>	<b>\$ 860</b>

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

## NOTES TO 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 includes 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. These programs are now funded largely with power funds. Certain nonpower activities are also funded with various revenues and user fees. See note 10 for a discussion relating to the future funding of TVA's nonpower programs.

Power rates are established by the TVA Board of Directors as authorized by the TVA Act. The TVA 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 and counties in lieu of taxes; and debt service on outstanding indebtedness.

Five municipal customers, which account for an aggregate of total power sales of 27 percent for 2001, 2000, and 1999, purchase power from TVA under long-term contracts that require 10 years' notice to terminate.

**Fiscal year**

Unless otherwise indicated, years (2001, 2000, 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's 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 nonpower 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 3.28 percent for 2001, 3.27 percent for 2000, and 3.28 percent for 1999.

**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—Contingencies-Decommissioning costs*).

**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, 2001, other deferred charges included total unamortized regulatory assets of \$439 million, which represents certain charges related to the closure and removal of nuclear units (*see note 1 and note 9—Contingencies-Decommissioning costs*). At September 30, 2000, the unamortized balances of regulatory assets of \$372 million consisted of \$228 million, representing a transition obligation for certain postemployment benefits, and \$144 million, representing certain charges related to the closure and removal of nuclear units (*see note 1 and note 9—Contingencies-Decommissioning costs*). The \$228 million transition obligation for certain postemployment benefits was fully amortized during 2001. Effective for 1999, TVA reclassified an additional \$332 million from nuclear fuel inventory to deferred charges; this was subsequently charged against earnings in 1999 and 2000. The effect of this change was to increase 1999 expense by approximately \$111 million and to increase 2000 expense by approximately \$221 million.

ACCELERATED AMORTIZATION. Annual provisions for amortization of deferred charges are adjusted as necessary in order to achieve certain earnings levels. Such earnings levels are set forth in resolutions adopted annually by the TVA Board of Directors in connection with the rate review process. The targeted earnings levels are based on the requirements of the TVA Act and the Basic TVA Power Bond Resolution (*see note 6—Borrowing authority*). Such adjustments may result in either contraction

or extension of 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 2001, 2000, and 1999, TVA accelerated amortization of certain regulatory assets by \$230 million, \$121 million, and \$261 million, respectively, under the policy.

**NUCLEAR REFUELING OUTAGE COSTS.** Nuclear refueling outage maintenance costs are deferred and amortized on a straight-line basis over the estimated period until the next refueling outage. The amount of deferred outage costs at September 30, 2001, 2000, and 1999, was \$57 million, \$73 million, and \$63 million, respectively.

### Investment funds

Investment funds consist primarily of trust funds designated to fund nuclear decommissioning requirements (*see note 9—Contingencies-Decommissioning costs*). These funds are invested in portfolios of securities generally designed to earn returns in line with overall equity market performance. These investments are classified as trading securities and carried at fair value.

### Debt issue and reacquisition costs

Debt issue and reacquisition expenses, call premiums, and other related costs are deferred and amortized (accrued) on a pooled straight-line basis over the weighted average life of TVA's debt portfolio.

TVA has incurred premiums related to certain advanced refundings and has also received and paid premiums in connection with the monetization of certain call provisions. In accordance with regulatory practices, TVA defers and amortizes such premiums on a pooled straight-line basis over the weighted average life of its public debt portfolio. In 2001, TVA charged deferred costs of \$789 million against earnings (*see note 1—Impairment of assets*). The unamortized balances of such regulatory assets at September 30, 2001 and 2000, were \$140 million and \$607 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 receipts from the prior year's sale of power, excluding sales to other federal agencies and off-system sales with other utilities, with a provision for minimum payments under certain circumstances.

### Impairment of assets

In conjunction with its periodic financial review, TVA identified certain assets for which the estimated future cash flows provided through future rates were likely to be less than recorded book values. Accordingly, TVA reduced the carrying amount of these assets by a total of \$3,419 million, of which \$2,220 million was attributable to deferred nuclear generating units, \$789 million was attributable to deferred debt refinancing costs, and \$410 million was attributable to plant held for future use. The ultimate disposition or use of these assets is unaffected by the asset value reductions (*see note 1—Debt issue and reacquisition costs, and notes 2 and 3*) in accordance with SFAS No. 71. This nonrecurring charge will have no effect on TVA's statutory obligation to set rates at levels necessary to produce revenues sufficient to pay the service on its debt and other expenses specified in the TVA Act.

### 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 not covered by Medicare. 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—Contingencies-Nuclear insurance*).

### Impact of new accounting standards

Effective October 1, 2000, TVA adopted SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, as amended by SFAS No. 138, which requires that certain derivative instruments be recorded on the balance sheet as either an asset or a liability measured at fair value. Changes in the fair value of derivatives are recognized in either net income or other comprehensive income, depending on the designated purpose of the derivative. For 2001, accumulated other comprehensive loss primarily consists of mark-to-market bond swap valuation adjustments of \$106 million.

In June 2001 the FASB issued SFAS No. 143, *Accounting for Asset Retirement Obligations*, which requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset. The Statement is effective for financial statements issued for fiscal years beginning after June 15, 2002.

In October 2001 the FASB issued SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, which replaces SFAS No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*. The objectives of these FASB standards were to develop one accounting model for long-lived assets to be disposed of by sale, based on the framework established in SFAS No. 121, and to address significant implementation issues. SFAS No. 144 requires that those long-lived assets be measured at the lower of the carrying amount or fair value less cost to sell, whether reported in continuing operations or in discontinued operations. The provisions of SFAS No. 144 are effective for financial statements issued for fiscal years beginning after December 15, 2001, and, generally, are to be applied prospectively.

At the present time, TVA is unable to determine whether the implementation of these standards will be material to its results of operations or financial position.

### 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 these estimates.

### Other

Certain reclassifications have been made to the 1999 and 2000 financial statements to conform to the 2001 presentation.

## 2. Nuclear power program

The nuclear power program at September 30, 2001, 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	\$ 2,800	\$ 39	\$ —	\$ 149
Sequoyah	2	2,442	1,846	77	—	102
Watts Bar	1	1,270	6,076	7	—	44
Bellefonte	—	—	—	—	4,110	—
Raw materials	—	—	—	—	—	20
<b>Total</b>	<b>5</b>	<b>6,092</b>	<b>\$ 10,722</b>	<b>\$ 123</b>	<b>\$ 4,110</b>	<b>\$ 315</b>

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

Browns Ferry 1 was taken offline in 1985 for modifications and improvements and will remain in an inoperative status until its ultimate disposition is determined. The undepreciated cost of Browns Ferry 1 of \$53 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 2002 expenditures for the three deferred units are limited to lay-up, maintenance, and ensuring that options remain viable.

In December 1994 TVA determined that 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 indicated that one of the most economical fossil conversion strategies would be 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 future decisions on TVA's deferred units will ultimately impact the method of cost recovery, the TVA Board determined as of the end of 2001 that the values of some of its existing assets were not appropriate in a competitive marketplace. Certain assets, Bellefonte 1 and 2 and Watts Bar 2, were identified as assets for which the estimated future values are less than recorded book values. Consequently, for 2001 TVA revalued these assets downward by \$2,220 million and recognized an impairment loss. The Board will establish rate adjustments and operating policies to ensure full recovery of the remaining cost of the Bellefonte units and compliance with the requirements of the TVA Act (*see note 1—Impairment of assets*).

## 3. Completed plant—power program

Completed plant of the power program consists of the following at September 30 after a downward revaluation of \$410 million to Other plant (*see note 1—Impairment of assets*):

<i>(in millions)</i>	2001			2000		
	Cost	Accumulated Depreciation	Net	Cost	Accumulated Depreciation	Net
Fossil	\$ 8,324	\$ 3,877	\$ 4,447	\$ 8,150	\$ 3,616	\$ 4,534
Combustion turbine	837	251	586	629	221	408
Nuclear	14,747	4,025	10,722	14,719	3,567	11,152
Transmission	3,672	1,211	2,461	3,473	1,154	2,319
Hydro	1,623	556	1,067	1,517	536	981
Other	1,264	424	840	1,669	426	1,243
<b>Total</b>	<b>\$ 30,467</b>	<b>\$ 10,344</b>	<b>\$ 20,123</b>	<b>\$ 30,157</b>	<b>\$ 9,520</b>	<b>\$ 20,637</b>

## 4. Proprietary capital

### 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 appropriation 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 2001, 2000, and 1999 as a repayment of the appropriation investment. In addition, TVA paid the U.S. Treasury \$35 million in 2001, \$34 million in 2000, and \$37 million in 1999 as a return on the appropriation investment. The return is based on the appropriation investment as of the beginning of the year and on the computed average interest rate payable by the U.S. Treasury on its total marketable public obligations as of the same date (6.63 percent at September 30, 2000).

## 5. Risk management activities and derivative transactions

TVA has established a Risk Management Committee, which is charged with the responsibility of reviewing and approving controls and procedures for TVA-wide risk management activities, including the oversight of models and assumptions used to measure risk, the review of counterparty exposure limits, and the establishment of formal procedures regarding the use of financial hedging instruments.

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, commodity index swap contracts, and option contracts.

TVA is exposed to losses in the event of counterparties' nonperformance and accordingly has established controls to determine the creditworthiness of counterparties in order to mitigate exposure to credit risk.

With respect to hedging activities, TVA risk management policies provide for 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 accounted for hedging activities using the deferral method, and gains and losses were recognized in the financial statements when the related hedged transaction occurred. During 2001, TVA adopted SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*. See further discussion related to TVA's adoption of SFAS No. 133 at *Adoption of new accounting standard* (below).

### Adoption of new accounting standard

During 2001, TVA adopted SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*. In accordance with SFAS No. 133, certain commodity and interest rate swap contracts were marked to market and resulted in a \$106 million loss for 2001. Since such contracts represent cash flow hedges of certain commodity and debt transactions, the loss has been recognized in accumulated other comprehensive loss. As of September 30, 2001, less than \$1 million of deferred net losses on derivative instruments accumulated in other comprehensive loss is expected to be reclassified to earnings during the next 12 months. Because of the highly effective nature of its hedging transactions, TVA was not required to recognize losses in the Statements of Income due to the ineffectiveness of cash flow hedges. If any loss/(gain) were to

### Accumulated other comprehensive loss

SFAS No. 130, *Reporting Comprehensive Income*, requires the disclosure of comprehensive income or loss to reflect changes in capital that result from transactions and economic events from nonowner sources. The amounts included in other comprehensive loss were \$106 million for 2001 and \$0 for 2000 and 1999. The loss of \$106 million for 2001 represents mark-to-market valuation adjustments for certain derivative instruments (see note 1—*Impact of new accounting standards*, and note 5—*Adoption of new accounting standard*).

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.

### Commodity contracts

TVA enters into contracts that hedge cash flow exposures to market fluctuations in the price and delivery of certain commodities. TVA expects to take or make delivery, as appropriate, under these forward contracts. Accordingly, these contracts qualify for normal purchase and normal sale accounting under SFAS No. 133, as interpreted by the Derivative Implementation Group (DIG). DIG Issue C15 describes the criteria that must be met in order for such contracts to qualify for the use of normal purchase and normal sale accounting. DIG Issue C16 describes the circumstances under which certain contracts do not qualify for the use of normal purchase and normal sale accounting.

Gains and losses on cash flow hedges are deferred in other comprehensive income and recognized as adjustments to the carrying amount of the items hedged. Deferral of the gains and losses continues until the items hedged are recognized in income. Gains and losses on derivatives not qualifying for hedge accounting are deferred in accordance with SFAS No. 71.

### Foreign currency and interest rate swaps

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 entered into a currency swap to hedge fluctuations in the DM exchange rate. TVA also entered into currency swap contracts during 2001 and 1999 as hedges for sterling-denominated debt transactions in which TVA issued £250 million and £200 million of bonds, respectively. Any gains and losses on the debt instruments due to the foreign currency transactions are offset by losses or gains on the swap contracts. At September 30, 2001 and 2000, the currency transactions had resulted in net translation gains of \$322 million and \$360 million, respectively. However, the net translation gains were offset by corresponding losses on the swap contracts. Additionally, in 1997 TVA issued \$300 million of inflation-index 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 receive floating, pay fixed interest rate swap agreement.

## 6. 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 payment to the U.S. Treasury (*see note 4—Appropriation investment—power program*).

### Short-term debt

The weighted average rates applicable to short-term debt outstanding in the public market as of September 30, 2001 and 2000, were 2.90 percent and 6.53 percent, respectively. During 2001, 2000, and 1999, the maximum outstanding balances of short-term borrowings held by the public were (in millions) \$3,459, \$3,943, and \$4,701, respectively. The average amounts (and weighted average interest rates) of short-term borrowings were approximately (in millions) \$1,994 (4.90 percent), \$2,628 (5.94 percent), and \$1,945 (5.01 percent), respectively.

### Put and call options

Bond issues of \$4.7 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 and at call prices ranging from 100 percent to 106.3 percent of the principal amount. Additionally, TVA has bond issues of \$2.6 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 \$121 million, which matures

in April 2036, is redeemable in 2006 by the bondholders; a second issue totaling \$1.5 billion, which matures in April 2036, is redeemable in 2006 at the option of the bondholders; and a third issue totaling \$984 million, which matures in May 2012, is redeemable in 2002 at the option of the bondholders. Each of these issues is reported in the debt schedule, with maturity dates corresponding to the earliest redeemable dates. Fifteen additional issues totaling \$849 million, with maturity dates ranging from 2005 to 2030, include a provision for right of redemption upon the death of a beneficial owner in certain specified circumstances.

Additionally, TVA has two issues of Putable 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.

### Interest and capital costs

During 2001, 2000, and 1999, cash paid for interest on outstanding indebtedness (net of amount capitalized) was \$1,471 million, \$1,669 million, and \$1,740 million, respectively. In addition to paying interest on outstanding indebtedness, TVA is required by the TVA Act 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—Appropriation investment—power program*).

*Debt outstanding at September 30, 2001 and 2000, consisted of the following:*

*(in millions)*

	2001	2000
<b>Short-term debt</b>		
Discount notes (net of discount)	\$ 3,016	\$ 1,274
Current maturities of long-term debt—5.00% to 7.14%	1,984	2,350
Total short-term debt	5,000	3,624
<b>Long-term debt</b>		
Senior		
Maturing in 2002—6.00% to 7.14%	—	2,000
Maturing in 2003—6.125%	—	1,250
Maturing in 2004—4.75% to 5.00%	1,400	400
Maturing in 2005—6.375% to 7.15%	2,065	2,065
Maturing in 2006—5.25% to 7.125%	2,670	2,621
Maturing in 2007 through 2045—5.375% to 8.25%	14,240	12,925
Subordinated		
Maturing in 2045 and 2046—7.50% to 8.00%	—	1,100
Total long-term debt	20,375	22,361
<b>Total indebtedness</b>	<b>\$25,375</b>	<b>\$ 25,985</b>

## 7. Fair value of financial instruments

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TVA uses the methods and assumptions described below to estimate the fair value of each significant class of financial instrument. The fair market value of the financial instruments held at September 30, 2001, 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

Because of the short-term maturity of these instruments, the carrying amount approximates fair value.

### Investment funds

At September 30, 2001, 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 discounted rate equal to lending rates for similar loans made

to borrowers with similar credit ratings and for the same remaining maturities. The carrying amount approximates fair value.

### 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. At September 30, 2001, the carrying amount of long-term debt was \$22,359 million compared with a fair value of \$23,139 million, and at September 30, 2000, the carrying amount of long-term debt was \$24,711 million compared with a fair value of \$23,840 million.

### Other financing obligations

In 2000, TVA received approximately \$300 million in proceeds by entering into a lease-leaseback transaction for eight new peaking combustion turbine units. Due to the nature of the transaction, the carrying amount of the obligation and the fair market value are equal. At September 30, 2001 and 2000, the balance of the obligation was \$271 million and \$300 million, respectively.

## 8. Benefit plans

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### Pension plan

TVA has a defined benefit plan for most of its full-time 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 by the TVA and TVARS boards of directors, which in no event are less than the amounts 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.

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 rate 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 the 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, the plan was amended such that the rate may not be less than 6.0 percent or more than 10.0 percent. The actual change in the CPI for 2001 and 2000 was 3.2 percent and 2.0 percent, which resulted in interest rates of 6.2 percent and 6.0 percent, respectively.

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 purpose of determining the market-related value of pension assets, an action that resulted in a one-time gain of approximately \$217 million. This gain is presented in the Statements 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 7.5 percent in 2001, 8.0 percent in 2000, and 7.5 percent in 1999. The assumed annual rates of increase in future compensation levels for 2001, 2000, and 1999 ranged from 3.3 percent to 8.3 percent. The expected long-term rate of return on plan assets was 9.0 percent for 2001 and 10.0 percent for 2000 and 1999.

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



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

(in millions)	Pension Benefits		Other Postretirement Benefits	
	2 0 0 1	2 0 0 0	2 0 0 1	2 0 0 0
<b>Change in benefit obligation</b>				
Benefit obligation at beginning of year	\$ 5,461	\$ 5,031	\$ 133	\$ 151
Service cost	79	76	2	5
Interest cost	424	367	10	11
Plan participants' contributions	28	32	43	36
Amendments, including special events	–	250	–	16
Actuarial (gain)/loss	268	20	93	(33)
Net transfers to variable fund/401(k) plan	9	(23)	–	–
Expenses paid	(4)	(3)	–	–
Benefits paid	(307)	(289)	(60)	(53)
<b>Benefit obligation at end of year</b>	<b>\$5,958</b>	<b>\$ 5,461</b>	<b>\$ 221</b>	<b>\$ 133</b>
<b>Change in plan assets</b>				
Fair value of plan assets at beginning of year	\$ 7,312	\$ 6,842	\$ –	\$ –
Adjustment to reconcile to system asset value	(1)	(13)	–	–
Actual return on plan assets	(1,159)	764	–	–
Plan participants' contributions	28	32	43	36
Net transfers to variable fund/401(k) plan	9	(23)	–	–
Employer contributions	–	3	17	17
Expenses paid	(4)	(4)	–	–
Benefits paid	(307)	(289)	(60)	(53)
<b>Fair value of plan assets at end of year</b>	<b>\$5,878</b>	<b>\$ 7,312</b>	<b>\$ –</b>	<b>\$ –</b>
<b>Funded status</b>				
Unrecognized net actuarial (gain)/loss	\$ (80)	\$ 1,851	\$ (221)	\$ (133)
Unrecognized prior service cost	418	(1,649)	62	(32)
Unrecognized prior service cost	456	492	(43)	(48)
<b>Prepaid (accrued) benefit cost</b>	<b>\$ 794</b>	<b>\$ 694</b>	<b>\$(202)</b>	<b>\$ (213)</b>

(in millions)	Pension Benefits			Other Postretirement Benefits		
	2 0 0 1	2 0 0 0	1 9 9 9	2 0 0 1	2 0 0 0	1 9 9 9
<b>Components of net periodic benefit cost</b>						
Service cost	\$ 78	\$ 76	\$ 94	\$ 2	\$ 5	\$ 5
Interest cost	424	367	374	10	11	14
Expected return on plan assets	(599)	(602)	(591)	n/a	n/a	n/a
Amortization of prior service cost	36	24	24	(4)	(6)	(2)
Amortization of transition obligation	–	–	–	–	–	–
Recognized net actuarial loss	(39)	(19)	–	(2)	–	–
<b>Net periodic benefit cost</b>	<b>(100)</b>	<b>(154)</b>	<b>(99)</b>	<b>6</b>	<b>10</b>	<b>17</b>
Special events	–	–	(217)	–	–	–
<b>Total benefits cost/(income)</b>	<b>\$ (100)</b>	<b>\$ (154)</b>	<b>\$ (316)</b>	<b>\$ 6</b>	<b>\$ 10</b>	<b>\$ 17</b>

### Other postretirement benefits

TVA sponsors an unfunded postretirement plan that provides for non-vested contributions toward the cost of certain retirees' medical coverage. This plan formerly covered all retirees participating in the TVA medical plan, and TVA's contributions were a flat dollar amount based on the participants' ages and years of service and certain payments toward the plan costs. This plan now operates on a much more limited basis, covering only 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, which resulted in approximately \$16 million in additional postretirement benefit obligations.

The annual assumed cost trend for covered benefits was 8.5 percent in 2001, decreasing by 0.5 percent per year to a level of 5.0 percent in 2008 and thereafter. For 2000 and 1999, annual trend rates of 9.0 percent and 9.5 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, 2001, by \$17 million/(\$16 million) and the aggregated service and interest cost components of net periodic postretirement benefit cost for 2001 by \$1 million/(\$1 million).

The weighted average discount rate used in determining the APBO

was 7.5 percent for 2001, 8.0 percent for 2000, and 7.5 percent for 1999. Any net unrecognized gain or loss resulting from experience different from that assumed or from changes in assumptions, and exceeding 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 and 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 was being amortized over approximately 15 years, whereby the annual expense approximated the expense that would have been recorded on an as-paid basis. In 2000 TVA accelerated amortization of the regulatory asset by approximately \$80 million, and in 2001 it accelerated the amortization by \$194 million to complete the write-off of the regulatory asset. This acceleration was in accordance with TVA's accounting policy as previously described (*see note 1—Other deferred charges—Accelerated amortization*).

## 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, 2001, total \$36 million annually through 2006 and an aggregate of \$157 million thereafter, for a total commitment of \$337 million. Of this amount, \$164 million is interest.

**CONSTRUCTION COMMITMENTS.** TVA has approximately \$1 billion in long-term construction commitments consisting primarily of the purchase of generating assets of approximately \$410 million and emission control equipment of \$540 million. Terms of the contracts extend into 2007.

**FUEL PURCHASE COMMITMENTS.** TVA has approximately \$4 billion in long-term fuel purchase commitments ranging in terms of up to five years for the purchase of coal, and approximately \$1.5 billion in long-term commitments ranging in terms of up to 14 years for the purchase of enriched uranium and the fabrication of nuclear fuel assemblies.

**PURCHASED POWER.** TVA has agreements for the purchase of power from a 440-megawatt, lignite-fired electric generating plant and three smaller projects with a combined capacity of 62 megawatts. The agreement with the lignite-fired plant requires TVA to purchase the plant's output for a 30-year period beginning on the date of first generation, which is expected to occur in early 2002. Pricing of the contract includes fixed and variable components with minimum estimated power purchases approximating \$4 billion over the life of the contract. The remaining contracts are for a duration of 10 years beginning in 2001, with estimated payments

of \$30 million over the lives of the contracts. Costs under these contracts are included in fuel and purchased power and expensed as incurred.

**OTHER.** TVA has a long-term Interagency Agreement with the Department of Energy (DOE) to utilize TVA's Sequoyah and Watts Bar Nuclear Plants to produce tritium. This agreement, ending in 2035, requires DOE to reimburse TVA for costs incurred.

### Contingencies

**NUCLEAR INSURANCE.** The Price-Anderson Act sets forth an indemnification and limitation of liability plan for the U.S. nuclear industry. All Nuclear Regulatory Commission (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. With its six licensed units, TVA could be required to pay a maximum of \$528 million per nuclear incident, but it would have to pay no more than \$60 million per incident in any one year.

TVA carries property and decontamination insurance of \$2.06 billion at each licensed nuclear plant to cover the cost of stabilizing or shutting down a reactor after an accident. Some of this insurance may require the payment of retrospective premiums up to a maximum of approximately \$28 million.

**CLEAN AIR DEVELOPMENTS.** Title IV of the Clean Air Act Amendments of 1990 (CAAA) 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. Compliance with these requirements has resulted in substantial expenditures for the reduction of emissions at TVA's coal-fired generating plants.

The Environmental Protection Agency (EPA) has been directed by the new administration to develop legislation aimed at achieving substantial additional reductions of SO<sub>2</sub>, NO<sub>x</sub>, and particulates from utility units. A number of bills have been introduced in Congress that would result in significant decreases in these emissions as well as carbon dioxide. The timing and content of such legislation remains highly uncertain, and it is unlikely that such legislation would be enacted before 2003 or 2004.

TVA's strategy for complying with the CAAA has included 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 these scrubbers and is on schedule to complete the changeover to lower-sulfur coal.

NO<sub>x</sub> reductions were required under the CAAA 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 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 and/or overfire air at 40 units and boiler optimization at the remaining 18 units. In 1996 TVA selected an early election option for four of these 58 units, which allows the four units at John Sevier Steam 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 II 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 option enables TVA to optimize the cost of NO<sub>x</sub> reduction while fully complying with the CAAA Title IV NO<sub>x</sub> requirements. In addition to its Title IV projects, TVA is in the process of installing selective catalytic reduction systems (SCRs) to further control NO<sub>x</sub> emissions at 25 of its coal-fired units. SCRs are state-of-the-art NO<sub>x</sub> pollution technology. This follows up on a commitment TVA has made to further reduce NO<sub>x</sub> emissions throughout its system. Installation of these SCRs will also comply with the EPA's recent State Implementation Plan NO<sub>x</sub> Reduction rule.

The EPA has finalized new, more stringent particulate matter standards and a rule designed to reduce regional haze. Both are currently in litigation. These actions may require TVA to make additional reductions of SO<sub>2</sub> emissions beyond those currently planned. TVA anticipates that compliance with the new regulations will be required after 2010. The EPA has also determined that mercury emissions from coal-fired plants should be reduced, but has yet to propose a rule to accomplish this. Depending on the severity of the mercury reductions required by the EPA, TVA could incur additional substantial capital costs for control of mercury. Mercury reductions are expected to be required around 2007.

Expenditures related to the Clean Air projects during 2001 and 2000 were approximately \$200 million and \$125 million, respectively. The cost of the SCR strategy is now estimated to be \$1.2 billion. The total cost of future compliance with NO<sub>x</sub>, SO<sub>2</sub>, and particulate matter requirements cannot reasonably be determined at this time because of the uncertainties surrounding emerging EPA regulations, resultant compliance strategies, potential for the development of new emission control technologies, court litigation, and future amendments to the Clean Air Act. However, total costs could exceed \$3 billion, inclusive of the costs of the planned SCRs.

The EPA has instituted judicial and administrative actions against a number of utilities in the eastern U.S., including TVA, alleging that they have modified their coal-fired units without complying with new source review (NSR) requirements. TVA contends that the EPA's enforcement

action 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. The EPA issued TVA an administrative order directing TVA to put new source controls on 14 of its coal-fired 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. The outcome of this litigation and the EPA proceedings is uncertain. It is not possible to predict with certainty what impact implementation of the EPA's order will have on TVA if TVA's challenge is unsuccessful. If the EPA substantially prevails, TVA could be required to incur capital costs in excess of \$3 billion by 2010 to 2012. Any additional controls that TVA could be required to install on units as a result of this matter, however, would also be sufficient to comply with reduction requirements that are anticipated under the other air quality programs discussed above. Thus, because of the other environmental program requirements, TVA would in any event probably incur a substantial portion of the costs that might result from the EPA's enforcement action, although the schedule for the installation of controls could be somewhat accelerated by the EPA 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.

The Bush administration is reviewing the energy implications of the EPA's new NSR interpretation and the legal merits of the EPA's enforcement cases. TVA has determined that if the EPA's new interpretation becomes law, TVA could lose about 11 percent of the energy capabilities of its coal-fired system within three years through permit limits on use of its units.

**HAZARDOUS SUBSTANCES.** The release and cleanup of hazardous substances are regulated under the Comprehensive Environmental Response, Compensation, and Liability Act. In a manner similar to many other industries and power systems, TVA has generated or used hazardous substances over the years. TVA is aware of hazardous-substance releases at four offsite areas for which it may have some liability. TVA's potential liabilities for its share of cleanup costs at these sites are uncertain but are not expected to have a significant impact on TVA's financial position or results of operations.

**PENDING LITIGATION.** The EPA 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 the EPA's order will have on TVA if TVA's challenge is unsuccessful. If the EPA substantially prevails, TVA could be required to incur capital costs in excess of \$3 billion by 2010 to 2012 in order to implement the EPA's order (*see note 9—Contingencies-Clean air developments*).

TVA is a party to various other 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 materially 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 of dismantling and decontaminating the facilities to meet NRC criteria for license

termination. Effective for 1998, TVA changed its method of accounting for nuclear decommissioning costs and related liabilities in order to comply with certain tentative conclusions reached by the FASB in its project for closure and removal of long-lived assets, as well as certain rate-setting actions.

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 the 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*. At September 30, 2001, the present value of the estimated future decommissioning cost of \$804 million was included in other liabilities, and the unamortized regulatory asset of \$439 million was included in deferred charges. The decommissioning cost estimates are based on prompt dismantlement and removal of a 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 a decommissioning trust fund to provide funding for the decommissioning of nuclear power plants. As of September 30, 2001, the decommissioning trust fund investments totaled \$600 million and

were invested in securities designed to achieve a return in line with overall equity market performance.

TVA is currently evaluating the nature and scope of its decommissioning policy as it relates to all electric generating plants. The evaluation will be used to determine the need for recognition of additional asset retirement obligations as described in the recently issued SFAS No. 143, *Accounting for Obligations Associated with Retirement of Long-Lived Assets*. SFAS No. 143 will be effective for TVA in 2003.

**COST-BASED REGULATION.** As a regulated entity, TVA is subject to the provisions of SFAS 71, *Accounting for the Effects of Certain Types of Regulation*. Accordingly, TVA records certain assets and liabilities resulting 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 \$439 million at September 30, 2001, along with approximately \$4.1 billion of deferred nuclear plant costs. 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

During 2001 TVA continued to conduct certain activities commonly referred to as "nonpower" programs, including managing navigable river channels, providing flood control, and overseeing certain recreation facilities. TVA's responsibilities include the general stewardship of land, water, and wildlife resources.

Historically, nonpower programs were primarily funded with federal appropriations. Certain nonpower program activities have also been funded with user fees and outside services revenues. 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.

In 1999 TVA received federal appropriations of approximately \$50 million, of which \$43 million was for essential stewardship activities and \$7 million was for the Land Between The Lakes National Recreation Area (LBL). Since that time, Congress has not provided any appropriations to TVA. Consequently, during 2001 and 2000, TVA paid \$71 million and \$72 million, respectively, for essential stewardship activities primarily

with power revenues; the remainder was 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. As part of the transfer, TVA assumed responsibility for certain transition costs associated with the transfer. As of September 30, 2001, TVA has paid \$7 million of transition expenses, with a remaining liability estimated to be approximately \$3 million at September 30, 2001. TVA retains responsibility for management of the remaining nonpower assets and settlement of nonpower obligations.

As of 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, 2001, the net completed plant balances for multipurpose dams and other plant were \$673 million and \$43 million, respectively. At September 30, 2000, the net completed plant balances for multipurpose dams and other plant were \$683 million and \$57 million, respectively.

*Report of***INDEPENDENT ACCOUNTANTS****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 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 at September 30, 2001 and 2000, 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, 2001, in conformity with accounting principles generally accepted in the United States of America. 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 of America 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 our opinion.

In accordance with *Government Auditing Standards*, we have also issued our report dated October 30, 2001 on our consideration of the Tennessee Valley Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws and regulations for the year ended September 30, 2001. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report in considering the results of our audit.

*PricewaterhouseCoopers LLP*

PricewaterhouseCoopers LLP  
Knoxville, Tennessee  
October 30, 2001

*Report of***MANAGEMENT**

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 auditing standards generally accepted in the United States of America and *Government Auditing Standards* issued by the Comptroller General of the United States. 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

## Board of Directors



**GLENN L. McCULLOUGH, JR.**

**Chairman**

Appointed to a six-year term as the 26th member of the TVA Board of Directors by President Clinton in November 1999 . . . designated Chairman by President Bush in July 2001 . . . board member of EPRI (the Electric Power Research Institute) and the Memphis Chamber of Commerce . . . elected mayor of Tupelo, Mississippi, in 1997 . . . has a long history of interest in economic development, stemming from his eight years of public service and 14 years in private business . . . was director of the Mississippi office of the Appalachian Regional Commission . . . serves on the boards of the Nuclear Energy Institute, the Economic Development Partnership of Alabama and the Mississippi Partnership for Economic Development . . . B.S. from Mississippi State University.



**SKILA HARRIS**

**Director**

Appointed by President Clinton to a nine-year term as the 25th member of the TVA Board of Directors in November 1999 . . . the first woman to hold the post of TVA Director . . . 15 years of public and private experience in the energy field . . . served in the U.S. Department of Energy during both the Clinton and Carter administrations . . . from 1993 to 1997, served as special assistant to Vice President Al Gore and as Tipper Gore's chief of staff . . . was vice president for development and compliance at Steiner-Leff Iron and Metal Company from 1989 to 1992 . . . was contract and project manager at the U.S. Synthetic Fuels Corporation . . . B.A. in political science from Western Kentucky University . . . M.A. in legislative affairs from George Washington University.

## The Executive Committee

**From left:**  
ELLEN ROBINSON  
JOSEPH R. BYNUM  
KATHRYN J. JACKSON  
IKE ZERINGUE  
D. LEANNE STRIBLEY  
MAUREEN DUNN  
TERRY BOSTON  
JOHN A. SCALICE  
GREGORY M. VINCENT  
KATIE RAWLS  
DAVID N. SMITH  
MARK MEDFORD  
RON LOVING  
AMY T. BURNS  
JOHN E. LONG, JR.



**Ike Zeringue****President and Chief Operating Officer**

More than 26 years of experience in the nuclear industry . . . directed the start-up and licensing of TVA's Watts Bar Nuclear Plant and the recovery and restart of Browns Ferry Nuclear Plant . . . directed the start-up, maintenance, and operation of Arizona Public Service Company's Palo Verde Unit 3 . . . in 1993, became TVA's Senior Vice President of Nuclear Operations . . . named Chief Nuclear Officer and Executive Vice President of TVA Nuclear in 1997 . . . appointed in 1998 to his current position, which entails oversight of TVA's power production, transmission, and resource-management programs . . . nuclear-engineering degree from North Carolina State University . . . graduate of the Advanced Management Program at Harvard Business School.

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

Came to TVA as Chief Financial Officer in 1995 . . . named Executive Vice President of Financial Services in 1996 . . . has led the refinancing of \$23 billion of debt through a variety of global and retail bond offerings since 1995 . . . previously co-founded Odyssey Financial, a corporate consulting firm, and served as its executive director . . . played a crucial role in the reorganization of LTV Corporation, enabling it to emerge successfully from one of the largest and most complex bankruptcies in U.S. history . . . was vice president of corporate development at Cyclops Corporation for 10 years . . . 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 29 years of experience with TVA . . . named to his current position in 1999 . . . oversees the 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 973 substations and delivery points . . . also provides for transmission and related services to neighboring systems . . . 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.

**Amy T. Burns****Vice President, Bulk Power Trading**

More than 26 years of experience at TVA . . . named to her current position in November 2000 . . . responsible for TVA's overall trading of bulk power in the wholesale market . . . served as Manager of Fuel Supply Analysis in the Fossil Power Group, with the responsibility of planning, analysis, and acquisition for TVA's \$1.5 billion fossil-fuel program . . . joined TVA in 1975 as an accountant . . . licensed CPA in the state of Tennessee . . . B.S. in accounting from Samford University.

**Joseph R. Bynum****Executive Vice President, Fossil Power Group**

Worked in TVA engineering and plant-operations positions from 1972 to 1982 . . . was plant manager of Arizona Public Service Company's Palo Verde Nuclear Generating Station from 1982 to 1987 . . . in 1987, named to a senior position in TVA's Nuclear Power Operations . . . appointed Vice President of Nuclear Operations in 1989 . . . served as Vice President of several TVA Fossil and Hydro organizations from 1993 to 1998, including Maintenance and Testing Services, Fuel Supply and Engineering, and Fossil Operations . . . named to his current position in 1998 . . . B.S. in electrical engineering and M.S. in nuclear engineering from Georgia Tech.

**Maureen Dunn****Executive Vice President and General Counsel**

Named TVA's General Counsel in January 2001 . . . advises the Board on legal matters and serves as Secretary to the Corporation . . . oversees and coordinates all legal work for TVA . . . joined TVA in 1978 as an attorney . . . assumed the position of Assistant General Counsel in 1986 . . . B.S. in political science from LeMoyné College in Syracuse, New York . . . law degree from Catholic University in Washington, D.C.

**Kathryn J. Jackson****Executive Vice President, River System Operations and Environment, and Environmental Executive**

Joined TVA in 1991 . . . appointed to her current position in 1999 . . . served as EVP, Resource Group, 1996-99 . . . oversees river operations, resource stewardship, energy research, and technology applications . . . responsible for TVA's environmental policy, strategy, and R&D . . . board chair, Joint Institution for Energy and Environment . . . presidential appointee, National Recreation Lake System Study Commission . . . Distinguished Lecturer at Princeton, 1997 . . . adviser, Carnegie Mellon College of Engineering Advisory Council . . . Vanderbilt University Advisory Board . . . B.S. in physics from Grove City College . . . M.S. in industrial-engineering management from the University of Pittsburgh . . . M.S. and Ph.D. in engineering and public policy from Carnegie Mellon . . . postdoctoral fellowship, National Academy of Engineering.

**John E. Long, Jr.****Executive Vice President, Human Resources**

Named to his current position in 2000 . . . is also TVA's Designated Safety and Health Official . . . since 1992, has served as a management appointee to the TVA Retirement System Board . . . joined TVA in 1980 as a Personnel Officer in the Engineering Division . . . B.S. in business administration and M.B.A. from the University of Tennessee.

**Ron Loving****Senior Vice President, Performance Initiatives**

More than 29 years of experience at TVA . . . oversees the alignment and integration of TVA's Performance Improvement initiatives . . . chairs the agency's project-approval process . . . appointed to his current position in December 2000 . . . served for three years as Vice President, Synterprise Group, an entrepreneurial business unit that provided engineering and business services to other TVA organizations . . . Vice President, Government Relations in TVA's Washington office, 1994-96 . . . B.S. in electrical engineering from Southern University . . . M.B.A. from the University of Memphis.

**Mark O. Medford****Executive Vice President, Customer Service and Marketing**

Joined TVA in 1989 as Vice President and Nuclear Technical Director . . . served in several of the agency's executive posts before being named to his current position in 1996 . . . responsible for relations between TVA and its customers . . . directs staffs that manage customer accounts, product development and pricing, marketing, and economic development . . . 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 the U.S. Navy from 1971 to 1975 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 . . . Ph.D. in executive management from Claremont Graduate School.

**Katie Rawls****Vice President, Economic Development**

Appointed to her current position in 1999 . . . responsible for developing and implementing regional economic development strategies throughout the seven states served by TVA . . . joined TVA in Economic Development and Customer Service in 1994 . . . previously director of marketing at Deloitte & Touche in Atlanta . . . B.A. in English from Vanderbilt . . . M.A. in special education from Peabody College . . . M.B.A. in marketing from Georgia State University.

**Ellen Robinson****Executive Vice President, Communications and Government Relations**

Named to her current position in June 2001 . . . served as senior vice president of communications and government affairs at CNH Global NV/Case Corporation in Racine, Wisconsin, and before that as vice president of communications and government affairs at Case . . . joined Case from Bursan-Marsteller in New York, where she was a vice president and head of the business-to-business marketing unit . . . B.A. in journalism from the University of New Mexico . . . M.A. in public administration from the American University in Washington, D.C.

**John A. Scalice****Chief Nuclear Officer and Executive Vice President,  
TVA Nuclear**

Came to TVA in 1989 as Plant Manager at Watts Bar Nuclear Plant . . . served as Browns Ferry Plant Manager . . . became Site Vice President at Watts Bar in 1993, and played a key role in the successful licensing, start-up, and operation of that nuclear unit . . . served as Senior Vice President of Nuclear Operations in 1997 . . . named to his current position in 1998 . . . responsible for all management of TVA's three operating nuclear plants . . . more than 29 years of experience in the nuclear industry, in the 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 the Polytechnical Institute of New York.

**D. LeAnne Stribley****Executive Vice President, Administration**

Appointed to her current position in 2000 . . . joined TVA as Vice President of Finance in 1995 . . . assumed additional responsibilities as Controller in 1997 . . . promoted to the position of Senior Vice President of Finance and Controller in July 2000 . . . before joining TVA, was vice president of finance and chief financial officer at Travel Resources Management Group Inc. . . . was director of corporate finance at Ohio-based LTV Corporation from 1987 to 1994 . . . between 1981 and 1987, worked as assistant treasurer for the Western Company of North America, an offshore-drilling and oil-services corporation . . . native of Fort Worth, Texas . . . CPA . . . B.A. in accounting from Texas Wesleyan University.

**Gregory M. Vincent****Senior Vice President, Power Resources and Operations Planning**

Came to TVA in 1992 as Vice President of Fossil Fuels . . . previously served as director of fuel supply at Niagara Mohawk Power Corporation . . . more than 31 years of experience in engineering and management . . . named to his current position in early 1999 after serving as Vice President of Fuel Supply and Engineering and Vice President of Hydro Operations . . . evaluates TVA's transmission and power-supply options, including the construction of new power plants, the development of "green" power, and the promotion of demand-side conservation . . . assesses the effects 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 AND FINANCIAL SUMMARIES

For the years ended September 30	2 0 0 1	2 0 0 0	1 9 9 9	1 9 9 8	1 9 9 7	1 9 9 6	1 9 9 5	1 9 9 4	1 9 9 3	1 9 9 2	1 9 9 1
<b>Sales (millions of kilowatt-hours)<sup>a</sup></b>											
Municipalities and cooperatives	129,760	125,991	122,880	123,330	114,771	117,035	110,245	108,073	105,566	98,505	97,299
Industries directly served	23,306	22,204	22,885	18,514	17,359	16,599	16,684	15,792	16,196	16,576	17,422
Federal agencies and other	8,355	11,376	10,190	21,293	27,198	19,964	12,356	13,599	10,952	8,970	5,720
Total sales	161,421	159,571	155,955	163,137	159,328	153,598	139,285	137,464	132,714	124,051	120,441
<b>Operating revenues (millions of dollars)<sup>a</sup></b>											
Electric											
Municipalities and cooperatives	\$5,908	\$5,676	\$5,510	\$5,554	\$4,811	\$4,980	\$4,654	\$ 4,582	\$4,479	\$4,266	\$4,272
Industries directly served	659	626	642	523	464	452	460	452	472	472	531
Federal agencies and other	330	361	357	556	561	430	277	441	414	342	286
Other	102	99	86	96	98	89	82	71	71	71	68
Total revenues	\$6,999	\$6,762	\$6,595	\$6,729	\$5,934	\$5,951	\$5,473	\$5,546	\$5,436	\$5,151	\$5,157
Electric revenue per kilowatt-hour (cents) <sup>b</sup>	4.27	4.18	4.17	4.07	3.66	3.82	3.87	3.87	3.92	3.97	4.09
<b>Winter net dependable generating capacity (megawatts)</b>											
Hydro <sup>c</sup>	5,677	5,544	5,492	5,491	5,384	5,298	5,225	5,242	4,885 <sup>d</sup>	4,885 <sup>d</sup>	4,885 <sup>d</sup>
Fossil	15,050	15,042	15,049	15,003	15,014	15,012	15,032	15,032	15,088	15,088	15,249
Nuclear units in service	5,715	5,729	5,729	5,620	5,625	5,545	3,342	3,342	3,365	3,361	3,361
Combustion turbine	3,923	3,154	2,232	2,384	2,394	2,268	2,232	2,264	2,284	2,284	2,284
Total capacity	30,365	29,469	28,502	28,498	28,417	28,123	25,831	25,880	25,622	25,618	25,779
System peak load (megawatts)—summer	27,368	29,344	28,295	27,253	26,661	25,376	25,496	23,398	23,878	21,980	22,081
System peak load (megawatts)—winter	27,163	25,940	26,388	23,204	26,670	25,995	24,676	24,723	21,666	21,974	20,752
Percent gross generation by fuel source											
Fossil	64%	63%	63%	62%	61%	65%	71%	72%	77%	69%	68%
Hydro	6%	6%	7%	10%	11%	11%	12%	14%	13%	14%	16%
Nuclear	29%	31%	30%	28%	28%	24%	17%	14%	10%	17%	16%
Combustion turbine	1%	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
<b>Fuel cost per kilowatt-hour (cents)</b>											
Fossil	1.32	1.27	1.28	1.25	1.23	1.23	1.26	1.34	1.27	1.33	1.35
Combustion Turbine	6.07	6.22	3.94	4.01	5.22	4.54	3.61	5.45	5.09	8.26	9.52
Nuclear <sup>e</sup>	.44	.49	.51	.71	.58	.56	.61	1.10	1.09	1.10	1.02
Aggregate fuel cost per kilowatt-hour net thermal generation	1.08	1.05	1.05	1.10	1.04	1.06	1.14	1.31	1.25	1.29	1.29
<b>Fuel data</b>											
Net thermal generation (millions of kilowatt-hours)	146,806	143,224	137,169	139,727	135,735	131,898	118,097	110,643	109,968	105,577	98,153
Billion Btu	1,505,504	1,470,452	1,403,110	1,426,151	1,381,837	1,338,157	1,197,295	1,120,868	1,105,395	1,069,725	998,934
Fuel expense (millions of dollars)	1,588	1,504	1,434	1,538	1,406	1,395	1,348	1,450	1,375	1,360	1,263
Cost per million Btu (cents)	105.47	102.29	102.21	107.81	101.73	104.22	112.61	129.40	124.42	127.16	126.48
Net heat rate, fossil only	10,255	10,267	10,229	10,207	10,180	10,145	10,138	10,131	10,052	10,132	10,177

<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 \$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.

## INVESTOR INFORMATION

Investors understand and have confidence in TVA's business...

- **Well managed electric utility providing low-cost, reliable power to more than 8.3 million consumers**
- **Required by the TVA Act to set rates sufficient to pay debt service on outstanding bonds**
- **Holders of Power Bonds given first pledge of payment from net power proceeds**
- **Board appointed by the President and confirmed by the Senate**
- **Strong customer base**

TVA offers investment opportunities that provide exceptional value for investors...

- **State and local tax advantages – both principal and interest on TVA securities are generally exempt from state and local income taxes. TVA securities are not exempt from estate, inheritance, and gift taxes or from federal income tax**
- **Survivor's option in some offerings**

### Form and Denomination

Security	Book-Entry Form	Denomination*	Payments
electronotes <sup>sm</sup>	The Depository Trust Company	\$1,000	Varies with offering
PARRS (2 issues)	The Depository Trust Company	\$25	Quarterly
QUINTS (Quarterly Income Tiered Securities–5 issues)	Federal Reserve Bank System	\$1,000	Quarterly
2001 Series B Global	The Depository Trust Company	£1,000	Annual
1998 Series A Estate Feature	Federal Reserve Bank System	\$1,000	Quarterly
1998 Series H Global	The Depository Trust Company	£1,000	Semi-annual
1996 Series C Global	The Depository Trust Company	DM1,000	Annual
Other Power Bonds (20 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 888-882-4975.

**TVA securities can be purchased through a broker, bank, or other financial institution.**

### Financing Goal

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

### Key Strengths of TVA Securities

TVA's rated bonds receive the highest rating from Moody's and Standard & Poor's (Aaa/AAA). TVA offers several bondholder protections including (1) the requirement that holders of Power Bonds are given first pledge of payment from net power proceeds, and (2) the requirement that TVA charge electricity rates sufficient to ensure, among other things, the full payment of annual debt service. TVA is a wholly owned corporate agency of the U.S. Government.

In 1959, Congress authorized TVA to sell bonds in public markets to finance its own power operations. This allowed TVA's power system to become self-financing and fund its internal cash and capital requirements with operating cash flow and debt. TVA securities may be issued only to provide capital for TVA's power program or to refund existing indebtedness. TVA securities are backed solely by the net power proceeds of the TVA power system and are neither obligations of nor guaranteed by the U.S. Government.

### Earnings Objective

TVA is a corporation wholly owned by the U. S. Government that 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 non-profit corporation, so it does not accumulate a large amount of retained earnings. TVA is not authorized to issue equity securities.

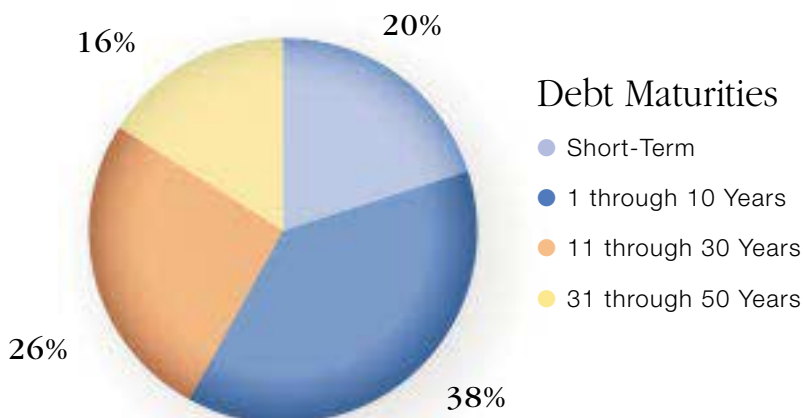
### Securities Listing

All TVA's bonds are publicly held. Two debt securities, the Putable Automatic Rate Reset Securities (PARRS), are listed and traded on the New York Stock Exchange under the symbols TVC and TVE.

TVA issues a variety of debt securities in U.S. dollars and other currencies targeted to institutional and individual investors around the world. TVA has investors in all 50 states and in 35 countries.

## Diversification of TVA's Debt Portfolio

As of September 30, 2001



## Investment Opportunities

TVA designs and markets debt in a variety of innovative structures, including PARRS, electronotes<sup>sm</sup>, discount notes, and an assortment of other debt securities. As of September 30, 2001, TVA had 40 long-term public debt issues outstanding, totaling \$22.4 billion.

**electronotes<sup>sm</sup>** is a retail bond program that offers a series of bonds with a variety of structures targeted to individual investors.

### Benefits include:

- Competitive interest rates
- Bi-monthly offerings (generally)
- Minimum \$1,000 investment
- Maturities from 1 to 30 years
- A variety of interest payments
- A survivor's option in some issues

To learn more about TVA electronotes<sup>sm</sup> go to [www.tvaelectronotes.com](http://www.tvaelectronotes.com).

## Forward-looking 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

Ellen Robinson  
Executive Vice President,  
Communications and Government Relations  
Tennessee Valley Authority  
400 West Summit Hill Drive  
Knoxville, TN 37902

Phone: 865-632-6263  
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E-mail: [tvainfo@tva.com](mailto:tvainfo@tva.com)  
TVA home page: [www.tva.com](http://www.tva.com)

## Investor Inquiries

### Mailing Address

Sylvia H. (Sissy) Caldwell  
Vice President, Investor Relations  
Tennessee Valley Authority  
400 West Summit Hill Drive  
Knoxville, Tennessee 37902

### Web Site and E-mail Address

[www.tva.com/finance](http://www.tva.com/finance)  
[investor@tva.com](mailto:investor@tva.com)

### Phone/Fax Numbers

888-882-4975 (toll-free in the U.S.)  
888-882-4967 (toll-free outside the U.S.)  
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