

## 2003 INFORMATION STATEMENT

### TENNESSEE VALLEY AUTHORITY

#### A Wholly Owned Corporate Agency and Instrumentality of the United States of America

The Tennessee Valley Authority ("TVA" or the "Corporation") presents this Information Statement (this "Statement") for the information of stakeholders and potential purchasers of (1) its Power Bonds ("Power Bonds"), (2) its Discount Notes ("Discount Notes"), and (3) any other evidences of indebtedness ("Other Indebtedness") it may issue pursuant to the Tennessee Valley Authority Act of 1933, as amended, 16 U.S.C. §§831-831ee (2000) (the "Act" or the "TVA Act"). TVA issues Power Bonds pursuant to the Act and the Basic Tennessee Valley Authority Power Bond Resolution adopted by the Board of Directors of TVA (the "Board" or the "TVA Board of Directors") on October 6, 1960, as amended on September 28, 1976, October 17, 1989, and March 25, 1992 (the "Basic Resolution"). TVA issues Discount Notes and Other Indebtedness pursuant to the Act and their authorizing resolutions. Power Bonds, Discount Notes, and Other Indebtedness are collectively referred to in this Statement as "Evidences of Indebtedness."

TVA may offer Power Bonds and Other Indebtedness from time to time. TVA may offer Discount Notes for sale on a continuous basis by direct placement or through selected investment dealers, dealer banks, underwriters, or underwriting syndicates. For each offering of Power Bonds, except for Power Bonds offered under a program on a continuous basis, TVA will prepare an offering circular describing the specific terms and conditions of the Power Bonds offered. For Power Bonds offered under a program on a continuous basis, TVA will prepare a single offering circular that describes the general terms and conditions common to all securities issued under the program. TVA will also prepare a single offering circular describing the general terms and conditions common to all Discount Notes offerings. For offerings of Other Indebtedness, TVA will either prepare an offering circular describing the specific terms and conditions of the particular offering or a more general offering circular, as TVA deems appropriate. For any offerings made through a program under which Other Indebtedness, Discount Notes, or Power Bonds are offered on a continuous basis, the offering circular will describe how, if at all, the offering circular will be supplemented in order to reflect, among other things, the specific terms and conditions of the securities being offered. You should read this Statement, as it may be supplemented or amended, together with the appropriate offering circular, as it may be supplemented or amended, for each offering.

For each offering of an Evidence of Indebtedness, you should rely only on the information contained in (1) this Statement, (2) the relevant offering circular, and (3) any supplements or amendments to these documents approved by TVA. TVA has not authorized anyone to provide you with any information that is different from that found in this Statement and each relevant offering circular and any supplements or amendments to such documents. This Statement does not constitute an offer to sell or a solicitation of an offer to buy any Evidences of Indebtedness in any jurisdiction to any person to whom it is unlawful to make an offer or solicitation.

This Statement is accurate only as of its date. TVA may supplement, amend, or replace this Statement from time to time, generally no more often than annually, to reflect its annual financial results or otherwise as TVA deems appropriate. However, TVA assumes no duty to update this Statement. You should rely on the most recent supplements or amendments to or replacement of this Statement over different information in this Statement.

Any statements in this Statement involving matters of opinion, regardless of whether expressly so identified, are opinions only and not factual representations. This Statement is not a contract with the purchaser of any Power Bonds, Discount Notes, or Other Indebtedness.

You may obtain additional copies of this Statement by writing to Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1401, Attention: Investor Relations or by calling 1-888-882-4975.

***Evidences of Indebtedness are not obligations of the United States of America, and the United States of America does not guarantee the payment of the principal of or interest on any Evidences of Indebtedness. TVA is not required to register Evidences of Indebtedness under the Securities Act of 1933 or to make periodic reports to the Securities and Exchange Commission under the Securities Exchange Act of 1934.***

**The date of this Information Statement is February 4, 2004.**

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## PART I

### BUSINESS

#### General

##### *Forward-Looking Information*

This Statement 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.

In certain cases, forward-looking statements can be identified by the use of words such as “may,” “will,” “should,” “expect,” “anticipate,” “believe,” “intend,” “project,” “plan,” “predict,” “assume,” “estimate,” “objective,” “possible,” “potential,” or other similar expressions.

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; strategic objectives; anticipated availability of nuclear waste storage facilities; projections of nuclear decommissioning costs; and impacts of pending litigation and various administrative orders which have been or may be issued.

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 the restructuring of the electric power industry and various environmental matters; increased competition among electric utilities; legal and administrative proceedings affecting TVA; the financial and economic environment; performance of TVA’s generation and transmission assets; fuel prices; demand for electricity; changes in technology; changes in the price of power; loss of any significant customers or suppliers; creditworthiness of counterparties; weather conditions and other natural phenomena; changes in accounting standards; and unforeseeable events. New factors emerge from time to time, and it is not possible for management to predict all such factors or to assess the extent to which any factor or combination of factors may impact TVA’s business or cause results to differ materially from those contained in any forward-looking statement.

TVA undertakes no obligation to update any forward-looking statement to reflect developments that occur after the statement is made.

##### *Fiscal Year*

Unless otherwise indicated, years (2003, 2002, etc.) in this Statement refer to TVA’s fiscal years ended September 30.

##### *Notes*

References to “notes” are to the Notes to Financial Statements contained in Part II.

#### **The Corporation**

TVA is a corporate agency and instrumentality of the United States government created in 1933 by the Act and charged with providing navigation, flood control, and agricultural and industrial development, while providing electric power to the Tennessee Valley region. TVA has developed and operates one of the largest electric power systems in the United States, having produced over 151 billion kilowatt-hours (“kWh”) of electricity in 2003. TVA is wholly owned by the United States government and is administered by a board of three persons appointed by the President and confirmed by the Senate. Appointments are for nine-year staggered terms, with one term expiring each three-year interval.

Historically, the programs at TVA have consisted of power and nonpower programs. Revenues and expenses of the power program are segregated from other revenues and expenses. Substantially all of TVA’s revenues and assets are attributable to its power program. For a discussion of the funding of TVA’s nonpower programs, see note 10 in Part II.

The Act requires the power program to be self-supporting from power system revenues and capital TVA raised through its power program financings. The Act authorizes TVA to issue Evidences of Indebtedness in an amount not exceeding \$30 billion outstanding at any one time, the proceeds of which may be used only for the power program. See *“The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness”* in Part I.

Under certain circumstances, the Act permits TVA to borrow up to \$150 million for a period of one year or less from the Treasury. The Act requires TVA to obtain the approval of the Secretary of the Treasury of the issue date and maximum interest rate for any issuance of an Evidence of Indebtedness with a term of one year or longer. The Office of Management and Budget (“OMB”) includes TVA’s finances as part of the budget of the United States.

The Act requires TVA to annually file a financial statement and complete report as to its business with the President and Congress. The Government Corporation Control Act authorizes the Comptroller General of the United States to periodically audit the transactions of TVA.

## **Regulation of TVA**

### *Congress*

Congress has the authority to govern TVA’s activities through legislation. In order to allow TVA more freedom to operate than a traditional agency, however, Congress, in passing the TVA Act in 1933, exempted TVA from many general federal laws that govern other agencies, such as laws related to the hiring of employees, contracts for supplies and services, and the acquisition and disposal of land. Since 1933, Congress has continued to exempt TVA from some federal laws applicable to other agencies in recognition of TVA’s unique status. Other federal laws enacted since the creation of TVA have been made applicable to TVA, including those related to the protection of the environment and cultural resources and civil rights laws.

### *Federal Energy Regulatory Commission*

TVA is not a “public utility” as defined in the Federal Power Act (“FPA”). Therefore, TVA is not subject to the plenary jurisdiction of the Federal Energy Regulatory Commission (“FERC”) under the FPA. TVA is, however, an “electric utility” as defined in the FPA and thus is subject to certain aspects of FERC’s jurisdiction under Sections 210 to 212 of the FPA. TVA has chosen to implement various FERC orders and regulations on a voluntary basis to the extent consistent with TVA’s obligations under the TVA Act.

### *States*

The Supremacy Clause of the United States Constitution prohibits states, without congressional consent, from regulating the manner in which the federal government conducts its activities. As a federal agency, TVA is exempt from regulation, control, and taxation by states except in certain areas such as air and water quality where Congress has given the states limited powers to regulate federal activities.

### *Other Governmental Entities*

TVA’s activities and records are also subject to review by various governmental entities including TVA’s Office of Inspector General, the General Accounting Office, the Congressional Budget Office, and the OMB, as well as congressional committees.

## **The Area Supplied by the Tennessee Valley Authority**

TVA supplies power in most of Tennessee, northern Alabama, northeastern Mississippi and southwestern Kentucky, and in small portions of Georgia, North Carolina, and Virginia. TVA serves a population of more than eight million people. Subject to certain minor exceptions, TVA may not without specific authorization by act of Congress enter into contracts which would have the effect of making it or the distributors of its power a source of power supply outside the area for which TVA or the distributors were the primary source of power supply on July 1, 1957.

## **Rates and Customers**

TVA is primarily a wholesaler of power. Its customers consist of three major groups: (1) distributors, consisting of municipalities and cooperatives; (2) industries that have large or unusual loads; and (3) federal agencies. Additionally, TVA has entered into exchange power arrangements with most of the electric systems that surround it.

The Act gives the Board sole responsibility for establishing the rates TVA charges for power and authorizes the Board to include in power contracts terms and conditions that it judges necessary or desirable for carrying out the purposes of the Act. The Act requires TVA to charge rates for power which, among other things, will produce gross revenues sufficient to provide funds for (1) operation, maintenance, and administration of its power system; (2) payments to states and counties in lieu of taxes; (3) debt service on outstanding Evidences of Indebtedness; and (4) annual payments to the Treasury in repayment of and as a return on the government's appropriation investment in TVA power facilities. See "*Certain Provisions of the Tennessee Valley Authority Act and Related Laws*" and "*The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness*" — "Rate Covenant" in Part I. Rates set by the Board are not subject to review or approval by any state or federal regulatory body. In a future restructured electric power industry (discussed in "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" — "TVA and Competition" in Part II), it is possible, however, that the ability of the Board to set TVA's rates as specified in the TVA Act could be adversely affected by legislative changes or by competitive pressures.

A summary of power program operating revenues by customer type for each of the last three years ended September 30 is shown in "*Selected Financial Data*" in Part II.

#### *Municipal and Cooperative Distributors*

Sales to municipal and cooperative distributors accounted for approximately 86 percent of TVA's total revenues in 2003. TVA has long-term wholesale power contracts with 158 municipal and cooperative distributors. All of these contracts require distributors to purchase substantially all of their electric power and energy requirements from TVA.

All distributors purchase power under one of three basic arrangements. Fifty-two distributors purchase power under contracts that require ten years' notice to terminate and further provide that on each anniversary beginning on the tenth anniversary, one additional year is automatically added to the term. Five distributors have contracts that require 15 years' notice to terminate the contract. On each anniversary of these contracts, beginning on the fifth anniversary, one additional year is automatically added to the term. TVA has also offered distributors the option of moving from ten-year or 15-year termination notice periods to a five-year termination notice period. One hundred and one distributors, including two of the largest, have entered into contractual arrangements of this type. Sales to these two distributors generated approximately 13 percent of TVA's total operating revenues in 2003. TVA has agreed that all of these term arrangements are deemed to provide for adequate recovery by TVA of any investment in generation and transmission facilities for service to the distributors. See "*Business*" — "Rates and Customers" — "Termination Notices" in Part I.

TVA's wholesale power contracts contain standard provisions specifying the wholesale rate and terms and conditions under which power is sold to distributors. Under these contracts, TVA, on a quarterly basis, may determine and make adjustments in the wholesale rate schedules necessary to enable TVA to meet all the requirements of the Act and the financial covenants and provisions of its bond resolutions. The contracts provide for agreement between the parties on general or major changes in the wholesale schedules. If, however, agreement is not reached, the contracts permit TVA to make changes in these schedules to carry out the objectives of the Act, to meet financial requirements and covenants, and to comply with the provisions of its bond resolutions.

Most of the power contracts between TVA and the distributors of TVA power specify the resale rates that distributors charge the ultimate power customers. These rates are revised from time to time to reflect changes in costs, including changes in the wholesale cost of power. They are designed to promote the Act's objective of providing an adequate supply of power at the lowest feasible rates.

A number of TVA distributors, including some with the largest loads, have expressed interest in further revising their wholesale power contracts to allow them more options with respect to contract term and other matters, such as purchasing a portion of their power requirements from suppliers other than TVA. TVA is working with distributors and the Tennessee Valley Public Power Association ("TVPPA"), an association which includes all distributors of TVA power, to develop future wholesale pricing options and new long-term contract options that would be financially and commercially viable under more open wholesale markets.

TVA has also entered into agreements with two distributors that significantly reduce TVA's involvement with their resale rates and which provide for TVA's termination notice period to generally be ten years even if the distributor has chosen the five-year option described above.

During October of 2002, TVA introduced the Discounted Energy Units (“DEU”) program as another way of providing value to its customers. Annually for program fiscal years 2003 to 2007, TVA customers could purchase DEUs in \$1 million increments which entitled them to a 0.025 dollar/kilowatt-hour discount on a specified quantity of firm load over a period of years, (five, ten, 15, or 20) for each kilowatt-hour in the prepaid block. The remainder of the price of the kilowatt-hours delivered is due upon billing. This program allows customers to use the DEUs to reduce their overall costs and provide a higher return for available cash.

As of September 30, 2003, TVA had entered into sales agreements of 47.25 DEUs totaling \$47.25 million for the 2003 program and sales agreements for 3.5 DEUs totaling \$3.5 million for the 2004 program. TVA is accounting for the prepaid power as unearned revenue.

Upon termination of the power contract, the DEU agreement will terminate unless TVA and the distributor agree to other supply arrangements.

For a discussion of the effects of competition in the restructured electric power market, see “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” — “*TVA and Competition*” in Part II.

#### *Other Sources of Revenues*

Revenues from industries and federal agencies directly served and from exchange power arrangements with other power systems and other revenue accounted for approximately 14 percent of TVA’s total operating revenues in 2003. Contracts with industries directly served by TVA are normally for ten-year terms. These contracts are subject to termination by TVA or the customer upon a minimum notice period that varies according to the customer’s contract demand and the period of time service has been provided to the location where it is to be terminated. TVA establishes the rates it charges to industrial customers it directly serves. These rates normally are the same as those charged by the distributors of TVA power to large customers (those with demand greater than 25,000 kilowatts).

TVA generally sells power to federal agencies under the same contract terms and rates as directly-served industries. Contracts with federal agencies are normally for ten-year terms and are subject to termination by TVA or the federal agency upon a minimum notice period that varies according to the customer’s contract demand and period of time service has been provided to the location where it is to be terminated.

TVA also has exchange power arrangements with 12 neighboring power systems. As part of the TVA self-financing legislation enacted by Congress in 1959, TVA was restricted to selling power outside of the TVA service area to what was then 14 power generating companies. Due to a number of mergers and acquisitions over the years, there are now 12 of these grandfathered organizations remaining. The agreements are open-ended but do have termination provisions.

#### *Termination Notices*

In 2003, TVA received notices from four distributors of TVA power to terminate their power contracts. The notices from Meriwether Lewis Electric Cooperative and Bowling Green Municipal Utilities terminate their power contracts with TVA in October 2007. The notice from Warren Rural Electrical Cooperative Corporation terminates its power contract with TVA in April 2008, and the notice from Duck River EMC terminates its power contract with TVA in August 2008. Combined sales to these distributors amounted to \$220 million, or three percent, of TVA’s total electricity sales in 2003 and \$212 million, or three percent, of TVA’s total electricity sales, in 2002.

In November 2003, TVA also received notice from Monticello Electric Plant Board (“Monticello”) that terminates its power contract with TVA in November 2008. In 2003, sales to Monticello generated less than 0.1 percent of TVA’s total electricity sales. In December 2003, TVA received notice from Glasgow Electric Plant Board (“Glasgow”) that terminates its power contract with TVA in December 2008. In 2003, sales to Glasgow generated approximately 0.2 percent of TVA’s total electricity sales.

#### *USEC Contract*

In January 2004, the United States Enrichment Corporation (“USEC”) announced it will begin constructing its new commercial centrifuge facility in Piketon, Ohio. Once this new facility is opened, it is unclear how much energy USEC will need to acquire from TVA for its Paducah, Kentucky facility (“Paducah Facility”). Under the current contract with TVA, USEC is required to purchase a fixed amount of energy for its Paducah Facility through May 2006. In 2003, sales to USEC for its Paducah Facility generated approximately 3.5 percent of TVA’s total operating revenues.

## Power and Energy Requirements

TVA prepares annual forecasts of future power and energy requirements as part of its planning and budgeting process. TVA's forecast procedure involves producing a range of load forecasts for the explicit purpose of bounding the range of uncertainty associated with load growth. TVA produces the load forecasts probabilistically. TVA believes that there is a 90 percent probability that the actual load will be less than the high load forecast, a 50 percent probability that the actual load will be less than medium load forecast, and a ten percent probability that the actual load will be less than the low load forecast. TVA's current load forecast through 2005 reflects an average annual energy growth rate of 2.5 percent, 2.0 percent, and 1.5 percent for the high, medium, and low load forecasts, respectively. Numerous factors, such as weather conditions and the health of the regional economy, could cause actual results to differ materially from TVA's forecasts.

## Fuel

Management believes the sources and availability of fuel materials essential to its business should be adequate for the foreseeable future.

### *Fossil*

Coal consumption during 2003 was 40.6 million tons. Coal is purchased under contracts ranging from a single delivery to deliveries over several years. TVA coal inventory targets vary from plant to plant based upon a probabilistic inventory model. As of September 30, 2003, TVA had 36 days' system-wide coal supply in inventory at full burn. Inventory levels were higher at the end of 2003 due to delivery schedules which were set before the extended outage at a fossil plant during 2003. Fossil fuel inventory at September 30, 2003 and 2002 was \$219 million and \$173 million, respectively, of which \$180 million and \$145 million, respectively, was coal.

TVA has in place term coal contracts which supplied 83 percent of TVA's total coal requirements for 2003. The remaining 17 percent was purchased in the spot coal market under contracts with terms of one year or less. Thirty-nine percent of TVA's coal supply comes from western states; the remainder comes from Illinois, Kentucky, Pennsylvania, Tennessee, Virginia, and West Virginia. Thirty-seven percent of TVA's coal supply was delivered by train, 19 percent was delivered by barge, and 35 percent was delivered by barge in combination with trains. The remainder was delivered by truck.

During 2003, TVA purchased substantially all of its natural gas requirements under contracts with maturities of one year or less. TVA purchases substantially all of its natural gas to operate combustion turbine peaking units. These combustion turbine units, which can also operate on distillate fuel, produced less than one percent of the electricity that TVA generated during 2003.

### *Nuclear*

TVA owns all nuclear fuel held for its nuclear units. The net book value of this fuel was \$379 million as of September 30, 2003. TVA will fill future uranium requirements by a combination of term and spot purchase contracts while maintaining diversity of supply source. TVA currently has approximately 100 percent of its forward five-year (2004 to 2008) uranium requirements either in inventory or under contract for its boiling water reactor units at Browns Ferry and has 100 percent of its forward three-year (2004 to 2006) uranium requirements under contract for its pressurized water reactor ("PWR") units at Sequoyah and Watts Bar. For 2007 and 2008, TVA's PWR uranium supplier has an option to provide natural uranium for the three PWR units.

## PROPERTIES

The Tennessee River system provides multiple benefits for people of the Tennessee Valley. TVA manages the use of resources among its multiple river-system responsibilities: power generation, flood control, navigation, environmental stewardship, shoreline use, and water supply for power plant operations, consumer use, recreation, and industry.

TVA's power system is one of the largest in the United States in capacity and in energy production. Its size permitted the construction of large facilities which resulted in lower unit costs. Most of TVA's dams were completed years ago when construction costs were far below present-day levels. In accordance with the Act, all real estate

acquired by TVA is acquired in the name of the United States. See “*Certain Provisions of the Tennessee Valley Authority Act and Related Laws*” in Part I.

**Generating Resources**

TVA’s power generating facilities at September 30, 2003, included 29 conventional hydroelectric plants, 11 coal-fired plants, three nuclear plants, one pumped storage hydroelectric plant, six combustion turbine plants, one wind energy site, and 15 solar photovoltaic sites. Energy is delivered to TVA customers over a transmission system which interconnects with neighboring power systems at numerous points.

The following table summarizes TVA’s net generation in millions of kilowatt-hours by generating source for the years indicated:

**GENERATION BY FUEL SOURCE  
(millions of kWh)**

	<u>2003</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>
Hydroelectric .....	16,103	10,205	9,508	8,769	11,064
Coal Fired .....	90,975	94,930	100,118	95,271	91,630
Nuclear .....	43,167	45,179	45,615	46,921	44,514
Combustion Turbine .....	817	1,190	1,073	1,032	1,026
Other .....	<u>15</u>	<u>18</u>	<u>5</u>	<u>—</u>	<u>—</u>
	<u>151,077</u>	<u>151,522</u>	<u>156,319</u>	<u>151,993</u>	<u>148,234</u>

Hydro power plays a vital role in the TVA power system because it is economical and reliable, and it can be brought online quickly when the demand for electricity is high or when energy is needed due to system problems or lost generation. TVA maintains 29 conventional hydroelectric dams and one pumped storage plant for the production of electricity. Nine of these hydroelectric dams are on the main channel of the Tennessee River, and 20 are on tributary rivers. The hydroelectric system typically generates between seven and 11 percent of TVA’s electricity supply each year.

TVA’s fossil plants include coal-fired plants and combustion turbines that are fueled by natural gas and fuel oil. The 59 units at TVA’s 11 coal-fired plants provide nearly two-thirds of the power produced by TVA. The 72 combustion turbine units at six sites are quick-start facilities that, at times of peak demand, bolster TVA’s ability to ensure its customers have a reliable power supply. The combustion turbines generate about one percent of TVA’s power annually.

TVA began building nuclear power plants in the 1960s and currently has five operating units at three sites. These plants typically supply approximately 27 percent of TVA’s power. A sixth unit is currently in recovery and is expected to be online in 2007. (See “*Nuclear Power Program*” below.)

During 2003, 60 percent of the power generated by the TVA coordinated system was by coal-fired plants and combustion turbines, 29 percent by nuclear units, and 11 percent by hydroelectric units.

The following table summarizes the winter net dependable capacity (“NDC”) in megawatts (“MW”) on this coordinated system as of September 30, 2003:



<b>TVA-OWNED/LEASED FACILITIES</b>	<b>Location</b>	<b>Number of Units</b>	<b>Winter Net Dependable Capacity (MW) <sup>(1)</sup></b>	<b>Date Last Unit Placed in Service</b>
Hydroelectric				
Conventional Plants	North Carolina Tennessee Georgia Alabama and Kentucky	109	3,377	1914-1972
Pumped Storage	Tennessee	<u>4</u>	<u>1,645</u>	1979
Total Hydro		<u>113</u>	<u>5,022</u>	
Coal-Fired				
Allen	Tennessee	3	750	1959
Bull Run	Tennessee	1	870	1967
Colbert	Alabama	5	1,198	1965
Cumberland	Tennessee	2	2,528	1973
Gallatin	Tennessee	4	988	1959
John Sevier	Tennessee	4	712	1957
Johnsonville	Tennessee	10	1,254	1959
Kingston	Tennessee	9	1,456	1955
Paradise	Kentucky	3	2,275	1970
Shawnee	Kentucky	10	1,369	1956
Widows Creek	Alabama	<u>8</u>	<u>1,629</u>	1965
Total Coal-Fired		<u>59</u>	<u>15,029</u>	
Nuclear				
Browns Ferry	Alabama	2	2,286	1977
Sequoyah	Tennessee	2	2,322	1982
Watts Bar	Tennessee	<u>1</u>	<u>1,168</u>	1996
Total Nuclear		<u>5</u>	<u>5,776</u>	
Combustion Turbine				
Allen	Tennessee	20	568	1972
Colbert	Alabama	8	488	1972
Gallatin	Tennessee	8	724	2000
Johnsonville	Tennessee	20	1,348	2000
Kemper	Mississippi	4	372	2002
Lagoon Creek	Tennessee	<u>12</u>	<u>1,132</u>	2002
Total Combustion Turbine		<u>72</u>	<u>4,632</u> <sup>(2)</sup>	
Diesel Generators				
Meridian	Mississippi	5	9	1998
Bellefonte	Alabama	<u>2</u>	<u>14</u>	1998
Total Diesel Generators		<u>7</u>	<u>23</u> <sup>(2)</sup>	
TVA-Owned /Leased Facilities			<u>30,482</u>	
<b>OTHER FACILITIES (NON-TVA OWNED)</b>				
TAPOCO, Inc.			331 <sup>(3)</sup>	
U.S. Army Corps of Engineers			405 <sup>(4)</sup>	
Choctaw Generation, L.P.			<u>440</u> <sup>(5)</sup>	
Total Other Facilities			<u>1,176</u>	
Total Capacity			<u>31,658</u>	

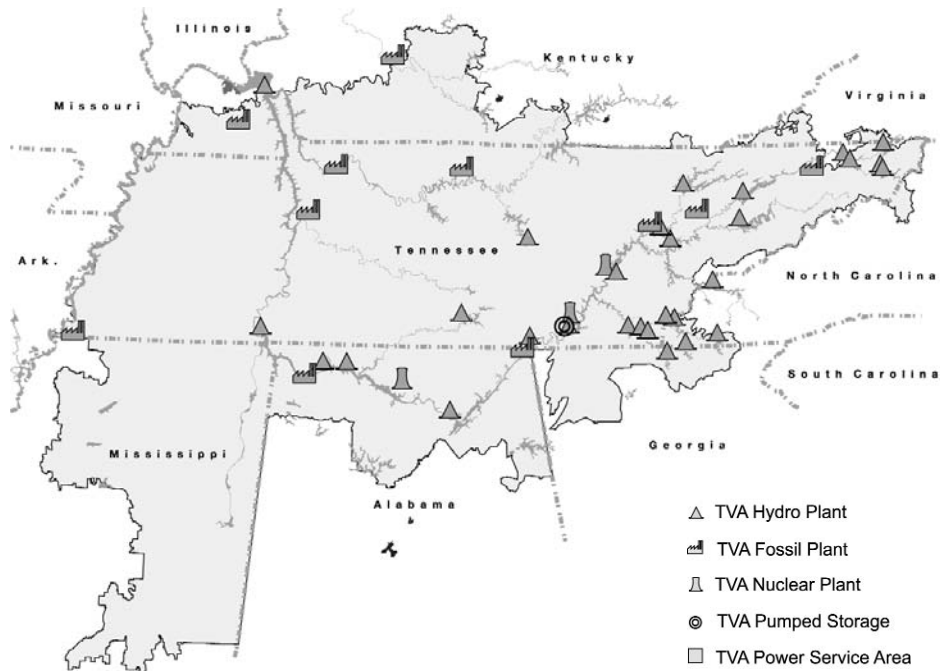
Notes

- (1) NDC as stated is the net power output which can be obtained for a period adequate to satisfy the daily load patterns under expected conditions of operation with equipment in an average state of maintenance excluding any fluctuations in capacity that may occur due to planned outages, unplanned outages, and deratings. For planning purposes, TVA currently estimates summer dependable total hydro capacity, including generation supplied under agreements with TAPOCO, Inc., and the Southeastern Power

Administration, of approximately 6,159 megawatts; coal-fired capacity (including Choctaw Generation L.P. plant capacity) of approximately 15,111 megawatts; nuclear power capacity of approximately 5,630 megawatts; and combustion turbine capacity (on gas at 95 degrees Fahrenheit) of approximately 3,843 megawatts, for a total summer NDC of approximately 30,743 megawatts.

- (2) Combustion turbine and diesel generator capacities include 4,632 megawatts for turbines and 23 megawatts for generators (on oil at 25 degrees Fahrenheit). As of September 30, 2003, 24 of TVA's combustion turbine units were leased to private entities and leased back to TVA under long-term leases.
- (3) Four hydro plants owned by TAPOCO, Inc., a subsidiary of Alcoa, Inc. ("Alcoa"), are operated as part of the TVA power system. Under contractual arrangements with TAPOCO, Inc., electric power generated at these facilities is supplied to TVA. In return, TVA supplies electric power for Alcoa's aluminum plant operations located in Tennessee.
- (4) Under arrangements among TVA, the U.S. Army Corps of Engineers (the "CORPS"), and the Southeastern Power Administration ("SEPA"), eight hydro plants of the CORPS on the Cumberland River system are operated in coordination with the TVA system. These arrangements further provide for capacity (405 megawatts) and energy from the Cumberland River system to be supplied to TVA by SEPA at the points of generation at a price based on the operating and maintenance expenses and amortization of the power facilities. A portion of the output of the Cumberland River system is also made available to SEPA's customers outside the TVA region. The agreement with SEPA covering these arrangements for power from the Cumberland River system can be terminated upon three years' notice. This notice may be given beginning June 30, 2017.
- (5) TVA has contracted with Choctaw Generation, L.P., for 440 megawatts from a lignite-fired generating plant in Chester, Mississippi. The contract has a 30-year term and terminates in 2032.

TVA has also supplemented its existing generation portfolio with additional renewable resource assets (wind, solar, and methane gas technologies). These assets account for about six megawatts of additional capacity. Current power projections indicate that in the near term power from generation sources within the TVA service area should be available to meet TVA's power needs at competitive prices.



## Transmission Operations

The TVA transmission system is one of the largest systems in North America and has maintained 99.999 percent reliability over the last four years in delivering electricity to customers. This system is comprised of about 17,000 circuit miles of transmission lines and includes 2,400 miles of extra-high-voltage (500,000 volt) transmission lines, 117,000 transmission-line structures, and 750 power facilities. There are over 240,000 right-of-way acres in TVA's 80,000-square-mile service area. During 2003, TVA added nearly 140 miles of transmission lines and 34 delivery

points for a total of 1,015 individual interchange and connection points. Indicators of reliability improved from 1.41 interruptions per customer connection point in 1999 to 0.90 in 2003 (36 percent). In addition, load-not-served minutes decreased from 9.45 minutes in 1999 to 4.21 minutes in 2003 (55 percent).

## Nuclear Power Program

### Overview

TVA has five operating nuclear units, three deferred nuclear units, and one nuclear unit in recovery that is scheduled to be returned to service in 2007. Selected features of each of these units are described in the chart below.

<u>Nuclear Unit</u>	<u>Status</u>	<u>Installed Capacity (MW)</u>	<u>Net Capacity Factor for 2003</u>	<u>Date of Expiration of Operating License</u>	<u>Date of Expiration of Construction License</u>
Sequoyah Unit 1	Operating	1,221	90.2	2020	–
Sequoyah Unit 2	Operating	1,221	87.6	2021	–
Browns Ferry Unit 2	Operating	1,190	94.0	2014	–
Browns Ferry Unit 3	Operating	1,190	94.6	2016	–
Watts Bar Unit 1	Operating	1,270	89.8	2035	–
Watts Bar Unit 2	Deferred	–	–	–	2010
Bellefonte Unit 1	Deferred	–	–	–	2011
Bellefonte Unit 2	Deferred	–	–	–	2014
Browns Ferry Unit 1	Recovery	–	–	2013	–

### Status of Certain Nuclear Units

Browns Ferry Unit 1 was taken offline in 1985 for modifications and improvements. The undepreciated cost of Browns Ferry Unit 1 of \$39 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. Reflecting the recent interest in the competitive cost of nuclear generation, the Board requested in September 2001 a technical study regarding the feasibility of recovering and restarting Browns Ferry Unit 1. In March 2002, the Board determined the operation of all three units at Browns Ferry over an extended license period could reduce TVA's delivered cost of power relative to the market. This should give TVA more financial flexibility for the future. Accordingly, the Board initiated activities for the return of Browns Ferry Unit 1 to service. It is anticipated that the Browns Ferry Unit 1 recovery project will cost approximately \$1.8 billion, excluding allowance for funds used during construction. Unit 1 is expected to return to service in 2007 and is expected to provide additional generating capacity of approximately 1,280 megawatts which is expected to lower the average cost of power and provide additional cash flow. As of September 30, 2003, TVA had incurred approximately \$406 million of costs on the restart project, which is in line with the total planned costs for the project. Planned spending for fiscal years 2004 to 2007 is \$407 million, \$419 million, \$381 million, and \$129 million, respectively.

TVA has three units in deferred status. In 1988, TVA suspended construction activities on Watts Bar Unit 2, and the unit is currently in lay-up. Bellefonte Unit 1 and Unit 2 were deferred in 1988 and 1985, respectively. Estimated 2004 expenditures for the three deferred units are limited to lay-up, maintenance, and ensuring that options for the use of the units remain viable.

In December 1994, TVA determined that it will not, by itself, complete Bellefonte Unit 1 and Unit 2 and Watts Bar Unit 2 as nuclear units. TVA's integrated resources 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-fired plant. The feasibility study indicated that one of the most economic 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 combined-cycle plant alternative as the preferred option. Bellefonte remains in a deferred status; however, TVA is re-examining its nuclear and nonnuclear options for Bellefonte.

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 nuclear assets, portions of Bellefonte Unit 1 and Unit 2 and Watts Bar Unit 2 in its entirety, were identified as assets for which the estimated cash flows provided through future rates were less than recorded book values. Consequently, in 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 "Business" — "Rates and Customers" in Part I and note 1 — *Impairment of Assets*).

#### *Spent Nuclear Fuel*

TVA has entered into a contract with the Department of Energy ("DOE") for the disposal of spent nuclear fuel. Payments are based on TVA's nuclear generation and charged to expense. The provisions of the contract called for DOE to begin accepting spent nuclear fuel from utilities on January 31, 1998, the date provided by the Nuclear Waste Policy Act of 1982. However, as of September 30, 2003, DOE has accepted no spent fuel. As a result of this failure, in April 2001 TVA filed a breach of contract lawsuit against the United States in the Court of Federal Claims. 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 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 storage casks in independent spent-fuel storage 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*

Low-level radioactive waste ("radwaste") resulting from the normal operation of nuclear units includes such materials as disposable protective clothing, mops, and filters. Disposal costs for radwaste have increased significantly in recent years. Pursuant to the Low-Level Radioactive Waste Policy Act, each state is responsible for disposal of radwaste 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 with 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 radwaste within the southeastern states.

Until July 1995, the radwaste generators located in the southeastern states were required to dispose of their radwaste at the Barnwell, South Carolina, disposal facility. South Carolina 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. South Carolina has 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 2008, no waste will be accepted from such states, which include Tennessee and Alabama.

After reviewing its storage and disposal options for radwaste management, TVA, in 1999, began storage of the type of radwaste that had previously been sent to Barnwell at the storage facilities located at two of TVA's plant sites. These facilities are sized to handle the anticipated storage needs for the foreseeable life of TVA's operating plants. A liability was recognized for this undisposed waste. In 2003, TVA resumed shipping the stored waste to Barnwell for disposal. TVA has also contracted to dispose of radwaste at Barnwell through June 2008.

#### *Nuclear Insurance*

The Price-Anderson Act provides coverage for the general public in the event of a nuclear accident. This act, which was established in 1957 by Congress, was extended until December 31, 2003. While Congress has not renewed the Price-Anderson Act, its provisions will remain in force for existing reactors.

Under the current Price-Anderson Act, there is over \$10.8 billion available to respond to a nuclear event. The first layer of this protection comes from the \$300 million nuclear liability insurance policy which TVA purchases from American Nuclear Insurers ("ANI") for each of its plants with an operating license. The second layer, the Secondary Financial Program ("SFP"), would come from an assessment of \$100.59 million from each of the 105 NRC licensed reactors in the United States. The assessment would be limited to \$10 million per year per reactor. ANI, under a contract with the NRC, administers the SFP. With its six licensed units, TVA could be required to pay a maximum of \$603.54 million per nuclear incident, but it would have to pay no more than \$60 million per incident in any one year.

Under the Price-Anderson Act there is a third layer of coverage. If the first two layers are exhausted, Congress is required to take action to provide additional funds to cover the damages.

#### *Nuclear Decontamination and Property Insurance*

NRC regulations require each nuclear power plant licensee to acquire \$1.06 billion of nuclear decontamination and property insurance. In accordance with NRC regulations, the proceeds of the insurance are to be used first to ensure the reactor is in a safe and stable condition and that it can be maintained in a condition that prevents significant risk to the public. Next, the proceeds are to be used for decontamination of the nuclear site. Lastly, any remaining insurance proceeds can be used for damage to the site property.

TVA buys \$2.06 billion of nuclear decontamination and property insurance from Nuclear Electric Insurance Limited (“NEIL”).

Under each of the NEIL policies, there is a potential retrospective premium assessment. Currently, the assessment is ten times the annual premium which equals a retrospective premium of approximately \$58 million. The assessment could be called by the NEIL Board if the loss reserves and available reinsurance were exhausted.

#### *Operating License Extensions*

In December 2003, TVA submitted an application to the NRC for a 20-year renewal of the operating licenses for three reactors at Browns Ferry Nuclear Plant. Current expiration dates for the Browns Ferry units are:

Browns Ferry Unit 1 . . . . .	2013
Browns Ferry Unit 2 . . . . .	2014
Browns Ferry Unit 3 . . . . .	2016

The original 40-year term on licenses per the Atomic Energy Act and the NRC regulations was based on economic and antitrust considerations—not on limitations of technology. If the NRC approves the application, it will allow TVA to continue production of power from the facility until 2033, 2034, and 2036 for Units 1, 2, and 3, respectively.

#### *Tritium Production Approved*

In September 2002, the NRC issued an amendment to the Watts Bar Nuclear Plant operating license, allowing TVA to irradiate tritium-producing burnable absorber rods (“TPBARS”) at the plant to provide tritium to the DOE. TVA’s license amendment permits it to install up to 2,304 of the TPBARS per fuel cycle into the Watts Bar reactor and to irradiate them for a full cycle which lasts about 18 months. TVA will then remove the irradiated TPBARS for shipment to DOE’s tritium-extraction facility at the Savannah River Site near Aiken, South Carolina. TVA began tritium production at Watts Bar in the fall of 2003. Also in September 2002, the NRC issued a similar amendment to the Sequoyah Nuclear Plant operating license allowing tritium production. At this time, no tritium production has been scheduled at the Sequoyah Nuclear Plant. While producing tritium, TVA is able to operate the reactors for its program mission of producing electricity.

TVA has a long-term interagency agreement with DOE to utilize TVA’s Sequoyah and Watts Bar Nuclear Plants to produce tritium. The agreement has been designed so that DOE funds and not TVA power funds support this program. This agreement, ending in 2035, requires DOE to reimburse TVA for costs incurred. DOE will pay TVA’s costs to irradiate TPBARS in the nuclear reactors at Watts Bar and Sequoyah Nuclear Plants. DOE will fabricate the TPBARS and TVA will insert them into the reactors during routine refueling outages. After irradiation, the TPBARS will be removed by TVA at the next refueling outage and returned to DOE for use in the production of tritium.

The interagency agreement under the Economy Act describes the standard tritium program costs which TVA may recover from DOE. These reimbursements include fixed payments for reasonable estimates of costs to be incurred by TVA for specific work tasks, reimbursable costs for actual costs incurred by TVA not identified under fixed payments, third party costs incurred by TVA, and estimated costs in excess of direct costs that may be incurred for the tritium program. As of September 30, 2003, TVA has been reimbursed by DOE for costs incurred for the program.

#### **Combustion Turbine Installations**

TVA installed eight 85 megawatt natural-gas combustion turbines at its new Lagoon Creek site in western Tennessee in time for the summer 2001 peak demands for power. TVA also installed eight additional 85 megawatt natural-gas combustion turbines in 2002, four units at the Lagoon Creek site and four at TVA’s Kemper County,

Mississippi site. This brings the total number of TVA combustion turbines to 72 units — 24 of which were put on the ground during the past three years.

### **Stewardship Activities**

TVA has federal jurisdiction for managing the United States' fifth largest river system, the Tennessee River and its tributaries, to deliver multiple benefits, including year-round navigation, reduced risk of flooding, affordable and reliable electricity, and, consistent with these primary purposes, recreational opportunities, adequate water supply, improved water quality, and sustainable economic development. TVA owns and operates 49 dams which comprise its integrated reservoir system. Twenty-nine of these dams produce conventional hydroelectric power, and one additional project is solely a pumped storage hydroelectric project. The reservoir system provides 800 miles of commercially navigable waterways and also provides significant flood reduction benefits both within the Valley and downstream on the lower Ohio and Mississippi Rivers. Total flood damages averted in 2003 were approximately \$500 million. The reservoir system also provides a dependable water supply for residential and industrial customers, including cooling water for TVA thermal power projects. Recreation, water quality, and sustainable economic development are also supported by the operation of the TVA reservoir system.

TVA's responsibilities for managing public resources began with its creation in 1933. It has direct stewardship responsibility for 293,000 acres of public land, 11,000 miles of shoreline, and 650,000 acres of reservoir water surface available for recreation and other purposes. TVA reservoirs and public lands provide outdoor recreation opportunities for millions of visitors each year. TVA has over 100 recreation facilities including campgrounds, boat ramps, fishing piers, and picnic areas. More than 228,000 acres of the public land managed by TVA have been designated for resource management, including the enhancement of wildlife habitat and protection of sensitive resources.

TVA's stewardship properties include assets of \$694 million representing multipurpose dams and reservoirs used for navigation, flood control, recreation, and economic development (see note 10).

### **LEGAL PROCEEDINGS**

In the fall of 1999, the Environmental Protection Agency ("EPA") commenced judicial or administrative actions against a number of utilities in the eastern United States, including TVA, alleging that they modified their coal-fired units without complying with new source review ("NSR") requirements. EPA issued an administrative order directing TVA to put new source controls on 14 of its coal-fired units and evaluate whether more controls should be installed on other units. TVA challenged the validity of this order, and on June 24, 2003, the Eleventh Circuit Court of Appeals issued its decision in the case. Although the Eleventh Circuit did not rule on the merits of the case, a three judge panel of the court held that the procedure used by EPA against TVA was "unconstitutional" and that "TVA is free to ignore" EPA's administrative compliance order because it was "legally inconsequential" and did not constitute final agency action. The Eleventh Circuit concluded that part of the Clean Air Act ("CAA") is unconstitutional because it allows EPA to decide that a regulated party like TVA has violated the law and is liable for severe penalties without ever allowing the regulated party to present evidence on whether the law was in fact violated. The court said that EPA may sue TVA in district court to try to prove its case. The EPA, through the Department of Justice, moved for reconsideration en banc by the Eleventh Circuit of the court's decision. The Eleventh Circuit denied EPA's motion for rehearing. The EPA may seek review of the Eleventh Circuit's decision in the Supreme Court. The outcome of this litigation and the EPA proceedings is uncertain. It is not possible to predict with certainty what impact implementation of EPA's order would have on TVA if EPA prevails on the merits. TVA could be required to incur capital costs in excess of \$3 billion by 2010 to 2012 to implement EPA's order (see note 9 — *Contingencies— Environmental Matters — Clean Air Developments*). Any additional controls that TVA could be required to install on units as a result of this matter, however, would also apply toward other reduction requirements that are anticipated under developing CAA regulatory programs (discussed under "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" — "*Environmental Matters*" in Part II). Thus, because of the other CAA program requirements, TVA would, in any event, likely have to incur a substantial portion of the costs that might result from the EPA enforcement action. 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 National Parks Conservation Association ("NPCA") and the Sierra Club filed cases in two federal district courts in 2001 raising the same NSR allegations at TVA's Bull Run Fossil Plant and Colbert Fossil Plant Unit 5 as were raised in the EPA proceeding found unconstitutional by the Eleventh Circuit. Both cases were stayed pending resolution of matters raised in the Eleventh Circuit NSR litigation discussed above and the stays continue in effect.

Environmental groups are taking legal action against TVA, as well as against other utilities across the country, for allegedly violating opacity limits applicable to coal-fired plants.

- The Alabama Environmental Council and the Sierra Club filed a lawsuit in federal district court in Florence, Alabama, alleging that TVA violated CAA opacity limits applicable to Colbert Fossil Plant between July 1, 1997, and June 30, 2002. The groups seek a court order that could require TVA to incur substantial costs in addition to the costs TVA is already planning to incur for environmental controls, and to pay civil penalties of up to approximately \$250 million. On February 20, 2003, the federal district court dismissed the claim against TVA for civil penalties. These groups are still seeking a court order (1) declaring TVA in violation of opacity limits and (2) requiring TVA to bring Colbert Fossil Plant into compliance with these limits. This case had been set for trial in the fall of 2003. However, the case was reassigned to another district court judge and the new judge has not set a trial date. It is unlikely that the trial will occur before the spring of 2004.
- On July 25, 2003, TVA received a notice of intent to sue from Our Children's Earth Foundation ("OCE"). OCE alleges that TVA violated the NSR requirements of the CAA by undertaking major modifications of TVA's Allen Unit 3, Bull Run, Cumberland Units 1 and 2, Kingston Units 6 and 8, John Sevier Unit 3, Paradise Units 1, 2, and 3, Shawnee Units 1 and 4, Colbert Unit 5, and Widows Creek Unit 5. OCE also alleges the CAA new source performance standards at Colbert Unit 5 and the operations at TVA's Johnsonville Fossil Plant have not met the applicable opacity requirements. This notice does not allege a specific amount of damages. OCE's allegations about Bull Run and Colbert Unit 5 are already the subject of litigation in federal district courts initiated by the NPCA and the Sierra Club. Both of these cases were stayed pending resolution of the matters raised in the Eleventh Circuit NSR litigation discussed above. OCE states in their notice that they intend to file suit anytime after 60 days from the date of their letter but they have not done so to date.
- The Sierra Club gave notice in a September 26, 2002, letter that it intends to sue TVA for violating CAA opacity limits applicable to the John Sevier and Kingston Fossil Plants. The notice claims that TVA violated opacity standards at the two plants from July 1, 1997, to the present. The alleged opacity violations substantially overlap those that were challenged in a lawsuit filed by the NPCA three years ago in federal court in Knoxville, Tennessee. TVA ultimately prevailed in that lawsuit.

For a discussion of TVA's CAA activities, see "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" — "*Environmental Matters*" in Part II.

On December 28, 2001, Bowater Incorporated and Bowater Newsprint South, Inc. (together, "Bowater") filed a lawsuit against TVA in federal court in Knoxville challenging TVA's charges for Economy Surplus Power ("ESP") and Testing and Restart Power ("TRP") for two Bowater plants. In its complaint, Bowater alleges that in violation of the contract provision which states that TVA will charge ESP and TRP customers based on TVA's actual hourly incremental cost of providing ESP (1) TVA included certain alleged non-incremental costs in the prices for ESP and TRP, and (2) when calculating such prices, TVA used the cost of providing the most expensive 100 megawatts of ESP sold during a given hour instead of the average cost in that hour of serving the entire ESP load. The complaint also alleges that TVA has been unjustly enriched as a result of these overcharges. The lawsuit seeks, among other things, compensatory damages in excess of \$39 million and interest of more than \$15 million. The case is set for trial in January 2005.

On August 31, 1999, Birmingham Steel Corporation filed a lawsuit in the U.S. District Court for the Northern District of Alabama alleging that TVA overcharged for ESP during the summer of 1998. The lawsuit was filed as a class action on behalf of industrial customers who participated in TVA's ESP program. Under ESP contracts, the hourly ESP energy price is calculated using TVA's actual incremental cost of supplying the ESP load in each hour. The plaintiff alleges that TVA overcharged for ESP during the summer of 1998 by including in the price of ESP some costs that were added to TVA's incremental cost. The complaint seeks over \$100 million in damages on behalf of Birmingham Steel and the other class members. In September 2002, the district court decertified the class and then dismissed Birmingham Steel's individual claim without prejudice on a jurisdictional issue. The class lawyers appealed the ruling on class decertification, and in December 2003, the U.S. Court of Appeals for the Eleventh Circuit reversed that ruling and sent the case back to the district court to allow the class lawyers a reasonable time to find a new class representative. If the class lawyers are unsuccessful, the Eleventh Circuit indicated that the class could then be decertified. At the present time, TVA believes it is more likely than not that a new class representative will not come forward.

TVA is a party to various other civil lawsuits and claims that have arisen in the ordinary course of its busi-

ness. Although the outcome of these other civil 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.

## **CERTAIN PROVISIONS OF THE TENNESSEE VALLEY AUTHORITY ACT AND RELATED LAWS**

*The following summaries of certain provisions of the Act and related laws are not complete and are qualified in their entireties by reference to the full text of the Act and related laws.*

### **Payments in Lieu of Taxes**

TVA is not subject to federal income taxes or to taxation by states or their subdivisions. However, the Act requires TVA to make payments in lieu of taxes to states and counties in which the Corporation conducts power operations and in which the Corporation has acquired properties previously subject to state and local taxation. The basic amount of these payments is five percent of gross revenues from the sale of power during the preceding year excluding sales or deliveries to other federal agencies and off-system sales to other utilities, with a provision for minimum payments under certain circumstances. During 2003 and 2002, TVA made payments totaling \$329 million and \$328 million, respectively, to the states of Alabama, Georgia, Illinois, Kentucky, Mississippi, North Carolina, Tennessee, and Virginia.

### **Payments to the Treasury**

The Act requires TVA to make certain payments to the Treasury each year from Net Power Proceeds in excess of those required for debt service as a return on and reduction of the appropriation investment. The appropriation investment totaled \$468 million as of September 30, 2003. Net Power Proceeds are defined as the remainder of gross power revenues from TVA's power program

*after deducting*

- the costs of operating, maintaining, and administering its power properties (including multiple-purpose properties in the proportion that multiple-purpose costs are allocated to power) and
- payments to states and counties in lieu of taxes,

*but before deducting*

- depreciation accruals or other charges representing the amortization of capital expenditures,

*plus*

- the net proceeds of the sale or other disposition of any interest in TVA's power properties that constitute an operating unit or system.

### **Acquisition of Real Estate**

The Act empowers TVA to acquire real estate in the name of the United States of America by purchase or by exercise of the right of eminent domain, "and thereupon all such real estate shall be entrusted to the Corporation as the agent of the United States to accomplish the purposes of [the] Act." Thus, all references in this Statement to TVA properties, and to the amounts invested in TVA properties, should be read and construed in the light of this provision of the Act.

### **Public Law No. 105-62**

In October 1997, Congress enacted the Energy and Water Development Appropriations Act, 1998, Pub. L. No. 105-62, 111 Stat. 1320, 1338 (1997). The paragraph captioned "TENNESSEE VALLEY AUTHORITY" in Title IV of this act (the "Appropriations Act Paragraph") requires TVA, beginning with 1999, to fund nonpower programs that constitute "essential stewardship activities" with revenues derived from one or more of various sources, including power revenues, notwithstanding provisions of the TVA Act and power bond covenants to the contrary. These programs historically had been funded with appropriated funds rather than power revenues.



The Appropriations Act Paragraph states:

For the purpose of carrying out the provisions of the Tennessee Valley Authority Act of 1933, as amended (16 U.S.C. ch. 12A), including hire, maintenance, and operation of aircraft, and purchase and hire of passenger motor vehicles, \$70,000,000, to remain available until expended, of which \$6,900,000 shall be available for operation, maintenance, surveillance, and improvement of Land Between the Lakes; and for essential stewardship activities for which appropriations were provided to the Tennessee Valley Authority in Public Law 104-206, such sums as are necessary in fiscal year 1999 and thereafter, to be derived only from one or more of the following sources: nonpower fund balances and collections; investment returns of the nonpower program; applied programmatic savings in the power and nonpower programs; savings from the suspension of bonuses and awards; savings from reductions in memberships and contributions; increases in collections resulting from nonpower activities, including user fees; or increases in charges to private and public utilities both investor and cooperatively owned, as well as to direct load customers: Provided, That such funds are available to fund the stewardship activities under this paragraph, notwithstanding sections 11, 14, 15, 29, or other provisions of the Tennessee Valley Authority Act, as amended, or provisions of the TVA power bond covenants: Provided further, That the savings from, and revenue adjustments to, the TVA budget in fiscal year 1999 and thereafter shall be sufficient to fund the aforementioned stewardship activities such that the net spending authority and resulting outlays for these activities shall not exceed \$0 in fiscal year 1999 and thereafter.

Since 1999, Congress has provided no appropriations for TVA's nonpower programs. In compliance with the Appropriations Act Paragraph, TVA is and will continue funding its essential stewardship activities with funds from its power program (and other available funds) to the extent that Congress does not make appropriations for these activities.

In 1999, the last year TVA received appropriated funds, it spent a total of approximately \$75 million on essential stewardship activities, \$30 million of which was power funds. In both 2002 and 2003, TVA spent a total of approximately \$83 million per year on essential stewardship activities, virtually all of which was power funds (see note 10).

## **THE BASIC RESOLUTION; POWER BONDS, DISCOUNT NOTES AND OTHER INDEBTEDNESS**

TVA issues Power Bonds pursuant to Section 15d of the Act and pursuant to the Basic Resolution. At September 30, 2003, TVA had \$20.9 billion, DM 1.5 billion (issued in September 1996), and £600 million (£200 million issued in December 1998, £250 million issued in July 2001, and £150 million issued in June 2003) principal amount of Power Bonds outstanding. TVA may issue Power Bonds only to provide capital for TVA's power program (including refunding any Evidences of Indebtedness issued for like purposes) and only as authorized by law at the time of issuance. Power Bonds are payable as to both principal and interest solely from Net Power Proceeds, but TVA may, at its option, pay Power Bonds from the proceeds of refunding obligations or other funds legally available for such payment. Net Power Proceeds for fiscal years 2003, 2002, and 2001 were \$2.8 billion, \$2.8 billion, and \$3.3 billion, respectively. Power Bonds of each series must be further authorized by Supplemental Resolution. *Power Bonds are not obligations of, or guaranteed by, the United States of America.*

TVA intends from time to time to issue new Power Bonds with maturities and terms determined in light of market conditions at the time of sale. TVA may sell new Power Bonds to dealers or underwriters, who may resell the new Power Bonds in public offerings or otherwise. Additionally, TVA may sell new Power Bonds directly or through other entities.

The offering circular, and any appropriate amendment or supplement to the offering circular, for each offering of new Power Bonds, except for new Power Bonds offered under a program on a continuous basis, will set forth the following information: (1) the aggregate principal amount, (2) maturity, (3) interest rate or method for determining such rate, (4) interest payment dates, if any, (5) purchase price to be paid to TVA, (6) any terms for redemption or other special terms, (7) form and denomination of new Power Bonds, (8) if applicable, information as to any stock exchange listing, (9) the names of any dealers, underwriters, or agents, (10) a description of any amendments or supplements to the Basic Resolution in connection with the sale of the new Power Bonds, and (11) other terms of the new Power Bonds.

For Power Bonds offered under a program on a continuous basis, TVA will prepare a single offering circular that describes the general terms and conditions common to all Power Bonds issued under the program. The offering

circular will describe how, if at all, the offering circular will be supplemented in order to reflect, among other things, the specific terms and conditions of the Power Bonds being offered. At the time of each sale, TVA will determine if the Power Bonds being sold will be subject to redemption prior to the maturity date and will establish the purchase price, principal amount, interest rate or interest rate formula, maturity date, and certain other terms of such sale.

TVA also issues Discount Notes pursuant to Section 15d of the Act and in accordance with Section 2.5 of the Basic Resolution. As of September 30, 2003, TVA had approximately \$2.1 billion in Discount Notes outstanding. Discount Notes are payable solely from Net Power Proceeds, but TVA may, at its option, pay Discount Notes from the proceeds of refunding obligations or other funds legally available for such payment. TVA intends to offer Discount Notes for sale on a continuous basis to a group of securities dealers selected by TVA, who will resell the notes. TVA will issue Discount Notes in a form and upon terms and conditions as it deems appropriate. Certain information respecting Discount Notes will be set forth in a Discount Notes offering circular and any appropriate supplement to the offering circular. *Discount Notes are not obligations of, or guaranteed by, the United States of America.*

TVA may issue Other Indebtedness pursuant to Section 15d of the Act and in accordance with Section 2.5 of the Basic Resolution. An offering circular, and any appropriate amendment or supplement to the offering circular, for each offering of Other Indebtedness will set forth the following information: (1) the aggregate principal amount, (2) maturity, (3) interest rate or method for determining such rate, (4) interest payment date(s), (5) purchase price to be paid to TVA, (6) any terms for redemption or other special terms, (7) form and denomination of Other Indebtedness, (8) if applicable, information as to any stock exchange listing, (9) the names of any dealers, underwriters or agents, and (10) other terms of Other Indebtedness. *Other Indebtedness will not be obligations of, or guaranteed by, the United States of America.*

Income on Evidences of Indebtedness issued by TVA is subject to United States federal income taxation and various other federal tax consequences. There is no special exemption for Evidences of Indebtedness from federal estate and gift taxes. Under the Act, Evidences of Indebtedness are exempt both as to principal and interest from all taxation now or hereafter imposed by any state or local taxing authority except estate, inheritance, and gift taxes. This exemption might not extend to franchise or other nonproperty taxes imposed on corporations or to gain or loss realized upon the sale or exchange of an Evidence of Indebtedness even though such gain might in some cases be treated as interest income for federal income tax purposes.

*The following summary of certain provisions of the Basic Resolution is not complete and is qualified in its entirety by reference to the full text of the Basic Resolution. See also "Certain Provisions of the Tennessee Valley Authority Act and Related Laws" — "Public Law No. 105-62."*

### **Application of Net Power Proceeds**

*Section 2.3 of the Basic Resolution provides as follows:*

Net Power Proceeds shall be applied, and the Corporation hereby specifically pledges them for application, first to payments due as interest on Bonds, on Bond Anticipation Obligations, and on any Evidences of Indebtedness issued pursuant to Section 2.5 which rank on a parity with Bonds as to interest; to payments of the principal due on Bonds for the payment of which other provisions have not been made and on any Evidences of Indebtedness issued pursuant to Section 2.5 which rank on a parity with Bonds as to principal and for the payment of which other provisions have not been made; and to meeting requirements of sinking funds or other analogous funds under any Supplemental Resolutions. The remaining Net Power Proceeds shall be used only for:

- (a) Required interest payments on any Evidences of Indebtedness issued pursuant to Section 2.5 which do not rank on a parity with Bonds as to interest.
- (b) Required payments of or on account of principal of any Evidences of Indebtedness which do not rank on a parity with Bonds as to principal.
- (c) Minimum payments into the Treasury required by the Act in repayment of and as a return on the Appropriation Investment.
- (d) Investment in Power Assets, additional reductions of the Corporation's capital obligations, and other lawful purposes related to the Power Program; provided, however, that payments into the Treasury in any fiscal year in reduction of the Appropriation Investment in addition to the minimum amounts

required for such purpose by the Act may be made only if there is a net reduction during such year in the dollar amount of outstanding Evidences of Indebtedness issued for capital purposes, and only to such extent that the percentage of aggregate reduction in the appropriation investment during such year does not exceed the percentage of net reduction during the year in the dollar amount of outstanding Evidences of Indebtedness issued for capital purposes.

*Section 2.4 of the Basic Resolution provides as follows:*

The Corporation, having first adopted a Supplemental Resolution authorizing the issuance of a series of Bonds and pending such issuance, may issue Bond Anticipation Obligations and renewals thereof (including Interim Obligations to the Secretary of the Treasury) to be paid from the proceeds of such series of Bonds when issued or from other funds that may be available for that purpose.

*Section 2.5 of the Basic Resolution provides as follows:*

To assist in financing its Power Program the Corporation may issue Evidences of Indebtedness other than Bonds and Bond Anticipation Obligations, which may be payable out of Net Power Proceeds subject to the provisions of Section 2.3 hereof. Such other Evidences of Indebtedness may rank on parity with, but shall not rank ahead of the Bonds as to payments on account of the principal thereof or the interest thereon.

See “*Certain Provisions of the Tennessee Valley Authority Act and Related Laws*” — “*Public Law No. 105-62*” and note 10 in Part II for a discussion of legislation relating to appropriations for TVA’s nonpower programs and the funding of such programs, including the use of power revenues.

## **Rate Covenant**

*Section 3.2 of the Basic Resolution provides as follows:*

The Corporation shall fix, maintain, and collect rates for power sufficient to meet in each fiscal year the requirements of that portion of the present subsection (f) of section 15d of the Act which reads as follows:

The Corporation shall charge rates for power which 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; debt service on outstanding bonds, including provision and maintenance of reserve funds and other funds established in connection therewith; payments to the Treasury as a return on the appropriation investment pursuant to subsection (e) hereof; payment to the Treasury of the repayment sums specified in subsection (e) hereof; and such additional margin as the Board may consider desirable for investment in power system assets, retirement of outstanding bonds in advance of maturity, additional reduction of appropriation investment, and other purposes connected with the Corporation’s power business, having due regard for the primary objectives of the Act, including the objective that power shall be sold at rates as low as are feasible.

For purposes of this Resolution, “debt service on outstanding bonds,” as used in the above provision of the Act, shall mean for any fiscal year the sum of all amounts required to be (a) paid during such fiscal year as interest on Evidences of Indebtedness, (b) accumulated in such fiscal year in any sinking or other analogous fund provided for in connection with any Evidences of Indebtedness, and (c) paid in such fiscal year on account of the principal of any Evidences of Indebtedness for the payment of which funds will not be available from sinking or other analogous funds, from the proceeds of refunding issues, or from other sources; provided, however, that for purposes of clause (c) of this definition Bond Anticipation Obligations and renewals thereof shall be deemed to mature in the proportions and at the times provided for paying or setting aside funds for the payment of the principal of the authorized Bonds in anticipation of the issuance of which such Bond Anticipation Obligations were issued.

The rates for power fixed by the Corporation shall also be sufficient so that they would cover all requirements of the above-quoted provision of subsection (f) of section 15d of the Act if, in such requirements, there were substituted for “debt service on outstanding bonds” for any fiscal year the amount which if applied annually for 35 years would retire, with interest at the rates applicable thereto, the originally issued amounts of all series of Bonds and other Evidences of Indebtedness, any part of which was outstanding on October 1 of such year.

Rates set by the Board are not subject to review or approval by any state or federal regulatory body. In a

future restructured electric power industry (discussed in “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” — “*TVA and Competition*” in Part II), it is possible, however, that the ability of TVA’s Board to set TVA’s rates as specified in the TVA Act and the Basic Resolution could be adversely affected by legislative changes or by competitive pressures.

### **Covenant for Protection of Bondholders’ Investment**

Under the Act and Section 3.3 of the Basic Resolution, TVA must, in each successive five-year period beginning October 1, 1960, use an amount of Net Power Proceeds at least equal to the sum of (1) depreciation accruals and other charges representing the amortization of capital expenditures and (2) the net proceeds from any disposition of power facilities for either (a) the reduction of its capital obligations (including Evidences of Indebtedness and the Appropriation Investment) or (b) investment in power assets.

### **Issuance of Additional Bonds and Other Evidences of Indebtedness**

The Act limits the issuance of Evidences of Indebtedness by TVA to a total of \$30 billion outstanding at any one time. At September 30, 2003, TVA had approximately U.S. \$22.9 billion, DM1.5 billion (issued in September 1996), £600 million (£200 million issued in December 1998, £250 million issued in July 2001, and £150 million issued in June 2003) of Evidences of Indebtedness outstanding. The Basic Resolution and the Act permit the issuance of Power Bonds only to finance TVA’s power program, including the refunding of any Evidences of Indebtedness issued for that purpose.

Power Bonds, the terms and conditions of which may not be inconsistent with the Basic Resolution, must also be authorized by Supplemental Resolution. The Basic Resolution provides that each Supplemental Resolution authorizing the issuance of Power Bonds must contain a finding by the Board that after the authorized Power Bonds have been issued, gross revenues from TVA’s power program will be adequate to meet the requirements of the Basic Resolution with respect to rates and the application of depreciation accruals. These requirements are described under “*The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness*” — “*Rate Covenant*” and “*Covenant for Protection of Bondholders’ Investment*” above.

Pending the issuance of Power Bonds authorized by a Supplemental Resolution, TVA may issue Bond Anticipation Obligations and renewals of Bond Anticipation Obligations (including Interim Obligations to the Secretary of the Treasury), to be paid from the proceeds of such Power Bonds when issued or from other funds that may be available for that purpose.

TVA may also issue Evidences of Indebtedness other than Power Bonds and Bond Anticipation Obligations, such as Discount Notes, to assist in financing TVA’s power program. They may be payable out of Net Power Proceeds subject to the provisions of Section 2.3 of the Basic Resolution. They may not rank ahead of the Power Bonds as to principal or interest.

### **Mortgaging and Disposal of Power Properties**

TVA may not mortgage any part of its power properties and may not dispose of all or any substantial portion of these properties unless it provides for a continuance of the interest, principal, and sinking fund payments due and to become due on all outstanding Evidences of Indebtedness, or for the retirement of such Evidences of Indebtedness.

### **Modifications of Resolutions and Outstanding Bonds**

The Basic Resolution provides for amendments to it, to any Supplemental Resolution, and to any outstanding Power Bonds. Generally, TVA may make amendments to the respective rights and obligations of TVA and the bondholders with the written consent of the holders of at least 66 2/3 percent in principal amount of the outstanding Power Bonds to which the amendment applies. However, TVA may not make changes in the maturity of the principal of any Power Bond or any interest installment thereon or reduction in the principal amount, redemption premium, or rate of interest with respect to any Power Bond, or in the above percentage for any such consent, without the consent of the holder of such Power Bond.

Additionally, TVA may amend the Basic Resolution or any Supplemental Resolution without the consent of the bondholders in order (1) to close the Basic Resolution against the issuance of additional Power Bonds or to restrict such issuance by imposing additional conditions or restrictions; (2) to add other covenants and agreements to be observed by TVA or to eliminate any right, power, or privilege conferred upon TVA by the Basic Resolution; (3) to mod-

ify any provisions to release TVA from any of its obligations, covenants, agreements, limitations, conditions, or restrictions, provided that such modification or release shall not become effective with respect to any Power Bonds issued prior to the adoption of such amendment; (4) to correct any defect, ambiguity, or inconsistency in, or to make provisions in regard to matters or questions arising under, the Basic Resolution or any Supplemental Resolution, so long as such amendments are not contrary to, or inconsistent with, the Basic Resolution or such Supplemental Resolution; or (5) to make any other modification or amendment which the Board by resolution determines will not materially and adversely affect the interests of holders of the Power Bonds.

### **Events of Default**

Any of the following shall be deemed an Event of Default under the Basic Resolution: (1) default in the payment of the principal or redemption price of any Power Bond when due and payable at maturity, by call for redemption or otherwise; (2) default in the payment of any installment of interest on any Power Bond when due and payable for more than 30 days; or (3) failure of TVA to duly perform any other covenant, condition, or agreement contained in the Power Bonds or in the Basic Resolution or any Supplemental Resolution for 90 days after written notice specifying such failure has been given to TVA by the holders of at least five percent in aggregate principal amount of the then-outstanding Power Bonds.

Upon any such Event of Default, the holders of the Power Bonds may proceed to protect and enforce their respective rights, subject to the restrictions described below. The holders of at least five percent in aggregate principal amount of Power Bonds then outstanding shall, subject to certain restrictions, have the right and power to institute a proceeding (1) to enforce TVA's covenants and agreements, (2) to enjoin any acts in violation of the rights of holders of Power Bonds, and (3) to protect and enforce the rights of holders of Power Bonds. Such holders have no right to bring any such action or proceeding against TVA unless they have given TVA written notice of an Event of Default and TVA has had a reasonable opportunity to take appropriate corrective action with respect thereto and has failed or refused to do so. *Power Bonds do not provide for acceleration upon an Event of Default.*

Holders of a majority in aggregate principal amount of the outstanding Power Bonds have the right to direct the time, method, and place of conducting any proceeding for any remedy available and may waive any default and its consequences, except a default in the payment of the principal of or premium, if any, or interest on any Power Bonds.

### **Fourth Amendatory Resolution to the Basic Resolution**

On March 25, 1992, TVA adopted a resolution amending the Basic Resolution, entitled "Fourth Amendatory Resolution to Basic Tennessee Valley Authority Power Bond Resolution," that (1) deleted from the Basic Resolution limitations on issuance of Power Bonds formerly set forth as Section 3.4 thereof and (2) amended the Basic Resolution to permit issuance of other Evidences of Indebtedness under Section 2.5 thereof that rank on a parity with Power Bonds as to principal and interest. With the deletion of Section 3.4 of the Basic Resolution, Sections 3.5 through 3.10 were renumbered as appropriate. This amendatory resolution became effective December 16, 1999, with retroactive application to all Power Bonds issued after March 25, 1992.

**PART II**

**SELECTED FINANCIAL DATA**

The following selected financial data of TVA's power program for the years 2001 through 2003 should be read in conjunction with the audited financial statements and notes thereto (collectively the "Financial Statements") presented in "Financial Statements and Supplementary Data." Certain reclassifications have been made to the 2002 and 2001 financial statements to conform to the 2003 presentation (see note 12).

**Condensed Statements of Income  
(in millions)**

	<b>For the years ended September 30</b>		
	<b>2003</b>	<b>2002</b>	<b>2001</b>
Operating revenues . . . . .	\$ 6,952	\$ 6,796	\$ 6,895
Operating expenses . . . . .	<u>(5,375)</u>	<u>(5,147)</u>	<u>(5,402)</u>
Operating income . . . . .	1,577	1,649	1,493
Other income, net . . . . .	12	7	248
Loss on plant cancellation/asset impairment . . . . .	—	(154) <sup>(1)</sup>	( 3,419) <sup>(2)</sup>
Interest expense, net . . . . .	<u>(1,350)</u>	<u>(1,429)</u>	<u>(1,633)</u>
Income (loss) before cumulative effects of accounting changes . . . . .	239	73	(3,311)
Cumulative effects of accounting changes . . . . .	<u>217</u> <sup>(3)</sup>	<u>—</u>	<u>—</u>
Net income (loss) . . . . .	<u>\$ 456</u>	<u>\$ 73</u>	<u>\$ (3,311)</u>

**Condensed Balance Sheets  
(in millions)**

	<b>At September 30</b>		
	<b>2003</b>	<b>2002</b>	<b>2001</b>
<b>Assets</b>			
Current assets . . . . .	\$ 2,053	\$ 1,530	\$ 1,501
Property, plant, and equipment, net . . . . .	26,634	25,679	25,643
Investment funds . . . . .	905	659	725
Deferred charges and other assets . . . . .	<u>2,801</u>	<u>2,290</u>	<u>1,830</u>
<b>TOTAL ASSETS . . . . .</b>	<u><b>\$ 32,393</b></u>	<u><b>\$ 30,158</b></u>	<u><b>\$ 29,699</b></u>
<b>Liabilities and proprietary capital</b>			
Current liabilities . . . . .	\$ 5,896	\$ 4,809	\$ 6,334
Other liabilities . . . . .	5,119	3,304	2,806
Long-term debt, net of discount . . . . .	<u>20,201</u>	<u>21,358</u>	<u>19,851</u>
Total liabilities . . . . .	<u>31,216</u>	<u>29,471</u>	<u>28,991</u>
Retained earnings . . . . .	783	349	306
Other proprietary capital . . . . .	<u>394</u>	<u>338</u>	<u>402</u>
Total proprietary capital . . . . .	<u>1,177</u>	<u>687</u>	<u>708</u>
<b>TOTAL LIABILITIES AND PROPRIETARY CAPITAL . . . . .</b>	<u><b>\$ 32,393</b></u>	<u><b>\$ 30,158</b></u>	<u><b>\$ 29,699</b></u>

**Notes**

- (1) Due to changes in the market forecast, TVA elected not to complete a gas-fired combined cycle plant in 2002. TVA recognized a \$154 million loss related to the cancellation of this project. See note 1 — *Plant Cancellation*.
- (2) During 2001, TVA identified certain assets for which the estimated cash flows provided through future rates were likely to be less than recorded book values. Accordingly, a \$3,419 million impairment loss was recognized. See note 1 — *Impairment of Assets*.

- (3) The cumulative effects of \$217 million are due to two accounting changes. Effective October 1, 2002, the Board approved a change in the methodology for estimating unbilled revenue from electricity sales. The impact of this change resulted in an increase in accounts receivable of \$412 million with a corresponding cumulative effect gain for the change in accounting for unbilled revenue. In addition, TVA adopted SFAS No. 143, *Accounting for Asset Retirement Obligations*, which resulted in a cumulative effect charge to income of \$195 million, a corresponding additional long-term liability of \$734 million, an increase in assets of \$745 million, and an increase in accumulated depreciation of \$206 million. See note 1 — *Accounting Changes*.

**LONG-TERM OBLIGATIONS**  
(in millions)

	September 30		
	2003	2002	2001
<u>Statutory indebtedness</u>			
Long-term debt, including current maturities .....	\$ 22,795	\$ 21,763	\$ 22,359
<u>Other obligations</u>			
Capital leases .....	265	318	337
Lease/leaseback commitments .....	1,837	862	452
Deferred revenue .....	47	—	—
Total other obligations .....	<u>2,149</u>	<u>1,180</u>	<u>789</u>
Total long-term obligations .....	<u>\$ 24,944</u>	<u>\$ 22,943</u>	<u>\$ 23,148</u>

**COMPARATIVE THREE-YEAR DATA  
STATISTICAL AND FINANCIAL SUMMARIES**

	For the years ended September 30		
	2003	2002	2001
<b>Sales (millions of kWh) <sup>(a)</sup></b>			
Municipalities and cooperatives .....	130,769	128,600	129,760
Industries directly served .....	27,756	26,478	23,306
Federal agencies and other .....	3,009	3,579	5,967
Total sales .....	<u>161,534</u>	<u>158,657</u>	<u>159,033</u>
<b>Operating revenues (millions of dollars) <sup>(a)</sup></b>			
Electric			
Municipalities and cooperatives .....	\$ 5,974	\$ 5,856	\$ 5,908
Industries directly served .....	781	732	659
Federal agencies and other .....	120	120	226
Other .....	77	88	102
Total revenues .....	<u>\$ 6,952</u>	<u>\$ 6,796</u>	<u>\$ 6,895</u>
Electric revenue per kWh (cents)	4.26	4.23	4.27
<b>Winter net dependable generating capacity (megawatts)</b>			
Hydro <sup>(b)</sup> .....	5,758	5,660	5,677
Fossil <sup>(c)</sup> .....	15,469	15,463	15,050
Nuclear units in service .....	5,776	5,751	5,715
Combustion turbine <sup>(d)</sup> .....	4,655	4,643	3,923
Total capacity <sup>(e)</sup> .....	<u>31,658</u>	<u>31,517</u>	<u>30,365</u>
<b>System peak load (megawatts)—summer</b> .....	28,530	29,052	27,368
<b>System peak load (megawatts)—winter</b> .....	29,866	26,061	27,163
<b>Percent gross generation by fuel source</b>			
Fossil .....	60%	63%	64%
Hydro .....	11%	6%	6%
Nuclear .....	29%	30%	29%
Combustion turbine .....	NM	1%	1%
<b>Fuel cost per kWh (cents)</b>			
Fossil .....	1.43	1.39	1.32
Combustion turbine .....	7.61	4.65	6.07
Nuclear .....	0.39	0.41	0.44
Aggregate fuel cost per kWh net thermal generation .....	1.14	1.11	1.08
<b>Fuel data</b>			
Net thermal generation (millions of kWh) .....	134,931	141,272	146,806
Billion Btu .....	1,391,933	1,458,367	1,505,504
Fuel expense (millions of dollars) .....	1,534	1,564	1,588
Cost per million Btu (cents) .....	110.21	107.25	105.47
Net heat rate, fossil only .....	10,316	10,323	10,255



## Notes

- (a) Sales and revenues have been adjusted to exclude certain sales to other utilities and remove interdivisional sales.
- (b) Includes 405 megawatts of dependable capacity from the U.S. Army Corps of Engineers projects on the Cumberland River system and 331 megawatts from four hydroelectric plants owned by TAPOCO, Inc., a subsidiary of Alcoa, Inc.
- (c) Includes 440 megawatts of capacity from a power purchase agreement under which TVA has contracted with Choctaw Generation, L.P., for power from a lignite-fired generation plant in Chester, Mississippi.
- (d) As of September 30, 2003, includes twenty-four 85 megawatt units subject to lease/leaseback arrangements.
- (e) Total summer NDC for 2003, 2002, and 2001 was approximately 30,743 megawatts, 30,477 megawatts, and 29,405 megawatts, respectively.

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") explains the results of operations and general financial condition of TVA. In this MD&A, TVA's future outlook is discussed as well as its results of operations, both operational and financial. The operational results give an overview of the performance of TVA's physical assets during 2003 and discuss the changes in TVA's results of operations for 2003, 2002, and 2001. The MD&A then discusses TVA's liquidity and capital resources, significant balance sheet changes, critical accounting policies and estimates, and new accounting pronouncements. Finally, TVA's competitive and regulatory environment and business strategy are discussed as well as subsequent events and various uncertainties that could affect future results of operations. The MD&A should be read in conjunction with the Financial Statements.

### Outlook

TVA's current load forecast through 2005 reflects an average annual energy growth rate of 1.9 percent. Numerous factors, such as weather conditions and the health of the regional economy, could cause actual results to differ materially from TVA's forecasts. The TVA Economic Outlook is a major driver of the sales forecast. The health of the regional economy can be measured in three ways. Generally, population is most important for residential sales, employment for commercial sales, and regional gross domestic product for manufacturing sales. The growth rates through 2005 from the TVA Economic Outlook are:

	<b>Range of Forecast</b>		
	<b>High</b>	<b>Medium</b>	<b>Low</b>
Regional Gross Domestic Product	4.2%	3.6%	1.6%
Total Nonfarm Payroll Employment	2.2%	1.7%	-0.4%
Total Population	1.5%	1.1%	0.1%

Weather forecast is based on historical averages.

For additional information on TVA's longer-term future outlook, see "TVA and Competition" and "Business Strategy" — "Strategic Plan" below.

Two bills were introduced into Congress in 2003 that called for expanding and restructuring the TVA Board, one by Representative Cooper (D-TN) and a similar one by Senator Frist (R-TN). These bills would create a nine-member, part-time Board that would, among other things, establish long-range goals and policies for TVA, approve TVA's annual budget, determine electricity rates, and appoint a Chief Executive Officer ("CEO") who would manage TVA's day-to-day operations. Neither bill became law in the first session of this Congress. In order for either bill to become law, it must be approved by both the House and Senate and signed by the President.

In addition, during the last weeks of the first session of Congress, the proposed Energy Policy Act of 2003 ("Energy Bill") was under active consideration. It was reported by the Conference Committee and approved by the House of Representatives. In the Senate, a vote to invoke cloture on the Energy Bill failed, and the bill did not become law in the first session of this Congress.

Among other things, the Energy Bill would (1) similar to the Frist bill, convert TVA's Board of Directors into a part-time Board of nine members serving sequenced five-year terms and create a new position of CEO to manage TVA's day-to-day operations, (2) authorize FERC to review TVA's transmission rates and terms and conditions of service to determine whether they are comparable to those TVA imposes on itself and whether they are unduly discriminatory, and (3) authorize FERC to order refunds if the rates charged by TVA and other nonjurisdictional entities on wholesale electricity transactions for a term of 31 days or less are not just and reasonable. In addition, the Energy

Bill contains some unclear language that might be interpreted as inadvertently repealing the Anti-Cherry-picking Provision (as defined in “*TVA and Competition*” below). TVA does not believe that Congress intended for the Energy Bill to repeal the Anti-Cherry-picking Provision, and the Conference Committee leader of the House of Representatives has stated in a floor colloquy that no such repeal was intended. See “*TVA and Competition*” below.

It is difficult to predict whether the bills discussed above will become law in the future and what their impact would be on TVA.

## **Results of Operations**

### *Operational Results*

#### Generation

TVA prepares a power supply plan, which is issued semi-annually, to optimize the use of generation assets to meet projected loads, and to ensure system reliability. This plan considers historical seasonal weather and hydro power availability information, projected load growth, expected generation asset performance, and market price forecasts. This plan is also a key element in the planning of generation asset outages. The plan is updated monthly to reflect factors such as near term weather forecasts, actual rainfall effects on hydro electric power, and generation asset availability, including outage schedule revisions.

During 2003, asset availability was about four percent less than planned. In addition, a fire at the Watts Bar Hydroelectric Plant made the five units at this site unavailable for over half the year. Two generator failures at the Cumberland Fossil Plant caused extended forced outages which accounted for about half of the shortfall in planned availability. Other events such as three units at the Wilson Hydroelectric Plant being out of service for approximately 2,000 hours each for generator rotor inspections, the steam generator outage at the Sequoyah Nuclear Plant exceeding schedule, and an air preheater failure at the Paradise Fossil Plant also contributed to lower than anticipated power generation. Consequently, these outages resulted in lower fuel expense of \$32 million but higher purchased power expense of approximately \$113 million as compared to the previous year (see “*2003 Compared to 2002*” — “*Operating Expenses*” below).

This less than planned availability of certain generating units was mitigated by better than planned generation performance by other assets. Sequoyah Unit 1 ran continuously between planned refueling outages prior to its planned outage. Nine fossil plants set continuous TVA run records and Bull Run and Johnsonville Fossil Plants exceeded planned generation by approximately 17 percent and 26 percent, respectively. Due to above average rainfall in the Valley during 2003, hydroelectric plants also had better than forecasted generation. In addition, TVA rescheduled several of its planned outages to 2004 to offset the less than planned generation.

#### Transmission

In 2003, the Transmission/Power Supply organization set new records in reducing the frequency and duration of customer outages. Power was delivered with 99.999 percent reliability for the fourth straight year. Also during the year, TVA built nearly 140 miles of new transmission lines and 34 new delivery points to improve system reliability. TVA also continued to pursue advances in technology research, including a recent partnership with the DOE at Oak Ridge National Laboratory to develop transmission lines that can carry more electricity using existing rights-of-way.

To further ensure grid reliability, TVA works closely with independent generators to ensure compatibility with the transmission system, develop and implement consistent operating procedures, and minimize practices that can result in interrupted service.

### *Financial Results*

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

**Summary Statements of Income**  
(in millions)

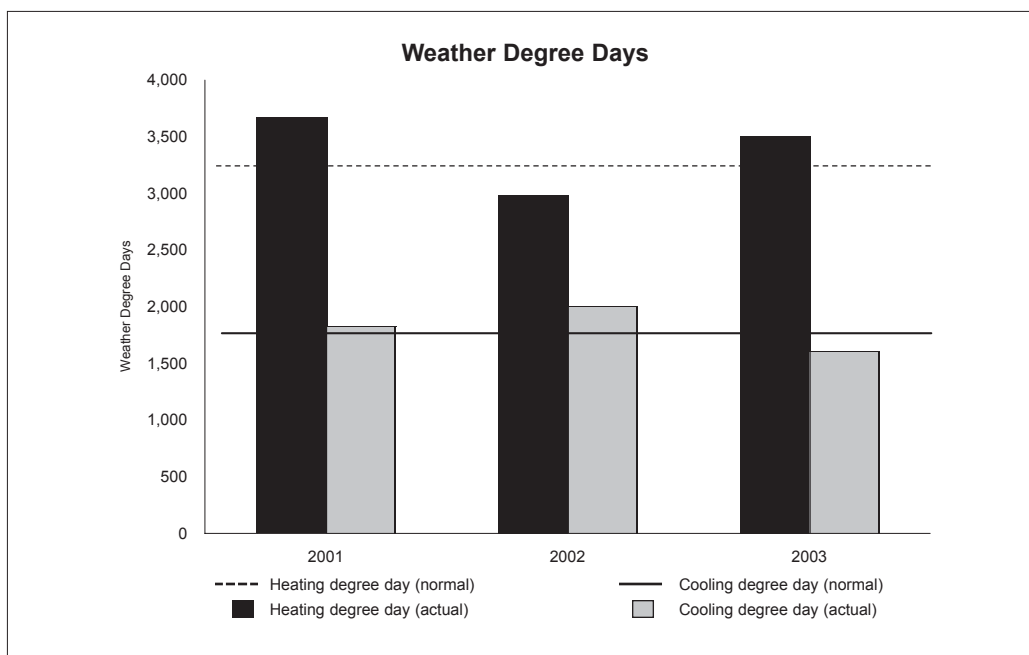
	<u>2003</u>	<u>2002</u>	<u>2001</u>
Operating revenues . . . . .	\$ 6,952	\$ 6,796	\$ 6,895
Operating expenses . . . . .	<u>(5,375)</u>	<u>(5,147)</u>	<u>(5,402)</u>
Operating income . . . . .	1,577	1,649	1,493
Other income, net . . . . .	12	7	248
Loss on plant cancellation/asset impairment . . . . .	–	(154)	(3,419)
Interest expense, net . . . . .	<u>(1,350)</u>	<u>(1,429)</u>	<u>(1,633)</u>
Income (loss) before cumulative effects of accounting changes . . . . .	239	73	(3,311)
Cumulative effects of accounting changes . . . . .	<u>217</u>	<u>–</u>	<u>–</u>
Net income (loss) . . . . .	<u>\$ 456</u>	<u>\$ 73</u>	<u>\$ (3,311)</u>
Sales (millions of kWh) . . . . .	161,534	158,657	159,033
Heating degree days . . . . .	3,505	2,978	3,671
Cooling degree days . . . . .	1,602	1,999	1,830

*2003 Compared to 2002*

Net income for 2003 was \$456 million, compared with net income of \$73 million for 2002. The increase was primarily due to two noncash accounting changes implemented during the first quarter of 2003. These accounting changes included a \$412 million gain related to a change in accounting for unbilled revenue and a \$195 million charge related to a change in accounting for asset retirement obligations (see note 1 — *Cost-Based Regulation and Impact of New Accounting Standards*). In addition, TVA elected during 2002 not to complete a gas-fired combined cycle plant. Accumulated costs of the project totaled \$154 million, which TVA recognized as a loss on plant cancellation during 2002 not present in the current year. Furthermore, net interest expense decreased by \$79 million, or six percent, which was offset by a \$72 million, or four percent, decrease in operating income.

*Operating Revenues.* Operating revenues, consisting of sales of electricity and other power revenues, were \$6,952 million in 2003 and \$6,796 million in 2002, an increase of two percent, including sales of electricity of \$6,875 million in 2003 and \$6,708 million in 2002. The \$167 million, or two percent, increase in sales of electricity related to increased volume primarily related to the impacts of colder winter weather, higher average rates, and increased demand in the industrial sector. The TVA service territory experienced 20 percent less cooling days coupled with 18 percent more heating degree days. Accordingly, total kilowatt-hour sales to customers increased 2.9 billion, or two percent, from 158.7 billion in 2002 to 161.5 billion in 2003. The class of customers who are most affected by weather are residential customers who account for approximately 45 percent of the total municipality and cooperative sales. Directly served industries revenue increased due to higher average prices on interruptible products resulting from changes in product and service mix among customers. Other revenue decreased \$11 million, or 13 percent, from \$88 million for 2002 to \$77 million for 2003. The decrease is attributable to decreased interconnection requests and decreased external business activity.

The pro-forma effects of the change in accounting for unbilled revenue (see note 1 — *Accounting Changes*), if applied retroactively, increased revenue from municipalities and cooperatives by \$81 million for the year ended September 30, 2002. Consequently, if total operating revenues of \$6,952 for the year ended September 30, 2003, are compared to pro-forma operating revenues of \$6,877 for the same period of 2002, the result is an increase of total operating revenues of one percent.



A "Weather Degree Day" is a unit of measure used to express the extent to which temperatures vary from a specific reference temperature during a given period. Companies may use standard reference figures of 80 degrees Fahrenheit for cooling degree days and 60 degrees Fahrenheit for heating degree days. Others sometimes use 65 degree Fahrenheit as the standard reference for both heating and cooling degree days. TVA uses 65 degrees Fahrenheit.

A detailed table of electricity sales and operating revenue is as follows:

	Years ended September 30 (millions of kWh)			Years ended September 30 (millions of dollars)		
	2003	2002	Percent Change	2003	2002	Percent Change
Sales of electricity and operating revenue						
Municipalities and cooperatives	130,769	128,600	1.7%	\$ 5,974	\$ 5,856	2.0%
Industries directly served	27,756	26,478	4.8%	781	732	6.7%
Federal agencies and other utilities	3,009	3,579	(15.9)%	120	120	0.0%
Other revenue	—	—	—	77	88	(12.5)%
Total sales of electricity and operating revenue	<u>161,534</u>	<u>158,657</u>	<u>1.8%</u>	<u>\$ 6,952</u>	<u>\$ 6,796</u>	<u>2.3%</u>

**Operating Expenses.** Total operating expenses, which are composed of fuel and purchased power, operating and maintenance ("O&M"), depreciation, amortization and accretion, and tax-equivalents, increased \$228 million, or four percent, from \$5,147 million in 2002 to \$5,375 million in 2003. Fuel costs decreased \$32 million or two percent. The decrease relates to reduced system availability related to several forced outages at TVA generating plants. The decrease in fuel costs was also related to increased hydro generation as a result of increased rainfall and runoff. Purchased power cost increased approximately \$113 million, or 35 percent. This is primarily due to the impact of several forced outages combined with higher spot market prices. O&M expenses increased \$178 million, or ten percent. O&M base costs increased \$77 million in comparison with the prior year due to several unplanned outages and higher generation expenses. O&M outage costs were \$16 million lower than the prior year due to delays in several planned outages made necessary to meet system requirements because of forced outages. Other O&M costs increased \$135 million in comparison with the prior year due to increased pension expense of \$94 million resulting from actuarial decreases in asset returns and the change in related discount rate, increased benefit costs of \$19 million, increased workers' compensation costs of \$27 million, and increased allowance for inventory obsolescence of \$9 million. O&M projects decreased \$32 million in comparison with the prior year primarily due to costs of feasibility studies of the restart of Browns Ferry Unit 1 which were expensed during 2002. Costs of the restart project are now being

capitalized. Depreciation, amortization, and accretion increased \$35 million from the same period last year due to increased depreciation expense of \$24 million for capital projects placed in service during the year and increased accretion expense of \$11 million related to the adoption of SFAS No. 143, *Accounting for Asset Retirement Obligations*. Accelerated amortization decreased \$66 million in 2003 as compared to 2002 due to complete amortization of certain regulatory assets.

*Other Income.* TVA had net other income of \$12 million in 2003 compared with net other income of \$7 million in 2002. The slight increase in net other income relates to an increase in non-electric business activity.

*Interest Expense.* Net interest expense was \$1,350 million for the year ended September 30, 2003, compared to \$1,429 million for the year ended September 30, 2002. This reduction reflects lower average interest rates and a lower level of total outstanding debt during 2003 compared to 2002. Total outstanding indebtedness, excluding discounts and premiums, as of September 30, 2003, was \$24.9 billion with a blended average interest rate (of long-term and short-term debt) of 5.66 percent; as of September 30, 2002, total debt outstanding, excluding discounts and premiums, was \$25.3 billion with a blended average interest rate of 6.06 percent. The average long-term and short-term interest rates for the year ended September 30, 2003, were 6.22 percent and 1.28 percent, respectively, as compared with 6.53 percent and 1.93 percent for 2002.

*Loss on Plant Cancellation.* Due to changes in the market forecast, TVA elected during 2002 not to complete a gas-fired combined-cycle plant that would have provided 510 megawatts of power beginning in 2004. Accumulated costs of the project totaled \$154 million, which TVA recognized as a loss on plant cancellation.

*Cumulative Effects of Accounting Changes.* The net gain of \$217 million from accounting changes during the first quarter of 2003 resulted from a gain related to a change in accounting for unbilled revenues of \$412 million, partially offset by a change in accounting for asset retirement obligations of \$195 million (see note 1 — *Accounting Changes*).

#### 2002 Compared to 2001

Net income for 2002 was \$73 million compared with a net loss of \$3,311 million for 2001. The \$3,384 million increase in earnings resulted primarily from a loss on impairment of long-lived assets of \$3,419 million in 2001.

*Operating Revenues.* Operating revenues, consisting of sales of electricity and other power revenues, were \$6,796 million in 2002 and \$6,895 million in 2001, including sales of electricity of \$6,708 million in 2002 and \$6,793 million in 2001. The \$85 million decrease in sales of electricity was primarily due to a \$106 million decline in interchange revenue due to lower market prices influenced by new independent power producer generating plants coming on line in 2002. In addition, energy sales to municipalities and cooperatives declined by \$52 million primarily as a result of the warmer winter weather during 2002. There were 19 percent fewer heating degree days in 2002 as compared to 2001. Sales to directly served industries increased by \$73 million from 2001 to 2002 due to changes in product and service mix to certain customers. Accordingly, total kilowatt-hour sales to all customers decreased 0.3 billion kilowatt-hours, from 159.0 billion in 2001 to 158.7 billion in 2002. Other power revenues consist of energy related services and miscellaneous revenues. The \$14 million decrease from 2001 to 2002 is primarily due to a decline in wheeling revenues as a result of a lower level of interchange sales.

A detailed table of electricity sales and operating revenues is as follows:

	Years ended September 30 (millions of kWh)			Years ended September 30 (millions of dollars)		
	2002	2001	Percent Change	2002	2001	Percent Change
Sales of electricity and operating revenue						
Municipalities and cooperatives	128,600	129,760	(0.9)%	\$ 5,856	\$ 5,908	(0.9)%
Industries directly served	26,478	23,306	13.6%	732	659	11.1%
Federal agencies and other utilities	3,579	5,967	(40.0)%	120	226	(46.9)%
Other revenue	—	—	—	88	102	(13.7)%
Total sales of electricity and operating revenue	<u>158,657</u>	<u>159,033</u>	<u>(0.2)%</u>	<u>\$ 6,796</u>	<u>\$ 6,895</u>	<u>(1.4)%</u>

*Operating Expenses.* Total operating expenses decreased \$255 million, or five percent, from \$5,402 million in 2001 to \$5,147 million in 2002. Fuel expense decreased \$13 million due to a three percent decrease in generation. Purchased power costs increased as a result of certain accounting reclassifications (see note 12). Additionally, depreciation and amortization expense was \$285 million lower in 2002 reflecting a \$325 million reduction in amortization of regulatory assets, net of increased depreciation expense of \$40 million for capital projects placed in service in 2002. Accelerated amortization of regulatory assets decreased \$164 million from \$230 million in 2001 to \$66 million in 2002 (see “Critical Accounting Policies” — “Amortization Adjustments” below and note 1 — *Cost-Based Regulation*). The decreases in fuel and depreciation were partially offset by an increase in O&M expenses of \$182 million in 2002 over 2001 as a result of increased outage and other costs. Tax equivalent payments increased \$13 million in 2002 due to a higher revenue base in 2001, the measuring year for the 2002 payments.

*Other Income.* TVA had net other income of \$7 million in 2002 compared with net other income of \$248 million in 2001. The 2001 net other income resulted primarily from a purchased power contract settlement in excess of \$200 million.

*Loss on Impairment of Assets/Plant Cancellation.* The net change of \$3,265 million in loss on impairment of assets and plant cancellation is due to actions taken as a result of TVA's periodic financial reviews. In 2001, TVA identified certain assets for which 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 (see note 1 — *Impairment of Assets*).

Due to changes in the market forecast, TVA elected during 2002 not to complete a gas-fired combined-cycle plant that would have provided 510 megawatts of power in 2004. Accumulated costs of the project totaled approximately \$154 million, which TVA recognized as a loss on plant cancellation during 2002.

*Interest Expense.* Net interest expense was \$1,429 million for the year ended September 30, 2002 compared to \$1,633 million for the year ended September 30, 2001. This reduction reflects lower average interest rates and a lower level of total outstanding debt during 2002 compared to 2001. Total outstanding indebtedness, excluding discounts and premiums, as of September 30, 2002, was \$25.3 billion with a blended average interest rate (of long-term and short-term debt) of 6.06 percent; as of September 30, 2001 total debt outstanding, excluding discounts and premiums, was \$25.4 billion with a blended average interest rate of 6.56 percent. The average long-term and short-term interest rates for the year ended September 30, 2002, were 6.53 percent and 1.93 percent, respectively, as compared with 6.72 percent and 4.88 percent for 2001.

## **Liquidity and Capital Resources**

### *Capital Structure*

Primarily 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, through borrowings (subject to a congressionally-mandated \$30 billion limit on the amount of outstanding Evidences of Indebtedness), and through other financing arrangements including lease/leaseback transactions.

TVA is required to pay the U.S. government a return on the appropriation investment in TVA power facilities, plus a repayment of the investment as specified by law. The combined payment for 2003 was \$42 million. Cumulative repayments and return on investment paid by TVA's power program to the U.S. Treasury (“Treasury”) approximate \$3.5 billion on the government's appropriation investment of \$1.4 billion, approximately \$975 million of which TVA has repaid.

TVA's liquidity and capital measurements for its power program and all programs for the years ended September 30 are:

	Power Program			All Programs		
	2003	2002	2001	2003	2002	2001
	(in millions)			(in millions)		
Cash flow from operations	\$ 1,632	\$ 1,347	\$ 1,914	\$ 1,629	\$ 1,344	\$ 1,897
Construction expenditures	1,693	1,231	1,015	1,693	1,230	1,015
Operating cash flow to construction expenditures	0.96x	1.09x	1.89x	0.96x	1.09x	1.87x
Reduction of statutory debt	\$ 380	\$ 120	\$ 610	\$ 380	\$ 120	\$ 610

### Comparative Cash Flow Analysis

TVA's summary cash flows for its power program and all programs for the years ended September 30 are:

	Power Program			All Programs		
	2003	2002	2001	2003	2002	2001
	(in millions)			(in millions)		
Cash provided by/(used in):						
Operating activities	\$ 1,632	\$ 1,347	\$ 1,914	\$ 1,629	\$ 1,344	\$ 1,897
Investing activities	(1,943)	(1,346)	(1,191)	(1,942)	(1,344)	(1,183)
Financing activities	446	57	(732)	446	57	(732)
Net increase (decrease) in cash and cash equivalents	\$ 135	\$ 58	\$ (9)	\$ 133	\$ 57	\$ (18)

### 2003 Compared to 2002—Power Program

Net cash provided by power program operating activities increased \$285 million from 2002 to 2003. The increase relates to increased operating revenues of \$156 million due to colder winter temperatures in comparison with the prior year. Outlays for interest declined \$72 million and other items requiring cash decreased \$50 million primarily due to the receipt of distributor prepayments. Cash margin from power sales and other was offset by a corresponding increase in net fuel and cash paid for purchased power of \$98 million to meet higher demand and replace power lost during unplanned outages. Additionally, there was an increase in cash outlay for O&M costs of \$60 million as a result of several unplanned outages and higher generation expenses. Working capital components increased \$152 million, from \$21 million in 2002 to \$173 million in 2003. This increase resulted from a larger reduction of accounts receivable of \$12 million and an increase in accounts payable and accrued liabilities of \$158 million as opposed to a reduction of these items of \$3 million, partially offset by a larger increase in inventories and other of \$16 million and a smaller increase in accrued interest of \$5 million.

Cash used in investing activities increased \$597 million due to additional expenditures for capital projects of \$462 million primarily related to the Browns Ferry Unit 1 restart and clean air initiatives, an increase in fabrication of nuclear fuel of \$41 million due to timing of enrichment services received, and an increase in investment purchases of \$99 million.

Net cash provided by financing activities increased \$389 million for the year ended September 30, 2003, compared to the prior year. Long-term debt issues increased \$189 million and redemptions of long-term debt decreased by \$1,435 million. Net redemptions of short term debt increased \$1,888 million compared to the prior year. Proceeds of \$256 million from bond call monetizations and proceeds of \$389 million from a qualified technological equipment lease/leaseback were received in 2003 which did not exist in the prior year. Also, payments on lease/leaseback transactions for combustion turbines increased \$5 million.

## 2002 Compared to 2001—Power Program

Net cash provided by power program operating activities decreased \$567 million from 2001 to 2002. The decrease includes a decline in interchange revenue due to lower market prices influenced by new independent power producer generating plants. O&M expenses increased due to planned maintenance and unplanned outages. Funds were also used to pay current liabilities, which declined 24 percent during 2002.

Cash used in investing activities increased \$155 million due to additional outlays for capital projects of \$216 million and additional outlays for fabrication of nuclear fuel of \$52 million, partially offset by a net \$80 million increase in net proceeds from the maturity of long-term notes receivable and other investing activities

Net cash used in financing activities decreased \$789 million from 2001 to 2002 as a result of reduced debt repayments of \$495 million and proceeds from a combustion turbine lease/leaseback of \$320 million, partially offset by an increase in financing costs of \$29 million related to bond issues.

## 2003 Compared to 2002—All Programs

The Statements of Cash Flows-All Programs are substantially the same as the Statements of Cash Flows-Power Program and should be viewed in conjunction with the “*Comparative Cash Flow Analysis*” — “*2003 Compared to 2002 — Power Program*” and the Statements of Cash Flows — Power Program.

## 2002 Compared to 2001—All Programs

The Statements of Cash Flows-All Programs are substantially the same as the Statements of Cash Flows-Power Program and should be viewed in conjunction with the “*Comparative Cash Flow Analysis*” — “*2002 Compared to 2001 — Power Program*” and the Statements of Cash Flows — Power Program.

## Working Capital

At September 30, 2003, TVA's Power Program had negative working capital of \$3,843 million, largely attributable to \$4,416 million in short-term indebtedness. The table below summarizes the components of working capital and short-term debt. It is TVA's cash management policy to use cash provided by operations as well as Discount Notes to meet current obligations, and TVA plans to continue to use such financing instruments as long as short-term interest rates remain favorable and interest coverage levels are met. TVA also looks for opportunities to use alternative financing instruments and agreements to increase cash flows. See discussions of “*Discounted Energy Units*” and “*Prepayment of Energy Services*” below.

	Power Program			All Programs		
	2003	2002	2001	2003	2002	2001
	(in millions)			(in millions)		
Current assets	\$ 2,053	\$ 1,530	\$ 1,501	\$ 2,054	\$ 1,533	\$ 1,505
Current liabilities	(5,896)	(4,809)	(6,334)	(5,897)	(4,811)	(6,339)
Working capital (deficit)	<u>\$ (3,843)</u>	<u>\$ (3,279)</u>	<u>\$ (4,833)</u>	<u>\$ (3,843)</u>	<u>\$ (3,278)</u>	<u>\$ (4,834)</u>
Discount notes <90 days	\$ 2,080	\$ 3,492	\$ 3,016	\$ 2,080	\$ 3,492	\$ 3,016
Current portion of long-term debt	2,336	—	1,984	2,336	—	1,984
Total short-term debt	<u>\$ 4,416</u>	<u>\$ 3,492</u>	<u>\$ 5,000</u>	<u>\$ 4,416</u>	<u>\$ 3,492</u>	<u>\$ 5,000</u>

## Capital Resources

For purposes of refinancing outstanding debt, TVA continued to access capital markets through cost-effective long-term financing structures and continued to expand its global investor base, as well as its domestic retail investor base. From October 1, 2002, to September 30, 2003, TVA issued \$564 million of electronotes<sup>®</sup> with an average interest rate of 4.49 percent. In addition, in June 2003 TVA issued £150 million (\$245 million) 2003 Series A global bonds which were swapped back to a U.S. dollar interest rate of 4.96 percent and \$500 million 2003 Series B global bonds with an interest rate of 4.70 percent. In August 2003 TVA also issued \$1 billion 2003 Series C global bonds



with an interest rate of 4.75 percent. During this period TVA redeemed \$303 million of electronotes<sup>®</sup> carrying an average interest rate of 5.28 percent. Also during 2003, TVA redeemed other issues totaling \$982 million with an average interest rate of 7.02 percent.

TVA also has access to financing arrangements with the Treasury, whereby the Treasury is authorized to accept a short-term note with the maturity of one year in an amount not to exceed \$150 million. TVA may draw any portion of the authorized \$150 million during the year. Interest is accrued daily and paid quarterly at a rate determined by the Secretary of the Treasury each month based on the average of outstanding obligations of the United States with maturities on one year or less. During 2003, 2002, and 2001 the daily average amounts outstanding were approximately (in millions) \$12, \$5, and \$38, respectively. The outstanding balances were repaid quarterly. See note 6 — *Short-Term Debt*.

#### *Discounted Energy Units*

During October of 2002, TVA introduced the Discounted Energy Units (“DEU”) program as another way of providing value to its customers. Annually for program fiscal years 2003 to 2007, TVA customers may purchase DEUs in \$1 million increments which entitle them to a 0.025 dollar/kilowatt-hour discount on a specified quantity of firm load over a period of years (five, ten, 15, or 20) for each kilowatt-hour in the prepaid block. The remainder of the price of the kilowatt-hours delivered is due upon billing. This program allows customers to use the DEUs to reduce their overall costs and provide a higher return for available cash.

As of September 30, 2003, TVA had entered into sales agreements for 47.25 DEUs totaling \$47.25 million for the 2003 program and sales agreements for 3.5 DEUs totaling \$3.5 million for the 2004 program. TVA is accounting for the prepaid power as unearned revenue in Other liabilities on the September 30, 2003 Balance Sheet and is recognizing revenue, based on the ratio of units of kilowatt hours delivered to total units of kilowatt hours under contract, as electricity is delivered to customers. As of September 30, 2003, over \$3 million has been recorded as revenue.

#### *Prepayment of Energy Services*

TVA and its largest customer, Memphis Light, Gas & Water (“MLGW”), entered into an agreement under which MLGW prepaid TVA \$1.5 billion for the costs of electricity to be delivered by TVA to MLGW over a period of 180 months. In exchange for this prepayment, MLGW will receive a credit on its monthly bills during this period. The City of Memphis issued bonds with net proceeds of \$1.5 billion, the proceeds of which were used to fund this prepay arrangement. The principal and interest on the bonds will be payable from MLGW’s pledged revenues, which includes all of MLGW’s net revenues and certain other funds. The bonds are not obligations of TVA and are not secured by any TVA revenues or property. TVA received proceeds of \$1.5 billion from this transaction in December 2003 and recorded these proceeds as unearned revenue. TVA will recognize revenue based on the ratio of units of kilowatt hours delivered to total units of kilowatt hours under contract as electricity is delivered to customers.

#### *Rate Actions*

On August 27, 2003, the TVA Board approved rate actions to fund certain clean-air improvements for the next ten years and to help retain manufacturing jobs in the Tennessee Valley. The three member board approved a 6.1-percent increase in electric rates. The board also approved a change in the rate structure to more equitably distribute TVA’s costs to serve various customer groups and to make manufacturing rates more competitive with neighboring utilities.

These rate actions became effective beginning with October 2003 wholesale billing months, and together are expected to result in a 7.4 percent increase in wholesale rates for resale to residential and non-manufacturing loads and a two percent decrease in wholesale rates for resale to large manufacturers. Corresponding changes and adjustments were approved for distributor resale rates and for TVA’s rates to directly served customers.

The rate adjustment is expected to provide approximately \$365 million of additional revenue in 2004.

#### *Monetization of Call Options*

During the second quarter of 2003, TVA monetized the call provisions on a \$1 billion public bond issue by entering into a swaption agreement with a third party in exchange for \$175 million. Additionally, in the fourth quarter of 2003, TVA monetized the call provisions on a second public bond issue of \$476 million by entering into a swaption

agreement with a third party in exchange for \$81 million. The swaptions essentially grant a third party the right to exercise the embedded call provision of the applicable bond while TVA continues to pay the holders of the swaptions pursuant to the original bond issuance. The swaptions are recorded in Other liabilities on the September 30, 2003 Balance Sheet and are designated as a hedge of future changes in the fair value of the original call provisions. Under SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, TVA will record the changes in market value of both the swaptions and the embedded calls. These values historically have been highly correlated; however, to the extent that the values do not perfectly offset, any differences will be recognized currently through earnings. These differences amounted to a nearly \$7 million noncash loss for the year ended September 30, 2003.

#### *Lease/Leaseback Transactions*

During the summer of 2002, TVA completed construction of two sets of four combustion turbine ("CT") units which were part of a series of new peaking CT units. Of the financing options available to TVA for these units, long-term lease and leaseback arrangements provided outcomes that were the most economically favorable to TVA. The lease/leaseback for the first set of four units was finalized during the first quarter of 2003 and provided about \$163 million in lease proceeds. The cost of the first lease agreement approximated a full-term implicit rate of just above four percent. The lease/leaseback of the second set of four units was finalized during the third quarter of 2003 and provided about \$162 million in lease proceeds. The cost of the second lease agreement approximated a full-term implicit rate of slightly more than three and one half percent.

In addition to the financing activity for the CTs described above, TVA entered into another financing arrangement late in 2003 related to certain qualified technological equipment ("QTE") consisting of certain transmission equipment and related software. Such QTE was leased to a group of investors and subsequently leased back by TVA under terms and conditions which substantially mirrored those contained in the CT lease/leaseback arrangement. The transaction resulted in financing proceeds of approximately \$389 million. The cost of the QTE lease agreement approximated a full-term implicit rate of slightly less than four percent.

TVA accounted for the respective CT lease proceeds as financing obligations in accordance with SFAS No. 66, *Accounting for Sales of Real Estate*, and SFAS No. 98, *Accounting for Leases*. As of September 30, 2002, the outstanding financing obligations of \$561 million were included in Current liabilities (\$18 million) and Other liabilities (\$543 million), respectively, in TVA's 2002 year-end Balance Sheet. The outstanding financing obligations of \$1,239 million at September 30, 2003 are included in Current liabilities (\$68 million) and Other liabilities (\$1,171 million) in TVA's 2003 year-end Balance Sheet.

#### *Cash Requirements and Contractual Obligations*

In the near term, TVA's \$7.5 billion 2004 budget allocates \$418 million for clean air expenditures, \$366 million for the recovery of Browns Ferry Unit 1, and \$225 million for the reduction of outstanding debt from bonds and notes. In addition, TVA continues to require capital for improvements to facilities to enhance their efficiency and reliability, to extend their useful lives, and to comply with environmental laws and regulations. TVA's total capital expenditures, including the allowance for funds used during construction ("AFUDC"), were approximately \$1,693 million for 2003.

The future planned construction expenditures for property, plant, and equipment additions, including clean air projects and new generation, is estimated to be as follows:

(in millions)	Construction Commitments					
	Actual 2003*	2004	2005	2006	2007	2008
Browns Ferry Unit 1 Restart . . . . .	\$ 381	\$ 366	\$ 414	\$ 410	\$ 166	\$ —
Clean Air Expenditures . . . . .	540	418	300	322	403	330
Transmission Expenditures . . . . .	222	246	250	273	338	357
Other Capital Expenditures . . . . .	550	494	455	510	490	461
Total Capital Projects Requirements	<u>\$ 1,693</u>	<u>\$ 1,524</u>	<u>\$ 1,419</u>	<u>\$ 1,515</u>	<u>\$ 1,397</u>	<u>\$ 1,148</u>

Notes

\* Includes AFUDC of \$74 million. All other projections are based on direct costs excluding AFUDC.

Most of the estimated construction expenditures for TVA for 2004 through 2006 are associated with short lead time construction expenditure projects aimed at the replacement and enhancement of existing facilities and compliance with environmental laws and regulations. Also included are proposed expenditures related to the restart of Browns Ferry Unit 1 and to maintaining and improving the safety and reliability of TVA's electric transmission system as well as proposed expenditures for major projects associated with customer service improvements.

The funds necessary for 2004 to 2006 construction requirements of TVA are expected to be obtained from (1) internal sources, principally net income before noncash items, and (2) external sources, including short-term financing, long-term financing, and prepaid revenue as discussed previously.

TVA conducts a continuing review of its construction expenditures and financing programs. The amounts shown in the table above are forward-looking statements based on a number of assumptions and are subject to various uncertainties. Actual amounts may differ materially based upon a number of factors, including changes in assumptions about system load growth, rates of inflation, total cost of major projects, and availability and cost of external sources of capital, as well as the outcome of the ongoing restructuring in the electric industry.

TVA also has contractual cash obligations, including minimum payments on operating leases, purchase obligations, power purchase contracts, and fuel purchase contracts (see note 9 — *Commitments*). For reporting purposes, TVA defines "contractual cash obligations" as written agreements to purchase goods and services that may or may not be legal commitments but which TVA intends to exercise. TVA expects that cash provided by operating activities and new financing activities will be adequate to meet these estimated cash requirements, as well as capital expenditures. As of September 30, the amounts of contractual cash obligations maturing in each of the next five years and thereafter are shown below:

(in millions)	2004	2005	2006	2007	2008	Thereafter	Total
Debt	\$ 4,416	\$ 2,000	\$ 2,621	\$ 975	\$ 91	\$ 14,772	\$ 24,875
Leases	56	53	48	41	35	92	325
Lease/leaseback transactions	110	84	85	85	89	1,384	1,837
Power purchase obligations	132	146	146	125	110	2,525	3,184
Other obligations	786	621	446	252	85	96	2,286
Fuel purchase obligations	1,212	759	488	332	273	316	3,380
Pension contribution	22						22
Total	<u>\$ 6,734</u>	<u>\$ 3,663</u>	<u>\$ 3,834</u>	<u>\$ 1,810</u>	<u>\$ 683</u>	<u>\$ 19,185</u>	<u>\$ 35,909</u>

#### *Debt*

At September 30, 2003, TVA had outstanding short-term debt of \$2,080 million and long-term debt (including current maturities) at varying maturities and interest rates of \$22,795 million for a total outstanding indebtedness of \$24,875 million (see note 6).

#### *Leases*

Certain property, plant, and equipment are leased under agreements with terms ranging from one to 30 years. Obligations under capital lease agreements in effect at September 30, 2003, total \$36 million annually through 2007, \$33 million for 2008, and an aggregate of \$88 million thereafter, for a total commitment of \$265 million. Of this amount, \$113 million represents the cost of financing. Obligations under non-cancelable lease agreements in effect at September 30, 2003, total \$20 million for 2004, \$17 million for 2005, \$12 million for 2006, \$5 million for 2007, \$2 million for 2008, and \$4 million thereafter for a total commitment of \$60 million. TVA also has cancelable lease agreements in effect at September 30, 2003, which total \$1 million through 2008. Because of the nature of these cancelable lease agreements, they are not included in the commitment table above.

### *Lease/Leaseback Transactions*

Obligations under the lease/leaseback transactions in effect at September 30, 2003, total \$110 million for 2004, \$84 million for 2005, \$85 million for 2006 and 2007, \$89 million for 2008, and an aggregate of \$1,384 million thereafter, for a total commitment of \$1,837 million. Of this amount, \$598 million represents the cost of financing (see notes 7 and 9).

### *Power Purchase Obligations*

TVA has an agreement for the purchase of power from a 440-megawatt, lignite-fired electric generating plant that requires TVA to purchase the plant's output for a 30-year period which began in April 2002. Pricing of the contract includes fixed and variable components with estimated power purchases approximating \$3 billion for the remainder of the contract term. TVA also entered into a long-term power supply agreement with another generator. This commitment extends through May 2007 with a future obligation for demand charges in the amount of \$107 million based on a 500 megawatt contract quantity. Agreements to purchase power are in place with respect to four other projects. These four contracts are for durations of up to 12 years, the earliest of which began in 2000. Payments for the remainder of the terms of the four contracts are estimated to be approximately \$27 million. Cost under these contracts are included in the Statements of Income for the years ended September 30, 2003, 2002, and 2001 as Fuel and purchased power expense and are expensed as incurred.

Under the Public Utility Regulatory Policies Act of 1978, TVA is obligated to purchase power from qualifying facilities. There are currently two independent power producers that qualify under this program, and as a result TVA could be required to take up to 1,600 megawatts of power during certain on-peak hours from these facilities, depending on the amount of power put on the system. Costs associated with these purchases are based on rates as specified in "Attachment A" of the *Dispersed Power Production Guidelines for TVA and the Distributors of TVA Power* as approved annually by the Board.

TVA also has an agreement with the Southeastern Power Administration to receive 405 megawatts of net dependable capacity from the Cumberland River Basin Projects for use in the TVA system. TVA receives a yearly energy allocation of 607,500 megawatt hours which is based on the reserved capacity. Once this allocation is exceeded, TVA is assessed an additional energy charge for the excess generation received based on rates as specified in the *Federal Register*.

### *Other Obligations*

Other obligations totalling \$2.3 billion consist of contracts and purchase orders negotiated as of September 30, 2003, for goods and services primarily related to capital projects as well as other major recurring operating costs. TVA has approximately \$1.9 billion in long-term construction commitments consisting primarily of the purchase of generating assets (including Browns Ferry Unit 1 restart) and emission control equipment. Terms of certain contracts extend into 2023. In addition to construction commitments, TVA is committed to various other contracts for recurring goods and services of \$400 million with terms extending into 2013.

### *Fuel Purchase Obligations*

TVA has approximately \$2.4 billion in long-term fuel purchase commitments ranging in terms of up to six years for the purchase and transportation of coal and approximately \$1.0 billion of long-term commitments ranging in terms of up to 11 years for the purchase of enriched uranium and fabrication of nuclear fuel assemblies.

### *Pension Contribution*

TVA's Board has approved a pension contribution of \$22 million for fiscal year 2004.

## **Significant Balance Sheet Changes**

Total power assets increased \$2,235 million during 2003 primarily due to a net increase in Property, plant, and equipment of \$955 million primarily due to capital expenditures for Browns Ferry Unit 1 restart of \$381 million and projects related to TVA's clean air initiatives of \$540 million. Investment funds increased \$246 million due to gains in the equity market and accounts receivable increased \$339 million primarily due to a prior year adjustment in unbilled accrued accounts receivable on account of a change in methodology of calculating unbilled receivables (see note 1

*Impact of New Accounting Standards and Accounting Changes and Asset Retirement Obligations*). Total liabilities increased \$1,745 million primarily due to alternative financing arrangements of lease/leaseback transactions of \$714 million and \$256 million for call monetizations. In addition, asset retirement obligations increased \$834 million related to the adoption of SFAS No. 143, *Accounting for Asset Retirement Obligations*.

### **Critical Accounting Policies**

TVA prepares its financial statements in conformity with generally accepted accounting principles accepted in the United States of America applied on a consistent basis and, in some cases, the financial statements reflect amounts based on the best estimates and judgment of management, giving due consideration to materiality.

#### *Allowance for Doubtful Accounts*

The allowance for doubtful accounts reflects TVA's best estimate of probable losses inherent in the accounts receivable balance. TVA determines the allowance based on known accounts, historical experience, probability of default, and other currently available evidence. The allowance for doubtful accounts was \$8 million at September 30, 2003, and \$13 million at September 30, 2002.

#### *Allowance for Inventory Obsolescence*

TVA reviews supplies and materials inventories by category and usage on a periodic basis. Each category is assigned a probability of becoming obsolete based on the type of material and usage data. Based on the estimated value of the inventory, TVA adjusts its allowance for inventory obsolescence. The allowance for surplus and obsolete inventory was \$33 million at September 30, 2003, and \$29 million at September 30, 2002.

#### *Asset Retirement Obligations*

In accordance with the provisions of SFAS No. 143, *Accounting for Asset Retirement Obligations*, TVA recognizes legal obligations associated with the future retirement of certain tangible long-lived assets. TVA only records estimates of such disposal costs at the time the legal obligation arises or costs are actually incurred.

#### *Revenue Recognition Policies*

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 the end of the month.

#### *Regulatory Assets and Liabilities*

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 non-regulated entities.

TVA has approximately \$1,861 million of regulatory assets (see note 1 — *Cost-Based Regulation*) along with approximately \$4.1 billion of deferred nuclear units as of September 30, 2003 (see note 1 — *Impairment of Assets* and note 2). In the event that restructuring of the utility industry changes the application of SFAS No. 71, TVA would be required to evaluate such regulatory assets and deferred nuclear units under the provisions of SFAS No. 101, *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.

#### *Actuarial Assumptions*

Net periodic pension, postretirement, and postemployment benefit costs are determined using assumptions as of the beginning of each year. Funded status for each plan is determined using assumptions as of the end of each year. The valuations performed at the end of 2003 were based on actuarial assumptions that were consistent for all of TVA's benefit plans. For 2003, TVA recognized pension expense of about \$41 million, postretirement benefit expense of \$36 million, and postemployment benefit expense of approximately \$90 million.

Effective for the September 30, 2003, measurement date and calculation of the pension and postretirement funded status, the discount rate utilized in the valuation of the obligations was reduced from 7.05 percent to 6.00 per-

cent. The cost of living rate was maintained at 2.3 percent to reflect current market and demographic conditions. Additionally, TVA maintained its assumption related to mortality based on results of an experience study performed during the prior year which underlies the continued use of 1983 mortality tables.

As a result of the changes in actuarial assumptions and other actuarial adjustments, the 2003 projected benefit obligation ("PBO") for pension benefits increased approximately \$1,049 million. The change in the PBO was comprised of a \$198 million increase due to normal operation of the plan (in the form of service cost and interest accruals, etc.), an increase of \$697 million due to the change in discount rate, and an increase of \$154 million due to other actuarial adjustments and experience losses. The changes in assumptions had no effect on pension costs for 2003, 2002, or 2001, but will increase pension expense for 2004 by approximately \$137 million compared to 2003 (see note 8).

As a result of the changes in actuarial assumptions and other actuarial adjustments, the 2003 accumulated projected benefit obligation ("APBO") for postretirement benefits decreased approximately \$117 million. The change in the obligation was comprised of an \$8 million increase due to normal operation of the plan (in the form of service accruals and interest accruals, etc.), an increase of about \$44 million due to the change in discount rate, and a decrease of \$169 million due to other actuarial and experience adjustments. The \$169 million decrease in the obligation was comprised of an actuarial transition adjustment of \$102 million and a favorable experience adjustment related to claims and contributions of \$67 million. The changes in assumptions had no effect on postretirement benefit costs for 2003, 2002, or 2001 but when coupled with favorable experiences related to claims and contributions will decrease postretirement benefits expense for 2004 by approximately \$7 million compared to 2003 (see note 8).

As a result of the changes in actuarial assumptions and other actuarial adjustments, the 2003 projection of ultimate loss related to the workers compensation postemployment benefit obligation was approximately \$27 million greater than expected. The \$27 million increase was recognized as additional expense during 2003 and can be attributed almost entirely to the change in the actuarial assumption related to the discount rate. The changes in assumptions had no effect on postemployment benefits expense for 2002 or 2001 but will decrease postemployment benefits expense for 2004 compared to 2003.

#### *Derivatives*

Effective October 1, 2000, TVA adopted the provisions of SFAS Nos. 133, *Accounting for Derivative Instruments and Hedging Activities*, and 138, *Accounting for Certain Derivative Instruments and Hedging Activities*. Specific derivative contracts consisted of certain currency and interest rate swap agreements (see note 5 — *Commodity Contracts and Foreign Currency and Interest Rate Swaps*). Such contracts qualified for cash flow hedge accounting treatment under SFAS No. 133. Consequently, the effective portion of gains and losses related to these type of contracts is deferred and reported in Accumulated other comprehensive loss with a corresponding adjustment to the derivative's book value until the contracts actually settle. The ineffective portion of the derivatives change in fair value is recognized immediately in the determination of earnings.

TVA entered into other derivative contracts including various purchased option contracts, coal and natural gas contracts, and certain swaption agreements and purchased options related to SO<sub>2</sub> allowances. Hedges entered into in conjunction with these contracts qualify for fair value hedge accounting under SFAS Nos. 133 and 138 with changes in market values deferred and recognized as regulatory assets and/or liabilities in accordance with SFAS No. 71, *Accounting for the Effects of Certain Types of Regulation* (see note 1 — *Cost-Based Regulation*). Such treatment reflects TVA's ability and intent to account for these derivative instruments on a settlement basis for rate-making purposes. The ineffective portion of the derivatives change in fair value is recognized immediately in the determination of earnings.

#### *Amortization Adjustments*

Prior to 2003, annual provisions for amortization of deferral charges were adjusted as necessary in order to achieve certain earnings levels. Such earnings levels were set forth in resolutions adopted annually by the TVA Board of Directors in connection with the rate review process. The targeted earnings levels were based on requirements of the TVA Act and the Basic Resolution.

#### *Normal Purchases and Normal Sales Special Exemption*

A unique characteristic of the electric utility industry is that electricity cannot readily be stored in significant

quantities and, as a result, some contracts to buy and sell electricity afford the buyer some flexibility in determining when to take electricity, and in what quantity, to meet fluctuating demands. These contracts would normally qualify as derivatives, but because electricity cannot be readily stored and an entity engaged in selling electricity is obligated to maintain sufficient capacity to meet the electricity needs of its customers, an option contract for the purchase of electricity qualifies for the normal purchases and sales exemption described in paragraph ten of SFAS No. 133 as amended by SFAS No. 149, *Amendment of Statement 133 on Derivative Instruments and Hedging Activities*, and Derivative Implementation Group (“DIG”) Issue No. C15, *Scope Exceptions: Normal Purchases and Normal Sales Exception for Option-Type Contracts in Electricity* as amended by SFAS No. 149, *Amendment of Statement 133 on Derivative Instruments and Hedging Activities*. Contracts for the sale or purchase of power in future periods that meet the criteria of DIG Issue C15 have been categorized as “normal purchase, normal sales” contracts and are exempted from recognition in the financial statements until power is delivered.

### *Nuclear Decommissioning Costs*

TVA’s current accounting policy for nuclear decommissioning costs recognizes all obligations related to closure and removal of its nuclear units as incurred (see note 1 — *Decommissioning Costs*). TVA measures the liability for closure at the present value of the weighted estimated cash flows required to satisfy the related obligation, discounted at the credit adjusted rate of interest in effect at the time the liability was actually incurred or originally accrued, and subsequently modified to comply with the prevailing accounting provisions. 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 (see note 1 — *Decommissioning Costs* and note 9 — *Contingencies — Decommissioning Costs*).

At September 30, 2003, the present value of the estimated future nuclear decommissioning cost of \$1,510 million was included in Other liabilities, and the unamortized regulatory asset of \$783 million was included in Deferred charges. Under the Nuclear Regulatory Commission’s (“NRC”) regulations, the present value of the estimated future nuclear decommissioning cost amounts to \$937 million. This decommissioning cost estimate is based on NRC’s requirements for removing a plant from service, releasing the property for unrestricted use, and terminating the operating license. The actual decommissioning costs may vary from the derived 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. Utilities that own and operate nuclear plants are required to use different procedures in calculating nuclear decommissioning costs under SFAS No. 143 than those that are used in calculating nuclear decommissioning costs when reporting to the NRC. Accordingly, the two sets of procedures produce different estimates for the costs of decommissioning.

TVA maintains a decommissioning trust fund to provide funding for the ultimate decommissioning of its nuclear power plants. The fund is invested in securities selected to achieve a return in line with overall equity market performance. As of September 30, 2003, the decommissioning trust fund investments totaled approximately \$632 million. This amount is less than the present value of the estimated future decommissioning costs. TVA is closely monitoring the status of its decommissioning trust in light of recent market performance and believes that, over the long term before cessation of plant operations and commencement of decommissioning activities, adequate funds from investments will be available to support decommissioning. TVA’s nuclear power plants are currently authorized to operate until 2013-2035, depending on the unit, with an additional 20 years of operation at each plant in the event of license renewals (see “*Properties*” — “*Nuclear Power Program*” — “*Operating License Extensions*” in Part I).

### **Critical Accounting Estimates**

The preparation of financial statements requires TVA to estimate the effect of various matters that are inherently uncertain as of the date of the financial statements. Although the statements are prepared in conformity with generally accepted accounting principles, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities, and the amounts of revenue and expenses reported during the reporting period. Each of these estimates varies in regards to the level of judgment involved and its potential impact on TVA’s financial results. Estimates are deemed critical when a different estimate could have reasonably been used or where changes in the estimate are reasonably likely to occur from period to period and would materially impact TVA’s financial condition, changes in financial condition or results of operations. TVA’s critical accounting policies are discussed in “*Critical Accounting Policies*” above and in note 1.

## New Accounting Pronouncements

### *Asset Retirement Obligations*

Effective October 1, 2002, TVA adopted SFAS No. 143, *Accounting for Asset Retirement Obligations*, which requires the recognition of a liability, and capitalization of the associated asset retirement cost as part of the carrying amount of the long-lived asset, for “legal obligations” associated with the retirement of long-lived assets that result from the acquisition, construction, development, and/or normal operation of long-lived assets. TVA identified and reviewed all relevant information in the determination of its potential asset retirement obligations (“ARO”). TVA identified three categories of AROs which represent legal obligations of TVA under the requirements set forth in the standard. Costs associated with retirement of coal-fired (including ash/waste ponds) and gas/oil turbine generating plants are being expensed as period costs while costs associated with retirement of nuclear generating plants are receiving SFAS No. 71, *Accounting for the Effects of Certain Types of Regulation*, treatment based on the partially funded status of the nuclear decommissioning obligation.

**Nuclear Generating Plants.** In prior years, TVA had already recognized a decommissioning liability related to its nuclear generating plants in accordance with NRC requirements. This previously recorded liability represents the pre-SFAS No. 143 obligation for TVA’s nuclear plant AROs. The adoption of SFAS No. 143 resulted in a change in the methodology of quantifying this nuclear decommissioning obligation in accordance with the new accounting standard. TVA has increased the nuclear decommissioning liability on the balance sheet to reflect the new methodology, but has retained its regulatory accounting treatment of capturing all changes in the liability, investment funds and certain other deferred charges as changes in the regulatory asset instead of recording these items on the income statement.

**Coal-Fired Generating Plants.** The activities associated with coal plant retirement include plant shutdown, securing the physical property, closure of storage and/or waste areas (including ash/waste ponds), maintenance of stack lights, security patrols, and measures to contain asbestos and other hazardous materials from release into the environment. The estimated costs of these activities have been included in the calculation of TVA’s coal plant AROs. Certain ash ponds and waste areas have estimated useful lives that are independent of the lives of the coal plants themselves. Accordingly, these specific ash/waste pond areas were quantified as separate AROs based on their specific estimated useful lives.

**Gas/Oil Turbine Generating Plants.** The activities associated with gas and oil turbine plant retirement include annual operating costs for site security, lighting, powerhouse and grounds maintenance, containment of asbestos, paint, and other materials, and groundwater monitoring. The estimated costs of these activities have been identified to be included in the calculation of TVA’s combustion turbine plant AROs.

For each ARO identified, TVA calculated the net present value of the obligation as of the current period, the original and incremental cost of the long-lived asset at the time of initial operation, the cumulative effect of depreciation on the adjusted asset base, and accretion of the liability from the date of initial operation to the current and pro-forma periods.

The effect of the adoption of SFAS No. 143 during the first quarter of 2003 includes a restated cumulative effect charge to income of \$195 million (an increase of \$17 million over the \$178 million previously reported) (see note 11), a corresponding additional long-term liability of \$734 million (an increase of \$17 million over the \$717 million previously reported), and an increase in assets of \$745 million and accumulated depreciation of \$206 million (no change in the amounts previously reported). During 2003, a layer was added to the nuclear plant ARO category for the addition of steam generators at the Sequoyah Nuclear Plant. The result was an increase to the original cost of nuclear plant assets of \$9 million and a corresponding increase in nuclear plant retirement obligation of \$9 million at September 30, 2003.

### *Energy Trading*

Effective October 1, 2002, TVA adopted Emerging Issues Task Force (“EITF”) Issue No. 02-3, *Issues Related to Accounting for Contracts Involved in Energy Trading and Risk Management Activities*. EITF No. 02-3 rescinded EITF No. 98-10, *Accounting for Contracts Involved in Energy Trading and Risk Management Activities*, and reached two general conclusions:

- Energy trading contracts that do not meet the definition of a derivative under SFAS No. 133 should not be



marked to fair market value, and

- Revenues should be shown in the income statement net of costs associated with trading activities, whether or not the trades are physically settled, if the derivative instruments are held for trading purposes. In addition, entities may simply choose to designate and report transactions on a net basis for ease of administration even though such transactions do not meet the strict definition of trading activities.

As a matter of policy and practice, TVA does not engage in trading activities as defined by the EITF as “active and frequent buying and selling...with the objective of generating profits on short-term differences in price.” Rather, TVA makes purchases and sales decisions based on projected TVA system demand and supply positions. Under certain circumstances, TVA may find that it has purchased power commitments from others that turn out to be in excess of TVA system needs due to changing operating conditions (such as weather, TVA plant availability, transmission constraints, etc.) or changing market conditions and TVA ultimately sells that surplus power to exchange power customers. Conversely, TVA also may need to purchase power from others to meet pre-existing sales commitments to others due to similar changing operating or economic conditions that impact the availability or deliverability of TVA system resources.

TVA does not differentiate between those transactions that are entered into based on changing operating conditions and those entered into based on changing market conditions. Accordingly, TVA refers to all of these types of transactions as “displacement purchases and sales.” These displacement purchases and sales are usually transacted within days or hours of each other. In very limited situations, a purchase and sale transaction might be entered into at essentially the same time for the same quantity and for the same delivery time. For instance, at the time that a sales transaction is made from system resources at a certain price based upon an expected system cost projection, a purchase opportunity from the market for the system might also be immediately available that is priced less than or equal to the expected system cost. In that situation, the purchase transaction might be made to immediately support the system in meeting the initial sales commitment to mitigate the risk exposure due to the uncertainty in predicting the expected system cost.

TVA reports its displacement purchases and sales on a net basis in the Federal agencies and other revenue line item on the Income Statements. During 2003, 2002, and 2001, TVA had net gains from displacement transactions of \$7.0 million, \$5.7 million, and \$16.7 million, respectively. In addition, the total volume of displacement transactions during 2003, 2002, and 2001 was 1,240,325 megawatt-hours, 1,357,836 megawatt-hours, and 2,304,031 megawatt-hours, respectively. As a result of adopting this new standard, revenue and purchased power expense in prior periods have been restated to conform to the current year presentation. There was no impact on net income (loss) in any period presented.

As a result of adopting this new standard, revenue and purchased power expense in prior periods have been restated to conform to the current year presentation.

<b>(in millions)</b>	<u><b>2003</b></u>	<u><b>2002</b></u>	<u><b>2001</b></u>
Total operating revenues before reclassification . . . . .	\$ 6,988	\$ 6,831	\$ 6,995
Adoption of EITF No. 02-3 . . . . .	(36)	(35)	(100)
Total operating revenues, as adjusted . . . . .	<u>\$ 6,952</u>	<u>\$ 6,796</u>	<u>\$ 6,895</u>
Total operating expenses before reclassification . . . . .	\$ 5,411	\$ 5,182	\$ 5,502
Adoption of EITF No. 02-3 . . . . .	(36)	(35)	(100)
Total operating expenses, as adjusted . . . . .	<u>\$ 5,375</u>	<u>\$ 5,147</u>	<u>\$ 5,402</u>

*Other New Accounting Standards*

Effective July 1, 2003, TVA adopted SFAS No. 149, *Amendment of Statement 133 on Derivative Instruments and Hedging Activities*. The statement clarifies under what circumstances a contract with an initial net investment meets the characteristic of a derivative as discussed in SFAS No. 133. In addition, it clarifies when a derivative contains a financing component that warrants special reporting in the statement of cash flows. The statement is effective for contracts entered into or modified after June 30, 2003, and should be applied prospectively. The adoption of SFAS No. 149 has had no effect on TVA as it currently reports these types of transactions in accordance with the standard.

Effective January 1, 2003, TVA adopted Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*. The interpretation elaborates on the existing disclosure requirements for most guarantees such as standby letters of credit. It also clarifies that at the time a company issues a guarantee, the company must recognize an initial liability for the fair value, or market value, of the obligations it assumes under that guarantee and must disclose that information in its interim and annual financial statements. The initial recognition and initial measurement provisions apply on a prospective basis to guarantees issued or modified after December 31, 2002, regardless of the guarantor's fiscal year-end. At this time, TVA does not have any guarantees meeting the criteria of the interpretation.

In January 2003, the Financial Accounting Standards Board ("FASB") published Interpretation No. 46, *Consolidation of Variable Interest Entities*. This interpretation explains how to identify variable interest entities and how an enterprise assesses its interests in a variable interest entity to decide whether to consolidate that entity. It also clarifies the application of Accounting Research Bulletin No. 51, *Consolidated Financial Statements*, to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The interpretation applies to nonpublic enterprises and becomes effective for TVA beginning October 1, 2005. At this time, TVA is in the process of evaluating the requirements of this statement but does not know whether the impact of implementation of this standard will be material to its results of operations or financial position.

At its August 13, 2003 meeting, the EITF ratified its consensus on Issue No. 03-11, *Reporting Gains and Losses on Derivative Instruments That Are Subject to FASB Statement No. 133, Accounting for Derivative Instruments and Hedging Activities, and Not Held for Trading Purposes*. The EITF reached a consensus on Issue No. 03-11 that the determination of whether realized gains and losses on physically settled derivative contracts "not held for trading purposes" should be reported in the income statement on a gross or net basis is a matter of judgment that depends on relevant facts and circumstances. Consideration of the facts and circumstances should be made in the context of the various activities of the entity rather than solely on the terms of the individual contracts. The adoption of EITF Issue No. 03-11 is not expected to have a material effect on TVA's results of operations or financial position.

## **TVA and Competition**

By the late 1990's, the nation appeared to be well on its way to restructuring both wholesale and retail electricity markets. During the past three years, however, market and regulatory events have increased the uncertainty about the ultimate outcome and timing of electricity market restructuring in the United States. Despite the current uncertainty, however, TVA believes that wholesale competitive electricity markets are likely to continue to evolve.

Among the early initiatives that have begun to promote industry competition is the Energy Policy Act of 1992 (the "Energy Act"). The Energy Act and related FERC orders already allow competitors of a utility to access that utility's transmission system to sell electricity to other electric power suppliers and wholesale customers. In TVA's case, some special provisions apply.

Under the TVA Act, subject to certain minor exceptions, TVA may not currently enter into contracts that would have the effect of making it or the distributors of its power a source of power supply outside a statutorily specified area. However, under a special provision of the Energy Act (the "Anti-Cherry-picking Provision"), TVA is not required to provide its competitors access to its transmission system to transmit power for consumption within the area that TVA or the distributors of its power may serve. Thus, while TVA may not sell power outside its current service area, TVA cannot be compelled to permit its competitors to use its transmission system to sell power within TVA's service area.

In the future, it appears likely that the current law that serves to limit competition between TVA and its competitors will change. In the past five years, numerous bills have been introduced in Congress designed to restructure the electric utility industry and mandate or promote competition in the industry. Within the context of restructuring legislation, some of the key issues for TVA are: (1) whether TVA rates and transmission system will be regulated by FERC, (2) whether TVA and the distributors of TVA power will be able to sell power outside the TVA service area and whether TVA will be required to provide its competitors access to its transmission system to transmit power for consumption within the TVA service area, (3) whether Congress will attempt to shorten the terms of TVA's present wholesale power contracts with the distributors of its power, and (4) whether TVA will have the right to recover its power system investments that would no longer be economical under full and open market competition (stranded costs).

In the spring of calendar year 2000, TVA, the Tennessee Valley Public Power Association ("TVPPA"), an association comprising all of the distributors of TVA power, and the Tennessee Valley Industrial Committee ("TVIC"),

an organization representing industries that TVA directly serves, reached consensus on draft legislation regarding the relationships between TVA and its customers in a restructured electric power industry. The draft legislation, as revised by TVA, TVPPA, and TVIC in fiscal year 2003, provides for: (1) simultaneous repeal on the effective date of the restructuring legislation of the Anti-Cherry-picking Provision and the provision that limits the area in which TVA and the distributors of TVA power can be a source of power supply, (2) a distributor option to gradually take up to a maximum of 30 percent partial requirements from other suppliers with advance notice to TVA, (3) new limitations on TVA retail sales in TVA's current service area, (4) stranded cost recovery, (5) FERC regulation of TVA's transmission service rates and terms and conditions of service to assure that those which TVA charges and imposes on other users of its system are comparable to those which TVA charges and imposes on itself, (6) TVA's subjection to antitrust laws (with the exception of monetary damages and attorney's fees), (7) as elected by individual distributors, reduction in TVA's existing regulatory role with respect to distributors, and (8) an express statutory limitation on new TVA generation to that needed to meet demand within the current TVA service area.

On July 31, 2002, FERC issued its Notice of Proposed Rulemaking on "*Remedying Undue Discrimination and Open Access Transmission Service and Standard Electricity Market Design*," Docket No. RM01-12-000, which, if ultimately implemented, would have far-reaching effects on electricity markets across the nation. This proposed rule-making (known as the "SMD NOPR") prompted a debate about the merits of the proposal itself, as well as the federal intrusion into areas—such as resource adequacy—that have historically been determined by the states. Responding to the criticism, on April 30, 2003, FERC issued a white paper indicating that it was willing to allow regions considerably more flexibility on the timing of wholesale market implementation and on particular issues, such as granting native-load customers preferential access to the transmission system.

Based on extensive analysis of potential future market conditions, TVA believes its relative cost of power will meet or be lower than average market prices in most, but not all, scenarios. Given that TVA's generation mix has high fixed but low variable costs, TVA believes that it would be vulnerable to revenue losses in a world of low gas prices and high regional reserve margins, for example. In addition, TVA currently sets its prices for distributors based on TVA's system-average costs. If continued under competition, rate averaging would allow competitive suppliers to cherry pick customers who cost less than the system average to serve.

In the near-term, TVA's strategic challenge is to accelerate its preparation for a more competitive future. At the same time, TVA must continue to supply all energy requirements for its distributors until legislation opening up electricity markets in the Valley is enacted. As market conditions change in the coming years, TVA's strategic planning process will continue as an iterative and adaptive process. Concepts outlined in the plan will be applied to TVA's power supply planning process and its performance planning and budgeting process. TVA conducts ongoing power supply planning to forecast growth in the region's power needs and evaluate the best options for meeting those needs. The performance planning process focuses primarily on the next fiscal year and includes detailed performance plans and budgets. Taken together, these three planning processes support the effective management of TVA's operations today and for the long-term. See "*Business Strategy*" — "*Strategic Plan*" below.

## **Regional Transmission Organizations**

While not generally subject to FERC jurisdiction, TVA is voluntarily seeking ways to meet FERC's objective to improve regional transmission operations in a manner consistent with TVA's responsibilities under the TVA Act. TVA is moving forward on two initiatives.

First, in 2002, TVA and Associated Electric Cooperative, Inc. ("AECI"), of Springfield, Missouri, took the initial steps to form the Public Power Regional Transmission Grid ("PPRTG"). The PPRTG is a mechanism for public-power providers to participate in regional transmission arrangements consistent with the objectives of FERC Order No. 2000, while remaining within the framework of their public service missions. The PPRTG would initially operate more than 25,000 miles of transmission lines within a ten-state region, and could grow with additional members. In 2003, TVA assumed responsibility as the reliability authority for AECI and two other public-power providers.

TVA also entered into memoranda of understanding with three other transmission providers, Southern Company, Entergy, and the Midwest Independent Transmission System Operator ("MISO"), to establish a framework for developing formal regional coordination agreements that will help provide seamless transmission services through a large portion of the Eastern Interconnection transmission grid. The memoranda facilitate creating broader solutions to regional transmission operations issues while preserving public power's unique public service mission. TVA has also executed an agreement with MISO and the PJM Interconnection, L.L.C., to explore seams issues.

## Business Strategy

### *TVA's Six Strategic Objectives*

TVA's strategic objectives encompass excellence in operating performance, leadership in economic development, and sensitivity to its stakeholders' needs. Critical success factors have been developed and targets established to reach performance goals. TVA's Strategic Objectives are:

*Improve life in the Tennessee Valley through integrated management of the river system and environmental stewardship.* TVA is committed to environmental stewardship. TVA 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,

*Meet customers' needs with affordable, reliable electric power.* Electric power is the fuel of TVA's regional economy, and TVA's power system is growing and improving to keep pace with the ever-increasing demand. In step with America's energy policy for the 21st century, TVA is prepared to play a vital role as a public power provider, dedicated to public service and providing competitively priced electricity in an increasingly open energy marketplace,

*Demonstrate leadership in sustainable economic development in the Valley.* TVA will continue to work with the communities it serves in order to help attract and retain new and better jobs for the people of the Valley,

*Continue the trend of debt reduction.* TVA is committed to reducing its level of total financing obligations in order to create more financial flexibility for the future business environment,

*Reduce TVA's delivered cost of power relative to the market.* The bottom line for TVA is the creation of value for the public. TVA will be responsive to the marketplace through its initiatives for promoting innovation and continuous improvement. TVA will generate more for less for the good of many, and

*Strengthen working relationships with all of TVA's stakeholders.* TVA will strengthen its relationships with Valley residents, communities, and businesses; with customers and suppliers; and with leaders at all levels of government.

*Key Indicators and Objectives*

↑ = Better than target      → = On target      ↓ = Worse than target					
Measure	Strategic Objective	Indicator	Status as of September 30, 2003	2003 Actual	2003 Target
Customer	Meet customers' needs with affordable, reliable electric power	Customer satisfaction on ease of doing business and issue resolution (percent)	↑	81.1	80.0
	Demonstrate leadership in sustainable economic development in the Valley	Jobs added or retained in the Valley, capital investment leveraged, and quality-job measure (index)	↑	119	100
Operations	Improve life in the Valley through integrated management of the river system and environmental stewardship	Watershed water quality (number of watersheds rated good to fair out of a maximum of 611)	↑	519	515
	Meet customers' needs with affordable, reliable electric power	Generation availability (ratio of actual to plan)	↓	0.958	1.000
Financial	Reduce TVA's delivered cost of power relative to the market	Delivered cost of power (cents/kWh)	↑	4.11	4.12
	Continue trend of debt reduction	Relationship of debt to capacity (\$/kW)	→	808	808
	Meet customers' needs with affordable, reliable electric power	Manage production costs (\$/MWh)	↑	8.57	8.58
People	Strengthen working relationship with all of TVA's stakeholders	All injury rate (injuries/hours worked)	↓	2.66	1.92

*Strategic Plan*

To prepare for a more competitive electricity market, TVA has implemented a strategic planning process that analyzes how the new market may function, what competitive pressures TVA will face, and how TVA must prepare now for success in the future. More specifically, the process focuses on what TVA needs to do in order to preserve TVA's core mission of providing low-cost power, promoting economic prosperity in the Valley, and exercising stewardship while remaining financially viable in a competitive market.

These challenges are not unique to TVA. Fiscally and strategically, the federal government, corporations, and the utility industry are dealing with cost pressures, competition for customers, the need to develop new technologies, and the need to efficiently manage all resources.

TVA's strategic plan is based on a rigorous analysis of possible market conditions and gives a qualitative basis for better decision-making as TVA moves into a world where laws restricting competition will be modified. The plan is based on the most thorough analysis of possible future market conditions that TVA has ever done.

TVA believes that wholesale competitive markets are going to continue to evolve and bring four fundamental changes to the business environment:

First, the emerging wholesale electricity markets that surround TVA either already have or are expected to include the following core features:

- Independent, real-time operation of the regional transmission system, integrated with
- Voluntary day-ahead and real-time energy markets,
- Locational marginal pricing to reflect locational differences in generation costs caused by transmission constraints, and
- Financial congestion revenue rights to allow buyers and sellers to hedge the cost of energy delivered to a particular location.

Second, current law restricts TVA's ability to sell outside the TVA region and restricts the ability of other suppliers to sell power inside the TVA region. TVA must begin to prepare for a future where the laws restricting competition are modified, allowing distributors to choose other suppliers for all or part of their energy needs and allowing TVA to sell surplus power outside the region.

Third, TVA's historic monopoly on power sales in the Valley appears likely to change, although market share is protected for the near term by existing contracts requiring five-year notice of termination. If other suppliers can provide services to distributors, TVA's planning, pricing, and financial structure must adapt to the potential reality that investments in long-lived facilities will face market risk.

Fourth, the cyclical and capital-intensive nature of unregulated power generation poses significant financial risk and will require a more liquid and secure financial structure than the 80 to 100 percent debt financing tested by merchant generators in the early phases of deregulation. TVA must reduce its debt and develop an approach to financing that is more flexible than it has needed in the past.

TVA issued its Strategic Plan in draft form on October 1, 2003. The plan identifies a number of steps that TVA needs to take to begin to prepare for a more competitive future. Specifically, over the next several years, TVA needs to concentrate on four specific areas:

- (1) Developing new, more highly differentiated prices, services, and contract terms that more closely tie the cost and the risk of the product to its terms and pricing.
- (2) Addressing the range of issues related to wholesale market design and transmission pricing, including how TVA will interface with the markets that are expected to surround us, as well as how TVA will price transmission services within the Valley when distributors can choose other suppliers.
- (3) Increasing cash flow through cost reductions or rate increases in order to accelerate debt reduction and provide the financial flexibility needed to tolerate the higher levels of revenue and cost volatility associated with a more competitive market.

In addition to these initiatives, TVA's planning must also reflect the possibility that TVA could remain the full requirements supplier for the distributors in the Valley for an indefinite period of time. Therefore, while preparing for increased competition, TVA must also:

- (4) Maintain and operate its generation and transmission assets so that it continues to fulfill its supply obligations in a safe and reliable manner.

According to the plan, preparing for a more competitive market requires TVA to begin working with distributors to develop new, more highly differentiated prices for power, unbundled services, and new contract terms. TVA also will assess the way it provides and prices transmission service to its customers and decide whether to integrate its transmission system into a larger regional market.

The plan recommends a debt-reduction target of \$3 billion to \$5 billion over the next ten to 12 years but notes that debt-reduction targets will be updated annually depending on TVA priorities and changing market conditions. TVA anticipates that accelerated debt reduction can be achieved through continued emphasis on cost reduction, increased productivity, asset improvements to increase performance, further limiting capital projects where appropriate, and rate adjustments and rate changes consistent with market and power-supply conditions.

The draft plan was made available to members of Congress and the Administration, distributors of TVA power, employees, and other stakeholders. With input from the various stakeholder groups, the plan was approved by the Board in January 2004. Because the plan is a "living" document, it will continue to evolve, providing a framework for TVA to respond to future market challenges.

## **Environmental Matters**

Congress has subjected TVA's activities to certain federal, state and local environmental statutes and regulations. Major areas of regulation affecting TVA's activities include air quality control, water quality 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.

### *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 oxides ("NO<sub>x</sub>") emissions in two phases in order to control acid rain. TVA's strategy to date for complying with the CAAA Title IV requirements for SO<sub>2</sub> has included the construction 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 most of the changeover to lower-sulfur coal. Through 2003, TVA has invested approximately \$1 billion in capital improvements for acid rain compliance. TVA estimates it will spend an additional \$64 million from 2004 to 2006 to complete switches to lower-sulfur coals and approximately \$300 million to install a scrubber at Paradise Unit 3 for acid rain compliance.

NO<sub>x</sub> reductions required under Title IV of the CAAA affected 58 of TVA's 59 coal-fired units. The only TVA unit for which NO<sub>x</sub> reductions are not required under Title IV is TVA's Shawnee Fossil Plant Unit 10. 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 43 units and boiler optimization at the remaining 15 units. In 1996 TVA selected an early election option for four of these 58 units, which allows the four units at John Sevier Fossil Plant to be limited to Phase I NO<sub>x</sub> levels through 2007. In 2008 these four units will have to meet lower Phase 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 ("SCR") systems or other advanced systems to further control NO<sub>x</sub> emissions from approximately 25 of its coal-fired units. SCRs are state-of-the-art NO<sub>x</sub> pollution technology. The installation of these SCRs will ensure compliance with the NO<sub>x</sub> State Implementation Plan ("SIP") Call Rule issued by the Environmental Protection Agency ("EPA") in 1998. Depending on future generation requirements, additional NO<sub>x</sub> controls may be required.

The EPA has finalized new, more stringent National Ambient Air Quality Standards for particulate matter and ozone and a rule designed to reduce regional haze. TVA anticipates that compliance with the new regional haze rule could require additional SO<sub>2</sub> controls by 2013 to 2014. The EPA on December 15, 2003, announced new rules to reduce mercury emissions from coal-fired plants. Depending on the regulatory approach used and the level of the mercury reductions required by EPA's final rules, TVA could incur additional substantial capital costs for control of mercury. The proposed rules would either cap mercury emissions in two phases (the first would be effective in 2010 and the second would be effective in 2018) or establish a mercury emission rate that would have to be achieved by January 2008. In addition, a number of bills have been introduced in Congress that would require significant decreases in NO<sub>x</sub> and SO<sub>2</sub> emissions as well as carbon dioxide emissions. The timing and content of such legislation remains highly uncertain, and it is unlikely that it will be enacted before 2004 or 2005.

TVA anticipates that compliance with emerging regulations will require additional SO<sub>2</sub> emissions reductions and has initiated plans to design, build, and operate four more scrubber systems to further reduce SO<sub>2</sub> emissions

from 11 of its coal-fired units. Design of these scrubbers started in 2003; however, substantial construction activities are not expected to begin until TVA completes its SCR installation program in 2005.

TVA expects that the NO<sub>x</sub> reduction equipment installed to meet the NO<sub>x</sub> SIP Call Rule will likely be adequate to meet new regulations through the end of this decade. Annual, rather than seasonal, operation of this equipment may be required, however.

Expenditures related to the clean air projects during 2003 and 2002 were approximately \$500 million and \$400 million, respectively. The total cost of the planned SCR program is now estimated to be \$1.3 billion. Projects exceeding \$1.0 billion had been completed by the end of fiscal 2003, with approximately \$300 million of the total program remaining. The cost of the planned installation of five scrubbers is estimated to be \$1.5 billion (including the \$300 million scrubber for Paradise Unit 3). The total cost of future compliance with NO<sub>x</sub>, SO<sub>2</sub>, and mercury reduction 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 ("CAA"). However, total costs could exceed \$4.0 billion, exclusive of the costs of the planned SCRs and scrubbers.

In the fall of 1999, the EPA commenced judicial or administrative actions against a number of utilities in the eastern United States, including TVA, alleging that they modified their coal-fired units without complying with new source review ("NSR") requirements. EPA issued an administrative order directing TVA to put new source controls on 14 of its coal-fired units and evaluate whether more controls should be installed on other units. TVA challenged the validity of this order, and on June 24, 2003, the Eleventh Circuit Court of Appeals issued its decision in the case. Although the Eleventh Circuit did not rule on the merits of the case, a three judge panel of the court held that the procedure used by EPA against TVA was "unconstitutional" and that "TVA is free to ignore" EPA's administrative compliance order because it was "legally inconsequential" and did not constitute final agency action. The Eleventh Circuit concluded that part of the CAA is unconstitutional because it allows EPA to decide that a regulated party like TVA has violated the law and is liable for severe penalties without ever allowing the regulated party to present evidence on whether the law was in fact violated. The court said that EPA may sue TVA in district court to try to prove its case. The EPA, through the Department of Justice, moved for reconsideration en banc by the Eleventh Circuit of the court's decision. The Eleventh Circuit denied EPA's motion for rehearing. The EPA may seek review of the Eleventh Circuit's decision in the U.S. Supreme Court. The outcome of this litigation and the EPA proceedings is uncertain. It is not possible to predict with certainty what impact implementation of EPA's order would have on TVA if EPA prevails on the merits. TVA could be required to incur capital costs in excess of \$3 billion by 2010 to 2012 to implement EPA's order (see note 9 — *Contingencies — Environmental Matters — Clean Air Developments*). Any additional controls that TVA could be required to install on units as a result of this matter, however, would also apply toward other reduction requirements that are anticipated under developing CAA regulatory programs discussed above. Thus, because of the other CAA program requirements, TVA would, in any event, likely have to incur a substantial portion of the costs that might result from the EPA enforcement action. TVA fully supports the need to further reduce emissions from coal-fired plants and seeks a resolution that will not put TVA customers and the region at a disadvantage.

#### *Hazardous Substances*

The release and cleanup of hazardous substances are regulated under the Comprehensive Environmental Response, Compensation, and Liability Act. 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 ten 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.

#### *Water Quality*

Under the Clean Water Act ("CWA"), every point source which discharges pollutants into waters of the United States must obtain a National Pollutant Discharge Elimination System ("NPDES") permit specifying the allowable quantity and characteristics of the pollutants discharged. All of TVA's various point sources operate under NPDES permits, including all of its major generating units. Compliance with NPDES requirements has necessitated substantial expenditures and may require additional expenditures in the future as NPDES permits come up for renewal and applicable requirements become more stringent.

The CWA allows the permitting authority to establish thermal limits less stringent than the water quality criteria if the discharger can demonstrate that the alternate limit will assure protection and propagation of a balanced, indigenous aquatic population. TVA has been issued alternate limits at several of its facilities, and it is meeting these limits. Periodic monitoring of fish and other aquatic life is required to substantiate that the standard is still being met.



The next permit renewals in Alabama and Tennessee will require new data collected during the existing permits' terms to be included with the permit renewal applications. The CWA also requires that the design, capacity, location, and construction of cooling water intake structures reflect the best technology available for minimizing adverse environmental impacts. In December 2001, EPA issued a national rule for implementing this statutory requirement at new intakes – a rule which will require that future intakes meet specified criteria. EPA is currently engaged in rulemaking to address existing facilities, having issued a rule which, in its proposed form, will establish national performance standards for minimizing impact on aquatic life. The new rule should reduce environmental impact uncertainty and long-term monitoring requirements. The rulemaking for existing facilities, previously scheduled to be issued in August 2003, has been delayed. The existing facilities rule may require additional short-term monitoring at some existing TVA facilities, and may require some additional control or operational measures if control costs are not significantly greater than the environmental benefits to be derived from their use. The need for and cost of such potential changes is uncertain, but the requirements for facilities on reservoirs and large rivers where most TVA facilities are located are less stringent than for facilities on oceans, estuaries, tidal rivers, the Great Lakes, and smaller rivers.

#### *Solid and Hazardous Waste Management*

Under the Resource Conservation and Recovery Act (“RCRA”), the storage, transportation, and disposal of hazardous wastes are regulated by EPA and the states. RCRA also allows EPA and the states to regulate solid wastes, and the states have EPA-authorized programs for this. TVA has detailed procedures in place designed to ensure compliance with all applicable requirements for the management of hazardous wastes. Additionally, TVA has instituted an approved supplier list for hazardous waste disposal contractors under which such contractors' financial status, compliance history, and physical facilities and operations are reviewed before they are allowed to treat or dispose of any of the hazardous wastes generated by TVA facilities. TVA does not itself operate any hazardous waste disposal or treatment facilities but does operate a permitted hazardous waste storage facility in Muscle Shoals, Alabama. TVA maintains solid waste disposal permits for the solid waste disposal areas (e.g., fly ash, scrubber sludge, demolition materials, and asbestos) it operates at some of its plant sites. TVA's costs in this area have not been substantial, but applicable requirements change frequently and are expected to become more stringent.

#### *Miscellaneous*

Polychlorinated biphenyls (“PCBs”) have been widely used as insulating fluids in electric equipment such as transformers and capacitors. Use of this equipment and the cleanup of released PCBs are regulated by EPA under the Toxic Substances Control Act. The TVA power system uses thousands of pieces of equipment that contain some level of PCBs. These pieces of equipment, when maintained properly, may continue to be operated under EPA's PCB regulations for the remainder of their useful lives. However, both international and domestic pressures are increasing to eliminate all use of PCBs. TVA has been phasing out much of this equipment. The cost of phasing out the remainder of this equipment cannot be accurately determined at this time, but is estimated to be approximately \$200 million. TVA has detailed procedures in place to continue operational compliance with EPA's PCB regulations and has not incurred substantial costs in this area.

TVA owns property that is, or has been, used for industrial purposes. Use of these properties may subject TVA to potentially material liabilities relating to the investigation and cleanup of contaminants or property damage as the results of hazardous substances. Each year TVA prepares a compilation of estimated costs for oil cleanup and environmental remediation for its own properties, and for properties of others for which TVA may have a potential liability (see note 9 — *Contingencies — Environmental Matters — Hazardous Substances*). As of September 30, 2003, TVA has recorded a liability in excess of \$30 million to cover such costs primarily related to its Watts Bar Fossil Plant which is no longer used in production.

There is public concern about whether there are adverse health effects from exposure to electric and magnetic fields (“EMF”). There are many sources of EMF, including electric transmission lines. Certain research, including a report by a National Academy of Sciences organization, has not found conclusive evidence that EMF causes adverse health effects. Other research, such as a report by the National Institute of Environmental Health Sciences, has found limited evidence that certain types of exposure to EMF are carcinogenic. Research in this area continues. Substantial costs could be incurred by electric systems, including TVA, if EMF levels from transmission lines have to be reduced, but this appears unlikely at this time.

### *Related Matters*

On August 7, 2003, the United States District Court for the Southern District of Ohio issued a decision on the merits in EPA's NSR enforcement action against Ohio Edison. The court held for EPA on all issues. The issues in this case are substantially the same as the issues in TVA's case against EPA before the Eleventh Circuit (discussed above) in which the Eleventh Circuit held that EPA's administrative compliance order was unconstitutional and could not be enforced against TVA. TVA is not a party in the Ohio Edison case, and the decision in that case has no direct effect on TVA.

On August 26, 2003, the United States District Court for the Middle District of North Carolina issued a decision in favor of Duke Power in a case brought by EPA against the North Carolina based power company. The case was based on the same legal tests that TVA argued should be used in its Eleventh Circuit case against EPA. The court agreed with the legal tests that Duke Power argued should be used to determine (1) whether projects at its coal-fired power plants were routine maintenance, repair, and replacement and (2) whether such projects would significantly increase emissions. The court also rejected EPA's reliance on the decision from EPA's internal Environmental Appeals Board that held against TVA because of the decision's self-serving nature. In addition, the court expressly rejected the decision (discussed above) by a federal district court in Ohio in favor of EPA in its NSR enforcement action against Ohio Edison. Because of the factual nature of the NSR cases, there still must be a trial in the Duke case in order to give EPA an opportunity to prove its case under the announced legal tests.

On August 27, 2003, EPA issued its final rule clarifying what constitutes routine replacement projects which are excluded from NSR requirements. Under EPA's final rule, as long as a project does not involve replacing plant components costing more than 20 percent of the cost of a new unit and the capacity of the unit is not increased, the project is excluded from NSR requirements. While the rule applies only to new projects, EPA specifically notes in the preamble that the TVA projects targeted by EPA in its NSR enforcement action against TVA would have been excluded under the 20 percent test. It is expected that this final rule will allow TVA to continue to maintain safe and reliable operation of its coal-fired units in the future. The rule is in litigation and must be adopted by the Valley states in separate rulemaking processes before it will be applicable to TVA.

### **Legal Proceedings**

For a discussion of TVA's current legal proceedings and anticipated outcomes, see "*Legal Proceedings*" in Part I.

### **Subsequent Events**

#### *Legislation*

Two bills were introduced into Congress in 2003 that called for expanding and restructuring the TVA Board, one by Representative Cooper (D-TN) and a similar one by Senator Frist (R-TN). These bills would have created a nine-member part-time Board that would, among other things, establish long-range goals and policies for TVA, approve TVA's annual budget, determine electricity rates, and appoint a Chief Executive Officer ("CEO") who would manage TVA's day-to-day operations. Neither bill became law in the first session of Congress. In order for either bill to become law, it must be approved by both the House and Senate and signed by the President.

In addition, during the last weeks of the first session of Congress, the proposed Energy Policy Act of 2003 ("Energy Bill") was under active consideration. It was reported by the Conference Committee and approved by the House of Representatives. In the Senate, a vote to invoke cloture on the Energy Bill failed, and the bill did not become law in the first session of this Congress.

Among other things, the Energy Bill would (1) similar to the Frist bill, convert TVA's Board of Directors into a part-time Board of nine members serving sequenced five-year terms and create a new position of CEO to manage TVA's day-to-day operations, (2) authorize FERC to review TVA's transmission rates and terms and conditions of service to determine whether they are comparable to those TVA imposes on itself and whether they are unduly discriminatory, and (3) authorize FERC to order refunds if the rates charged by TVA and other nonjurisdictional entities on wholesale electricity transactions for a term of 31 days or less are not just and reasonable. In addition, the Energy Bill contains some unclear language that might be interpreted as inadvertently repealing the Anti-Cherry-picking Provision. TVA does not believe that Congress intended for the Energy Bill to repeal the Anti-Cherry-picking Provision, and the Conference Committee leader of the House of Representatives has stated in a floor colloquy that no such repeal was intended.

### *Hedging Pilot Program*

A financial trading pilot program to reduce TVA's economic risk exposure associated with TVA's physical electric generation, purchases, and sales was approved by the Board on September 11, 2003. The program allows TVA to trade certain futures contracts and options on futures contracts for hedging purposes only. Trading covered by this authorization will be for the purpose of hedging risks associated with the cost of natural gas and fuel oil for TVA's power generation operations and risks under power purchase or sale arrangements where the energy price varies based upon a fuel index. Trading of authorized futures contracts and options on futures contracts shall be limited solely to those transactions that hedge or otherwise limit economic risks directly associated with TVA's fuel requirements for power generation or with the aforementioned type of power purchase or sale arrangement. Transactions shall be limited to trading of the NYMEX futures contracts and options on futures contracts related to natural gas and fuel oil. Trading shall not be authorized for speculative purposes. The pilot program shall end on August 31, 2005. No trades were made in 2003 under this trading program.

### *Prepayment Agreement*

On November 20, 2003, TVA and Memphis Light, Gas & Water ("MLGW"), a distributor of TVA power, entered into an agreement under which MLGW would make a prepayment to TVA for \$1.5 billion worth of electricity capacity. TVA received proceeds of \$1.5 billion from this transaction in December 2003. See "*Liquidity and Capital Resources*" — "*Prepayment of Energy Services*" above.

### *Termination Notices*

In addition to the four distributors giving termination notices in 2003 (see "*Business*" — "*Rates and Customers*" — "*Termination Notices*" in Part I), TVA received notice in November 2003 from Monticello Electric Plant Board ("Monticello") that terminates its power contract with TVA in November 2008 as well as a notice in December 2003 from Glasgow Electric Plant Board ("Glasgow") that terminates its power contract with TVA in December 2008. In 2003, sales to Monticello generated less than 0.1 percent of TVA total electricity sales, and sales to Glasgow generated approximately 0.2 percent of TVA's total electricity sales. Combined sales to the six distributors that have given notice to date amounted to \$241 million, or four percent, of TVA's total electricity sales in 2003 and \$233 million, or three percent, of TVA's total electricity sales in 2002.

### *USEC Contract*

In January 2004, the United States Enrichment Corporation ("USEC") announced it will begin constructing its new commercial centrifuge facility in Piketon, Ohio. Once this new facility is opened, it is unclear how much energy USEC will need to acquire from TVA for its Paducah, Kentucky facility ("Paducah Facility"). Under the current contract with TVA, USEC is required to purchase a fixed amount of energy for its Paducah Facility through May 2006. In 2003, sales to USEC for its Paducah Facility generated approximately 3.5 percent of TVA's total operating revenues. TVA does not expect any loss of revenues from sales to USEC to have a material effect on TVA's financial condition.

### *Project Cancellation*

In December 2003, TVA was notified that Regenesys Technologies Limited ("RTL") will not go forward with manufacturing of the fuel cells to be installed in the partially completed Regenesys energy storage plant in Columbus, Mississippi. RTL has made a business decision to close down all of its operations, making it impossible for TVA to complete the facility. Accumulated costs associated with the project totaled approximately \$35 million which TVA recognized in the first quarter of 2004 as a loss on project cancellation. TVA is pursuing reimbursement from RTL for early termination of the contract, the amount of which is indeterminable at this time, but is not likely to exceed \$15 million.

### *Legal Proceedings*

On August 31, 1999, Birmingham Steel Corporation filed a lawsuit in the U.S. District Court for the Northern District of Alabama alleging that TVA overcharged for economy surplus power ("ESP") during the summer of 1998. The lawsuit was filed as a class action on behalf of industrial customers who participated in TVA's ESP program. Under ESP contracts, the hourly ESP energy price is calculated using TVA's actual incremental cost of supplying the ESP load in each hour. The plaintiff alleges that TVA overcharged for ESP during the summer of 1998 by including in the price of ESP some costs that were added to TVA's incremental cost. The complaint seeks over \$100 million in

damages on behalf of Birmingham Steel and the other class members. In September 2002, the district court decertified the class and then dismissed Birmingham Steel's individual claim without prejudice on a jurisdictional issue. The class lawyers appealed the ruling on class decertification, and in December 2003, the U.S. Court of Appeals for the Eleventh Circuit reversed that ruling and sent the case back to the district court to allow the class lawyers a reasonable time to find a new class representative. If the class lawyers are unsuccessful, the Eleventh Circuit indicated that the class could then be decertified. At the present time, TVA believes it is more likely than not that a new class representative will not come forward.

### **Forward-Looking Information**

This Statement 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.

In certain cases, forward-looking statements can be identified by the use of words such as "may," "will," "should," "expect," "anticipate," "believe," "intend," "project," "plan," "predict," "assume," "estimate," "objective," "possible," "potential," or other similar expressions.

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; strategic objectives; anticipated availability of nuclear waste storage facilities; projections of nuclear decommissioning costs; and impacts of pending litigation and various administrative orders which have been or may be issued.

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 the restructuring of the electric power industry and various environmental matters; increased competition among electric utilities; legal and administrative proceedings affecting TVA; the financial and economic environment; performance of TVA's generation and transmission assets; fuel prices; demand for electricity; changes in technology; changes in the price of power; loss of any significant customers or suppliers; creditworthiness of counterparties; weather conditions and other natural phenomena; changes in accounting standards; and unforeseeable events. New factors emerge from time to time, and it is not possible for management to predict all such factors or to assess the extent to which any factor or combination of factors may impact TVA's business or cause results to differ materially from those contained in any forward-looking statement.

TVA undertakes no obligation to update any forward-looking statement to reflect developments that occur after the statement is made.

## **QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK**

### **Risk Governance**

TVA does not engage in wholesale trading operations for the purposes of speculation. Rather, when necessary in order to balance TVA's load obligation, TVA will engage in some aspects of physical trading. Further, TVA employs commodity-based instruments which include forwards and option contracts to manage risks associated with market fluctuations in the price and transportation costs of certain commodities and fuels including, but not limited to, coal, natural gas, and electricity.

The Board has established a Risk Management Committee, which is charged with governance and risk oversight for TVA. These functions include but are not limited to: review and direction of risk management strategy, review and monitoring of risk indicators, review and approval of counterparty exposure limits, review of new instruments for Board approval, oversight of models and assumptions used to model risk, and controls regarding the use of hedging instruments. In addition, there are policies and procedures established to provide direction for daily operations.

TVA is exposed to market risks, including changes in interest rates, foreign currency exchange rates in association with TVA bonds, volatility of energy related commodities (electricity, natural gas, and coal), equity market prices, and losses in the event of counterparties' nonperformance. To manage the volatility attributed to certain of these exposures, TVA has entered into various nontrading derivative transactions, principally an interest rate swap

agreement, foreign currency swap contracts, coal contracts, and natural gas contracts. Additionally, to manage environmental volatility, TVA has obtained options related to SO<sub>2</sub> allowances (see note 5 — *Commodity Contracts*). The exposure to losses in the event of the counterparties' nonperformance has been mitigated through controls to determine the creditworthiness of counterparties before transactions take place.

### Cash Flow at Risk

Cash Flow at Risk ("CFaR") is the probability that the company will meet its cash flow targets. CFaR is used to simulate future financial statements, taking as its input the 12-month projected values of the financial prices relevant to the company. Its purpose is to build a probabilistic picture of the impact of various risks on the company's cash flow or profitability in much the same way as Value at Risk ("VaR") is used to find the probability of losses on a portfolio of assets. Using a two-tailed test with a 95 percent confidence level at September 30, 2003, there was a 2.5 percent probability that TVA could lose as much as \$233 million. During the course of 2004, TVA will be working to refine its valuation methodologies in an effort to disclose better information to its stakeholders. TVA measures CFaR on a weekly basis.

### Value at Risk

The commodity market risk exposure is measured through TVA's VaR calculation. VaR is a single summary statistic of possible portfolio losses due to normal market movements for a given confidence level over a selected period of time. TVA measures VaR on a daily basis. TVA's VaR exposure for the electricity, natural gas, and other commodities in which TVA has market positions, assuming a ten-day holding period and a one-day holding period, is described below:

#### *Electricity*

#### **Electricity Value at Risk Associated with Energy Trading Contracts and Related Energy Derivative Contracts For the Year Ended September 30, 2003**

	<u>Company Wide VaR</u> (in millions)
<b>95% Confidence level, ten-day holding period, two-tailed</b>	
For the year ended September 30, 2003.....	\$ 1.62
Average for the period .....	\$ 5.50
High.....	\$ 13.96
Low.....	\$ 1.49
<b>99% Confidence level, one-day holding period, two-tailed</b>	
For the year ended September 30, 2003.....	\$ 0.66
Average for the period .....	\$ 2.24
High.....	\$ 5.69
Low.....	\$ 0.61

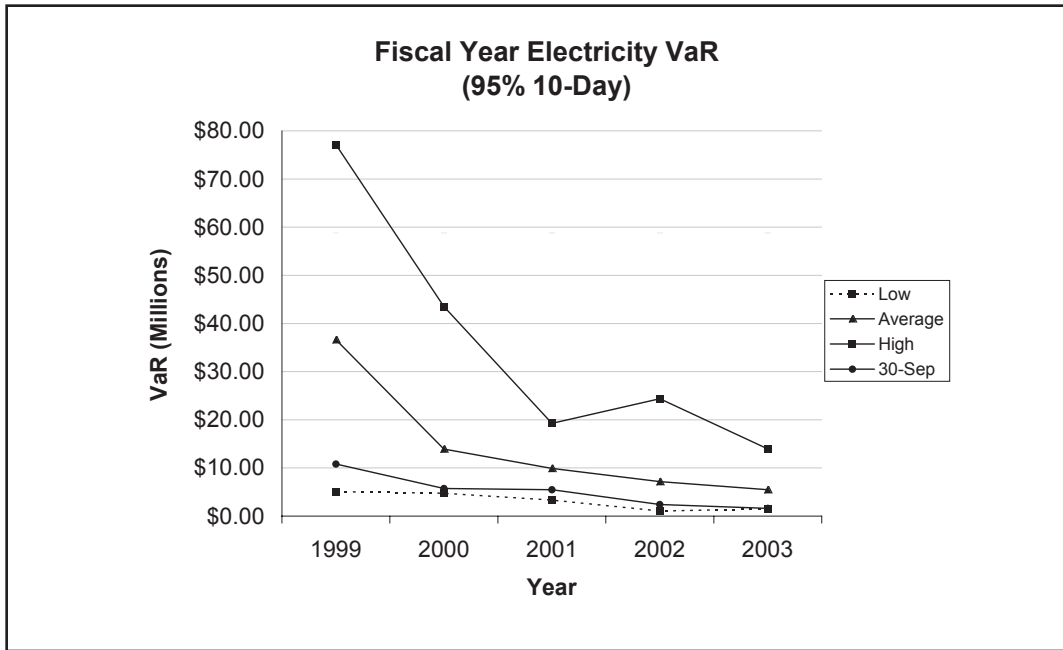
#### Notes

From the table above, given a 95 percent confidence level at September 30, 2003, there is a 2.5 percent probability TVA's electricity portfolio could lose as much as \$1.62 million over the next ten days. The average VaR for the entire year for the ten-day holding period would be a loss of \$5.50 million. Further, given a 99 percent confidence level at September 30, 2003, there is a 0.5 percent probability that TVA's electricity portfolio could lose as much as \$0.66 million over the next day. The average VaR for the entire year for the one-day holding period would be a loss of \$2.24 million.

The VaR calculations are for the TVA 5x16 electricity portfolio for 2003. The calculations are for the rolling forward 12-month portfolio. The VaR method used is the parametric variance/covariance method accepted as an industry standard.

Back-testing of the VaR calculation is done using a statistical procedure called the chi-square test. TVA performs back-tests of the actual daily Mark-to-Market ("MTM") profit and loss fluctuations for three-month, six-month, and 12-month periods. Due to changes in the method of measuring these profit and loss fluctuations in 2003, only five months of valid data is available for this year and, therefore, only the 3-month back-test was performed. The chi-square value for the 3-month period is within the selected significance level indicating a valid VaR calculation.

The historical performance of TVA's electricity VaR calculation is represented in the following graph:



As indicated by the chart, TVA's electricity market risk exposure has been reduced since 1999 when VaR was first measured. This reduction was primarily due to four factors: lower forward market prices as of September 30, 2003; TVA's new peaking generation coming on line; lower market price volatility in recent years; and less dependency on the energy spot market for energy balancing requirements.

*Natural Gas*

**Natural Gas Value at Risk  
Associated with Energy Trading Contracts and Related Energy Derivative Contracts  
For the Year Ended September 30, 2003**

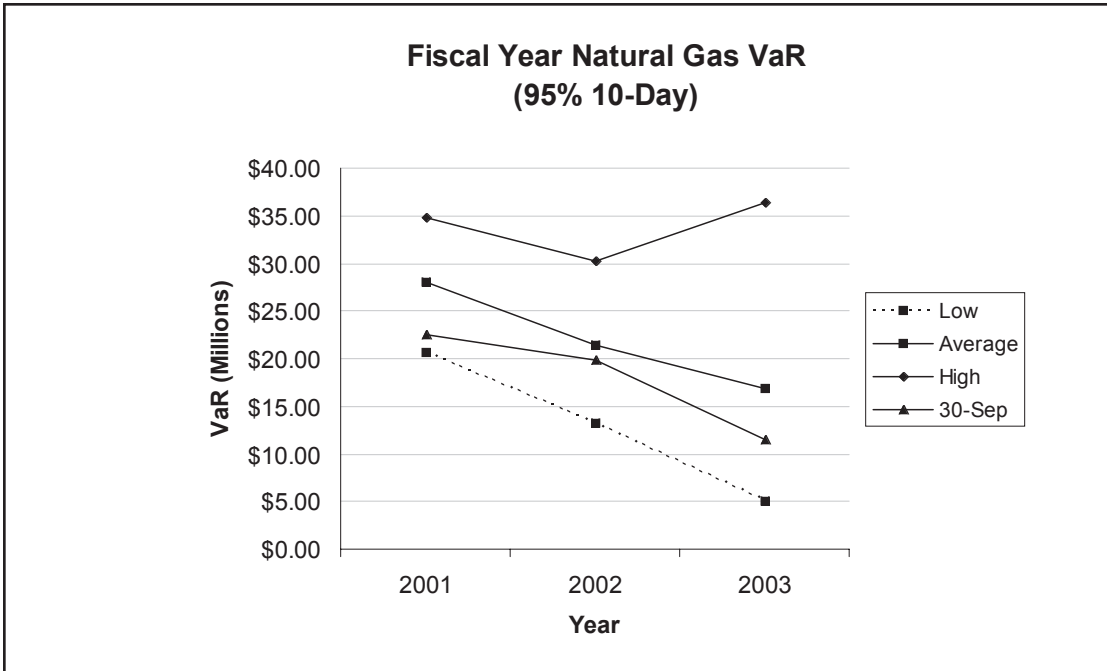
	<u>Company Wide VaR</u> (in millions)
<b>95% Confidence level, ten-day holding period, two-tailed</b>	
For the year ended September 30, 2003.....	\$ 11.50
Average for the period.....	\$ 16.85
High.....	\$ 36.30
Low.....	\$ 5.03
<b>99% Confidence level, one-day holding period, two-tailed</b>	
For the year ended September 30, 2003.....	\$ 4.69
Average for the period.....	\$ 6.87
High.....	\$ 14.81
Low.....	\$ 2.05

Notes

The VaR calculations are for the TVA natural gas portfolio for 2003. The calculations are for the rolling forward 12-month portfolio. The VaR method used is the parametric variance/covariance method accepted as an industry standard.

Back-testing of the VaR calculation is done using a statistical procedure called the chi-square test. TVA performs back-tests of the actual daily MTM profit and loss fluctuations for three-month, six-month, and 12-month periods. The chi-square values for all periods are within the selected significance level indicating a valid VaR calculation.

The historical performance of TVA's natural gas VaR calculation is represented in the following graph:



TVA has tracked natural gas VaR exposure since 2001. The graph above indicates TVA's lower market risk exposure to natural gas since initially tracking this measure in 2001. This reduction was primarily due to lower gas prices and TVA's 2003 gas hedges, which reduced exposure to market price fluctuations.

#### *Fuel Oil*

TVA purchases fuel oil as a substitute fuel source for TVA's gas turbine fleet. TVA's hedge against market risk for fuel oil is the use of natural gas and is captured in the natural gas VaR. TVA monitors the spread between fuel oil and natural gas for hedging purposes. During 2003, natural gas had a significant advantage over fuel oil for most of the year. Therefore, TVA's fuel oil position was not materially affected by market risk.

#### *Coal*

TVA's contracts with coal suppliers have specified rates and volumetric flexibility which limit TVA's exposure to market risk. Given TVA's contract mix, TVA is approximately 82 percent hedged to coal market risk exposure. Because of issues concerning coal's lack of fungibility and market transparency, TVA does not currently maintain a coal VaR calculation.

*Sulfur Dioxide (SO<sub>2</sub>)*

**SO<sub>2</sub> Allowance Value at Risk  
Associated with Energy Trading Contracts and Related Energy Derivative Contracts  
For the Year Ended September 30, 2003**

	<u>Company Wide VaR</u> (in millions)
<b>95% Confidence level, ten-day holding period, two-tailed</b>	
For the year ended September 30, 2003 .....	\$ 1.45
Average for the period .....	\$ 3.09
High .....	\$ 4.14
Low .....	\$ 0.95
<b>99% Confidence level, one-day holding period, two-tailed</b>	
For the year ended September 30, 2003 .....	\$ 0.59
Average for the period .....	\$ 1.26
High .....	\$ 1.69
Low .....	\$ 0.39

Notes

The VaR calculations are for the TVA SO<sub>2</sub> portfolio for 2003. The calculations are for the rolling forward eight-year portfolio. The VaR method used is the parametric variance/covariance method accepted as an industry standard.

Back-testing of the VaR calculation is done using a statistical procedure called the chi-square test. TVA performs back-tests of the actual daily MTM profit and loss fluctuations for three-month, six-month, and 12-month periods. Since 2003 is the first year VaR was measured for SO<sub>2</sub>, changes in the markets and adjustments to models have yielded ten months of valid data for this year and, therefore, only the three-month and six-month back-tests were performed. The chi-square values for the three-month period and the six-month period are within the selected significance level indicating a valid VaR calculation.

*Nitrogen Oxides (NO<sub>x</sub>)*

**NO<sub>x</sub> Allowance Value at Risk  
Associated with Energy Trading Contracts and Related Energy Derivative Contracts  
For the Year Ended September 30, 2003**

	<u>Company Wide VaR</u> (in millions)
<b>95% Confidence level, ten-day holding period, two-tailed</b>	
For the year ended September 30, 2003 .....	\$ 4.05
Average for the period .....	\$ 7.03
High .....	\$ 11.80
Low .....	\$ 1.14
<b>99% Confidence level, one-day holding period, two-tailed</b>	
For the year ended September 30, 2003 .....	\$ 1.65
Average for the period .....	\$ 2.87
High .....	\$ 4.81
Low .....	\$ 0.46

Notes

The VaR calculations are for the TVA NO<sub>x</sub> portfolio for 2003. The calculations are for the rolling forward eight-year portfolio. The VaR method used is the parametric variance/covariance method accepted as an industry standard.

Back-testing of the VaR calculation is done using a statistical procedure called the chi-square test. TVA performs back-tests of the actual daily MTM profit and loss fluctuations for three-month, six-month, and 12-month periods. This was the first year that VaR was measured for NO<sub>x</sub>, and several factors of instability have affected TVA's ability to accurately depict the market. These factors include high volatility causing unstable prices, lack of price transparency, as well as very little depth of market, making it difficult to accurately measure the effects of sudden and considerable profit and loss fluctuations. The chi-square values for the three-month period and



the six-month period were measured and fell just beyond the selected significance level indicating the VaR measures for these periods are not yet valid. As the market matures and settles, the VaR calculation is expected to be within the significance levels.

TVA has no merchant capacity assets or transactions which expose TVA to market risk. TVA does have long-term transactions, the energy supplied under which will serve native load requirements (see note 9 — *Commitments — Power Purchase Obligations*). The market risk associated with the structure of these transactions is captured in the VaR estimates above.

### Mark-to-Market Valuation

Sensitivity analyses are performed on a daily and weekly basis to determine the market price impact to the energy portfolio when the market price moves beyond TVA's projections.

TVA also monitors the MTM fair value of energy assets in future years. MTM accounting reports contracts at their "fair value," the value a willing third party would pay for the particular contract at the time a valuation is made. These transactions include, but are not limited to, native system load contracts, energy forwards, energy options, and other energy derivative instruments for unit specific generation units. Due to the public service nature of its business, TVA historically values its resource positions for the year ahead.

When available, quoted market prices are used to record a contract's fair value. However, market values for energy trading contracts may not be readily determinable because the duration of the contracts exceeds the liquid activity in a particular market. If no active trading market exists for a commodity, holders of these contracts must calculate fair value using pricing models based on contracts with similar terms and risks. As of September 30, 2003, TVA's forward positions on a MTM basis for all TVA energy assets for all hours are as follows:

<u>Source of Fair Value (in millions)</u>	<u>2004</u>	<u>Total Fair Value</u>
Owned Assets		
Actively Quoted Prices provided by external sources .....	\$ 4,795	\$ 4,795
Modeled .....	<u>—</u>	<u>—</u>
Total .....	<u>\$ 4,795</u>	<u>\$ 4,795</u>
Average tenor of portfolio		1 Year

#### Notes

Note that prices quoted by external sources reflect independent broker quotations and publicly posted prices on electronic media such as Intercontinental Exchange.

Based on September 30, 2003, closing prices, the MTM value of TVA's energy portfolio for calendar 2004 is \$4.8 billion as shown in the chart above. The fair value calculation determines a profit or loss for each source of fair value, e.g. load, based on market prices. For example, instead of using accrual accounting to calculate load revenue, the MTM calculation compares the load revenue from selling the generation to customers to the load revenue from selling the generation into the market. The difference is the MTM value. Since TVA is almost completely hedged, only a small portion of power is bought and sold in the market so the market price has little impact on TVA margins.

### Financial Trading Pilot Program

A financial trading pilot program to reduce TVA's economic risk exposure associated with TVA's physical electric generation, purchases and sales was approved by the Board on September 11, 2003. The program allows TVA to trade certain futures contracts and options on futures for hedging purposes only. Trading covered by this authorization will be for the purpose of hedging risks associated with the cost of natural gas and fuel oil for TVA's power generation operations and risks under power purchase or sale arrangements where the energy price varies based upon a fuel index. Trading of authorized futures contracts and options on futures contracts shall be limited solely to those transactions that hedge or otherwise limit economic risks directly associated with TVA's fuel requirements for power generation or with the aforementioned type of power purchase or sale arrangement. Transactions shall be limited to trading of the NYMEX futures contracts and options on futures contracts related to natural gas and fuel oil. Trading shall not be authorized for speculative purposes. The pilot program extends through August 31, 2005. There were no trades in 2003.

### Credit Risk

Credit risk is the exposure to economic loss that would occur as a result of a counterparty's nonperformance of its contractual obligations.

The majority of TVA's credit risk is limited to trade accounts receivable from delivered power sales to municipal and cooperative distributors, all located in the seven-state Tennessee Valley region. To a lesser extent, TVA is exposed to credit risk from industries and federal agencies directly served and from exchange power arrangements with a small number of investor-owned regional utilities related to either delivered power or the replacement of open positions of longer-term purchased power or fuel agreements.

Where exposed to credit risk, TVA analyzes the counterparty's financial condition prior to entering into an agreement, establishes credit limits, monitors the appropriateness of those limits on an ongoing basis, and employs credit mitigation measures, such as collateral or prepayment arrangements and master purchase and sale agreements to mitigate credit risk.

The table below summarizes TVA's counterparty credit risk exposure as of September 30, 2003:

**Counterparty Credit Risk Exposure  
(in millions)**

**Trade Accounts Receivable:**

Municipalities & Cooperative Distributors	
Investment Grade .....	\$ 635
Internally Rated — Investment Grade .....	241
Industries & Federal Agencies Directly Served	
Investment Grade .....	29
Non-investment Grade* .....	20
Internally Rated — Investment Grade .....	17
Internally Rated — Non-investment Grade .....	9
Exchange Power Arrangements	
Investment Grade .....	2
Non-investment Grade .....	5
Internally Rated — Investment Grade .....	0
Internally Rated — Non-investment Grade .....	1
<b>Subtotal</b> .....	<u>959</u>
<b>Other Accounts Receivable:</b>	
Miscellaneous Accounts .....	43
Provision for Uncollectible Accounts .....	(8)
<b>Subtotal</b> .....	<u>35</u>
<b>Total</b> .....	<u>\$ 994</u>

Notes

\* Includes receivable of \$19 million from one customer rated "Ba1" by Moody's Investor Service and "BB" by Standard and Poor's.

TVA has concentrations of accounts receivable from four municipal customers that represented 30 percent of total accounts receivable as of September 30, 2003.

**Rating Triggers**

As of September 30, 2003, TVA was a party to four swap contracts, two swaption contracts, and 15 power purchase agreements that contained rating triggers. TVA's primary triggers in its power purchase agreements are based on the Edison Electric Institute standard contract agreement. Under most of these rating triggers, the amount of collateral that TVA will have to post under certain circumstances will increase if TVA's rated bonds are downgraded. The requirement to post collateral under any of these contracts, if triggered, would not have a material effect on TVA's financial condition.

**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, 2003, 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.

### **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. During 2003, TVA supplied approximately 6.5 percent of system requirements with power purchased under electricity forward contracts. These contracts qualify for normal purchase and normal sale accounting under SFAS No. 133, as interpreted by DIG Issue C15 (see "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" — "*Critical Accounting Policies*" — "*Normal Purchases and Normal Sales Special Exemption*"). At September 30, 2003, management does not anticipate a materially adverse effect on TVA's financial position or results of operations as a result of market fluctuations.

### **Operational Risk**

#### *Insurance*

TVA generally does not purchase commercial general liability, auto liability, workers' compensation, accidental property damage and business interruption insurance. Additionally, although TVA uses private companies to administer its health-care plans for eligible active and retired employees not covered by Medicare, TVA does not purchase health insurance. Consulting actuaries assist TVA in determining certain liabilities for self-assumed claims. TVA pays for losses in these areas through power revenues or through power financings.

TVA maintains nuclear liability insurance and nuclear property, decommissioning, and decontamination insurance with an outside party (see note 9 — *Contingencies* — *Nuclear Insurance*).

The Federal Employees' Compensation Act governs liability to employees for service-connected injuries.

Additional information on risk management activities and the financial impact of these activities is provided in notes 1 and 9.

FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

STATEMENTS OF INCOME – POWER PROGRAM

For the years ended September 30  
(in millions)

	<u>2003</u>	<u>2002</u>	<u>2001</u>
<b>Operating revenues</b>			
Sales of electricity			
Municipalities and cooperatives	\$ 5,974	\$ 5,856	\$ 5,908
Industries directly served	781	732	659
Federal agencies and other	120	120	226
Other revenue	<u>77</u>	<u>88</u>	<u>102</u>
Total operating revenues	<u>6,952</u>	<u>6,796</u>	<u>6,895</u>
<b>Operating expenses</b>			
Fuel and purchased power	1,957	1,877	1,878
Operating and maintenance	2,027	1,849	1,667
Depreciation, amortization, and accretion	1,062	1,027	1,312
Tax-equivalents	329	328	315
Accelerated amortization ( <i>note 1</i> )	<u>–</u>	<u>66</u>	<u>230</u>
Total operating expenses	<u>5,375</u>	<u>5,147</u>	<u>5,402</u>
<b>Operating income</b>	1,577	1,649	1,493
Other income, net	12	7	248
Loss on impairment of assets/plant cancellation ( <i>notes 1 and 2</i> )	–	(154)	(3,419)
<b>Interest expense</b>			
Interest on debt	1,396	1,468	1,601
Amortization of debt discount, issue, and reacquisition costs, net	28	22	87
Allowance for funds used during construction	<u>(74)</u>	<u>(61)</u>	<u>(55)</u>
Net interest expense	<u>1,350</u>	<u>1,429</u>	<u>1,633</u>
<b>Income (loss) before cumulative effects of accounting changes</b>	239	73	(3,311)
Cumulative effect of change in accounting for unbilled revenue	412	–	–
Cumulative effect of change in accounting for asset retirement obligations	<u>(195)</u>	<u>–</u>	<u>–</u>
<b>Net income (loss)</b>	<u>\$ 456</u>	<u>\$ 73</u>	<u>\$ (3,311)</u>
<b>Pro-forma net income (loss) assuming accounting changes are applied retroactively (<i>note 1</i>)</b>		<u>\$ 144</u>	<u>\$ (3,292)</u>

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

**BALANCE SHEETS**  
**At September 30**  
**(in millions)**

**ASSETS**

	Power Program		All Programs	
	2003	2002	2003	2002
<b>Current assets</b>				
Cash and cash equivalents .....	\$ 532	\$ 397	\$ 533	\$ 400
Accounts receivable, net .....	994	655	994	655
Inventories at average cost and other				
Fuel .....	219	173	219	173
Other .....	308	305	308	305
Total current assets .....	2,053	1,530	2,054	1,533
<b>Property, plant, and equipment</b>				
Completed plant .....	32,626	31,207	33,637	32,219
Less accumulated depreciation .....	(12,251)	(11,162)	(12,568)	(11,469)
Net completed plant .....	20,375	20,045	21,069	20,750
Construction in progress .....	1,619	1,040	1,619	1,040
Deferred nuclear generating units .....	4,110	4,113	4,110	4,113
Nuclear fuel and capital leases .....	530	481	530	481
Total property, plant, and equipment, net .....	26,634	25,679	27,328	26,384
Investment funds .....	905	659	905	659
<b>Deferred charges and other assets</b>				
Loans and other long-term receivables .....	168	138	191	161
Debt issue and reacquisition costs .....	241	193	241	193
Other deferred charges .....	2,392	1,959	2,392	1,959
Total deferred charges and other assets .....	2,801	2,290	2,824	2,313
<b>Total assets</b> .....	\$ 32,393	\$ 30,158	\$ 33,111	\$ 30,889

**LIABILITIES AND PROPRIETARY CAPITAL**

<b>Current liabilities</b>				
Accounts payable .....	\$ 849	\$ 700	\$ 850	\$ 702
Accrued liabilities .....	232	220	232	220
Accrued interest .....	399	397	399	397
Short-term debt .....	2,080	3,492	2,080	3,492
Current maturities of long-term debt .....	2,336	-	2,336	-
Total current liabilities .....	5,896	4,809	5,897	4,811
<b>Other liabilities</b>				
Deferred liabilities .....	3,394	2,413	3,394	2,413
Nuclear decommissioning liability .....	-	891	-	891
Asset retirement obligations .....	1,725	-	1,725	-
Total other liabilities .....	5,119	3,304	5,119	3,304
<b>Long-term debt</b>				
Public bonds .....	20,459	21,763	20,459	21,763
Unamortized discount and other adjustments .....	(258)	(405)	(258)	(405)
Total long-term debt .....	20,201	21,358	20,201	21,358
<b>Commitments and contingencies (note 9)</b>				
<b>Proprietary capital</b>				
Appropriation investment .....	468	488	4,823	4,843
Retained earnings .....	783	349	783	349
Accumulated other comprehensive loss .....	(74)	(150)	(74)	(150)
Accumulated net expense of nonpower programs .....	-	-	(3,638)	(3,626)
Total proprietary capital .....	1,177	687	1,894	1,416
<b>Total liabilities and proprietary capital</b> .....	\$ 32,393	\$ 30,158	\$ 33,111	\$ 30,889

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

**STATEMENTS OF CASH FLOWS**  
**For the years ended September 30**  
**(in millions)**

	Power Program			All Programs		
	2003	2002	2001	2003	2002	2001
<b>Cash flows from operating activities</b>						
Net power income (loss)	\$ 456	\$ 73	\$ (3,311)	\$ 456	\$ 73	\$ (3,311)
Net expense of nonpower programs	-	-	-	(12)	(10)	(32)
Items not requiring (providing) cash						
Depreciation, amortization, and accretion	1,130	1,084	1,471	1,140	1,093	1,482
Accelerated amortization	-	66	230	-	66	230
Allowance for funds used during construction	(74)	(61)	(55)	(74)	(61)	(55)
Nuclear fuel amortization	127	142	158	127	142	158
Loss on impairment of assets/plant cancellation	-	154	3,419	-	154	3,419
Cumulative effect of accounting changes	(217)	-	-	(217)	-	-
Other, net	103	(16)	(45)	103	(16)	(33)
Changes in current assets and liabilities						
Accounts receivable	78	66	(42)	78	66	(42)
Inventories and other	(65)	(49)	(60)	(65)	(49)	(60)
Accounts payable and accrued liabilities	158	(3)	234	157	(5)	226
Accrued interest	2	7	(49)	2	7	(49)
Other	(66)	(116)	(36)	(66)	(116)	(36)
Net cash provided by operating activities	<u>1,632</u>	<u>1,347</u>	<u>1,914</u>	<u>1,629</u>	<u>1,344</u>	<u>1,897</u>
<b>Cash flows from investing activities</b>						
Construction expenditures	(1,693)	(1,231)	(1,015)	(1,693)	(1,230)	(1,015)
Allowance for funds used during construction	74	61	55	74	61	55
Nuclear fuel	(187)	(146)	(94)	(187)	(146)	(94)
Investments	(126)	(27)	(107)	(126)	(27)	(107)
Other, net	(11)	(3)	(30)	(10)	(2)	(22)
Net cash used in investing activities	<u>(1,943)</u>	<u>(1,346)</u>	<u>(1,191)</u>	<u>(1,942)</u>	<u>(1,344)</u>	<u>(1,183)</u>
<b>Cash flows from financing activities</b>						
Long-term debt						
Issues	2,309	2,120	2,708	2,309	2,120	2,708
Redemptions and repurchases	(1,285)	(2,720)	(5,069)	(1,285)	(2,720)	(5,069)
Short-term borrowings, net	(1,412)	476	1,742	(1,412)	476	1,742
Proceeds from call monetizations	256	-	-	256	-	-
Proceeds from equipment financing	389	-	-	389	-	-
Proceeds from combustion turbine financing	325	320	-	325	320	-
Payments on lease/leaseback financing	(36)	(31)	(29)	(36)	(31)	(29)
Financing costs, net	(58)	(58)	(29)	(58)	(58)	(29)
Payments to U.S. Treasury	(42)	(50)	(55)	(42)	(50)	(55)
Net cash provided by/(used in) financing activities	<u>446</u>	<u>57</u>	<u>(732)</u>	<u>446</u>	<u>57</u>	<u>(732)</u>
Net change in cash and cash equivalents	135	58	(9)	133	57	(18)
Cash and cash equivalents at beginning of period	<u>397</u>	<u>339</u>	<u>348</u>	<u>400</u>	<u>343</u>	<u>361</u>
<b>Cash and cash equivalents at end of period</b>	<u>\$ 532</u>	<u>\$ 397</u>	<u>\$ 339</u>	<u>\$ 533</u>	<u>\$ 400</u>	<u>\$ 343</u>

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  
(in millions)

	<u>2003</u>	<u>2002</u>	<u>2001</u>
Retained earnings reinvested at beginning of period . . . . .	\$ 349	\$ 306	\$ 3,652
Net income (loss) . . . . .	456	73	(3,311)
Return on appropriation investment . . . . .	<u>(22)</u>	<u>(30)</u>	<u>(35)</u>
Retained earnings reinvested at end of period . . . . .	783	349	306
Accumulated other comprehensive loss . . . . .	(74)	(150)	(106)
Appropriation investment at beginning of period . . . . .	488	508	528
Return of appropriation investment . . . . .	<u>(20)</u>	<u>(20)</u>	<u>(20)</u>
Appropriation investment at end of period . . . . .	468	488	508
<b>Proprietary capital at end of period . . . . .</b>	<u><u>\$ 1,177</u></u>	<u><u>\$ 687</u></u>	<u><u>\$ 708</u></u>

**STATEMENTS OF CHANGES IN PROPRIETARY CAPITAL – NONPOWER PROGRAMS**

For the years ended September 30  
(in millions)

	<u>2003</u>	<u>2002</u>	<u>2001</u>
Proprietary capital at beginning of period . . . . .	\$ 729	\$ 739	\$ 771
Net expense . . . . .	<u>(12)</u>	<u>(10)</u>	<u>(32)</u>
<b>Proprietary capital at end of period . . . . .</b>	<u><u>\$ 717</u></u>	<u><u>\$ 729</u></u>	<u><u>\$ 739</u></u>

**STATEMENTS OF COMPREHENSIVE INCOME (LOSS) – POWER PROGRAM**

For the years ended September 30  
(in millions)

	<u>2003</u>	<u>2002</u>	<u>2001</u>
Net power income (loss) . . . . .	\$ 456	\$ 73	\$ (3,311)
Other comprehensive income (loss) . . . . .	<u>76</u>	<u>(44)</u>	<u>(106)</u>
<b>Comprehensive income (loss) . . . . .</b>	<u><u>\$ 532</u></u>	<u><u>\$ 29</u></u>	<u><u>\$ (3,417)</u></u>

**STATEMENTS OF NET EXPENSE AND COMPREHENSIVE LOSS – NONPOWER PROGRAMS**

For the years ended September 30  
(in millions)

	<u>2003</u>	<u>2002</u>	<u>2001</u>
Water and land stewardship . . . . .	\$ 12	\$ 10	\$ 32
Other comprehensive loss . . . . .	<u>—</u>	<u>—</u>	<u>—</u>
<b>Net expense and comprehensive loss (note 10) . . . . .</b>	<u><u>\$ 12</u></u>	<u><u>\$ 10</u></u>	<u><u>\$ 32</u></u>

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 non-power 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 power financings, such as proceeds from the issuance of debt. TVA receives no congressional appropriations and is required to make annual payments to the United States 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 ("Board") 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. Rates set by the Board are not subject to review or approval by any state or federal regulatory body. In a future restructured electric power industry, it is possible, however, that the ability of the Board to set TVA's rates as specified in the TVA Act could be adversely affected by legislative changes or by competitive pressures.

TVA prepares its financial statements in conformity with generally accepted accounting principles in the United States of America applied on a consistent basis and, in some cases, TVA's financial statements reflect amounts based on the best estimates and judgment of management, giving due consideration to materiality.

#### *Fiscal Year*

Unless otherwise indicated, years (2003, 2002, etc.) refer to TVA's fiscal years ended September 30.

#### *Cost-Based Regulation*

As an entity, the operations of which are regulated by its Board, TVA is subject to the provisions of Statement of Financial Accounting Standards ("SFAS") No. 71, *Accounting for the Effects of Certain Types of Regulation*. Accordingly, TVA records certain assets and liabilities resulting from the effects of the rate-making process that would not be recorded under generally accepted accounting principles for nonregulated entities. Currently, the electric utility industry is predominately 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 (see note 9 — *Contingencies — Cost-Based Regulation*).

Regulatory assets capitalized under the provisions of SFAS No. 71, *Accounting for the Effects of Certain Types of Regulation*, are shown as Other deferred charges on the Balance Sheet. These assets consist of certain charges related to the closure and removal of nuclear units, losses related to mark-to-market valuation of purchase power contracts, and an adjustment related to the minimum pension liability. The year-end balances of TVA's regulatory assets included in Other deferred charges on the Balance Sheet are as follows:



(in millions)	At September 30	
	2003	2002
Decommissioning costs	\$ 783	\$ 556
Changes in fair value of derivative contracts	50	—
Adjustment to accrue minimum pension liability	1,028	896
	<u>\$ 1,861</u>	<u>\$ 1,452</u>

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. The unamortized balances of such debt issue and reacquisition costs at September 30, 2003 and 2002 were \$241 million and \$193 million, respectively.

TVA has incurred premiums related to certain advanced refundings. In accordance with regulatory practices, prior to September 30, 2001, TVA deferred and amortized such premiums on a pooled straight-line basis over the weighted average life of its public debt portfolio. In 2001, TVA charged the remaining balance of such deferred costs of \$789 million against earnings (see note 1 — *Impairment of Assets*).

#### *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.

#### *Reclassifications*

Certain other reclassifications, not previously discussed, have been made to the 2001 and 2002 financial statements to conform to the 2003 presentation (see note 12). These restatements have no effect on assets, net income, or cash flows.

#### *Cash and Cash Equivalents*

Cash and cash equivalents include the cash available in TVA's commercial bank accounts and 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.

#### *Accounts Receivable*

Accounts receivable primarily consist of amounts due from customers for power sales. The table below summarizes the types and amounts of receivables:

(in millions)	At September 30	
	2003	2002
Power receivables billed	\$ 304	\$ 315
Power receivables unbilled	655	309
Total power receivables	959	624
Other receivables	43	44
Allowance for uncollectible accounts	(8)	(13)
Net accounts receivable	<u>\$ 994</u>	<u>\$ 655</u>

### *Inventories*

Coal, oil, limestone, tire-based fuel inventories, and materials and supplies inventories are valued using an average unit cost method. A new average cost is computed after each transaction and inventory issuances are priced at the latest moving weighted average unit cost.

### *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 inventories, which are included in Property, plant, and equipment, are valued 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 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 3.32 percent for 2003, 3.33 percent for 2002, and 3.28 percent for 2001. Depreciation rates (percent) by asset class are as follows after adjustment for certain asset class reclassifications:

<b>Asset Class</b>	<b>2003</b>	<b>2002</b>	<b>2001</b>
Nuclear . . . . .	3.35	3.34	3.32
Coal-Fired . . . . .	3.48	3.53	3.52
Hydro . . . . .	1.70	1.70	1.70
Combustion turbine . . . . .	4.63	4.30	4.21
Transmission . . . . .	2.53	2.50	2.37
Other . . . . .	6.26	6.64	6.00

### *Nuclear Fuel and Refueling Outage Costs*

TVA's investment in the fuel used in the Sequoyah, Watts Bar, and Browns Ferry nuclear units is being amortized and accounted for as a component of fuel expense (see note 2). Nuclear refueling outage and maintenance costs are deferred and amortized on a straight-line basis over the estimated period until the next refueling outage. The amounts of deferred outage costs for the years ended September 30, 2003, 2002, and 2001 were \$100 million, \$85 million, and \$57 million, respectively.

### *Investment Funds*

Investment funds consist primarily of trust funds designated to fund nuclear decommissioning requirements and debt securities held-to-maturity (see note 9 — *Contingencies — Decommissioning Costs*). Decommissioning funds, which are classified as trading, are invested in portfolios of securities generally designed to earn returns in line with overall equity market performance.

### *Asset Retirement Obligations*

In accordance with the provisions of SFAS No. 143, *Accounting for Asset Retirement Obligations*, TVA recognizes legal obligations associated with the future retirement of certain tangible long-lived assets. TVA only records estimates of such disposal costs at the time the legal obligation arises or costs are actually incurred.

### *Revenues*

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. Off-system sales are sales of excess power after meeting TVA native load and direct served requirements.

### *Insurance*

TVA generally does not purchase commercial general liability, auto liability, workers' compensation, accidental property damage, and business interruption insurance. Additionally, although TVA uses private companies to administer its health-care plans for eligible active and retired employees not covered by Medicare, TVA does not purchase health insurance. Consulting actuaries assist TVA in determining certain liabilities for self-assumed claims. TVA pays for losses in these areas through power revenues or through power financings.

TVA maintains nuclear liability insurance and nuclear property, decommissioning, and decontamination insurance with an outside party (see note 9 — *Contingencies — Nuclear Insurance*).

The Federal Employees' Compensation Act governs liability for service-connected injuries to employees.

### *Accelerated Amortization*

Prior to 2003, annual provisions for amortization of deferred charges were adjusted as necessary in order to achieve certain earnings levels. Such earnings levels were set forth in resolutions adopted annually by the TVA Board in connection with the rate review process. The targeted earnings levels were based on the requirements of the TVA Act and the Basic TVA Power Bond Resolution (see note 6 — *Borrowing Authority*). As a result of surplus earnings levels in 2002 and 2001, TVA accelerated amortization of certain regulatory assets by \$66 million and \$230 million, respectively.

### *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*). Beginning in 2003, TVA evaluated the nature and scope of its decommissioning policy as it relates to all electric plant. The evaluation was used to determine the need for recognition of additional asset retirement obligations as described in the recently issued SFAS No. 143, *Accounting for Asset Retirement Obligations*. SFAS No. 143 was effective for TVA at the beginning of 2003 (see note 1 — *Impact of New Accounting Standards and Accounting Changes*).

### *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.

### *Tax Equivalents*

The TVA Act requires TVA to make payments to states and local governments where the power operations of the corporation are conducted and in which TVA has acquired properties previously subject to state and local taxation. The amount is five percent of gross receipts from the prior year's sale of power, excluding sales or deliveries to other federal agencies and off-system sales with other utilities, with a provision for minimum payments under certain circumstances.

### *Plant Cancellation*

Due to changes in the market forecast, TVA elected during 2002 not to complete a gas-fired combined-cycle plant that would have provided 510 megawatts of power in 2004. Accumulated costs of the project totaled approximately \$154 million, which TVA recognized as a loss on plant cancellation in 2002.

### *Impairment of Assets*

TVA evaluates long-lived assets for impairment when events or changes in circumstances indicate that the carrying value of such assets may not be recoverable. For long-lived assets to be held and used, TVA bases its evaluation on impairment indicators such as the nature of the assets, the future economic benefit of the assets, any historical or future profitability measurements, and other external market conditions or factors that may be present. If such impairment indicators are present or other factors exist that indicate that the carrying amount of the asset may not be recoverable, TVA determines whether an impairment has occurred based on an estimate of undiscounted cash flows attributable to the assets, as compared with the carrying value of the assets. If an impairment has occurred, the

amount of the impairment recognized is measured as the excess of the asset's carrying value over its fair value.

During 2001, 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. Disposal of these fixed assets is not affected by the impairment charge. 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.

#### *Impact of New Accounting Standards*

Effective October 1, 2002, TVA adopted SFAS No. 143, *Accounting for Asset Retirement Obligations*, which requires the recognition of a liability, and capitalization of the associated asset retirement cost as part of the carrying amount of the long-lived asset, for "legal obligations" associated with the retirement of long-lived assets that result from the acquisition, construction, development, and/or normal operation of long-lived assets. TVA identified and reviewed all relevant information in the determination of its potential asset retirement obligations ("AROs"). TVA identified three categories of AROs which represent legal obligations of TVA under the requirements set forth in the standard. Costs associated with retirement of coal-fired (including ash/waste ponds) and gas/oil turbine generating plants are being expensed as period costs while costs associated with retirement of nuclear generating plants are receiving SFAS No. 71, *Accounting for the Effects of Certain Types of Regulation*, treatment based on the partially funded status of the nuclear decommissioning obligation (see note 1 — *Cost-Based Regulation*).

*Nuclear Generating Plants.* In prior years, TVA had recognized a decommissioning liability related to its nuclear generating plants in accordance with Nuclear Regulatory Commission ("NRC") requirements. This previously recorded liability represents the pre-SFAS No. 143 obligation for TVA's nuclear plant AROs, which amounted to \$891 million at September 30, 2002. The adoption of SFAS No. 143 resulted in a change in the methodology of quantifying this nuclear decommissioning obligation in accordance with the new accounting standard. TVA has increased the nuclear decommissioning liability on the balance sheet to reflect new methodology, which amounted to \$1,421 million at September 30, 2002, but has retained its regulatory accounting treatment of capturing all changes in the liability, investment funds, and certain other deferred charges as changes in the regulatory asset instead of recording these items on the income statement. This nuclear decommissioning liability is included in the "Asset retirement obligations" line item on the 2003 Balance Sheet.

*Coal-Fired Generating Plants.* The activities associated with coal plant retirement include plant shutdown, securing the physical property, closure of storage and/or waste areas (including ash/waste ponds), maintenance of stack lights, security patrols, and measures to contain asbestos and other hazardous materials from release into the environment. The estimated costs of these activities have been included in the calculation of TVA's coal plant AROs. Certain ash ponds and waste areas have estimated useful lives that are independent of the lives of the coal plants themselves. Accordingly, these specific ash/waste pond areas were quantified as separate AROs based on their specific estimated useful lives.

*Gas/Oil Turbine Generating Plants.* The activities associated with gas and oil turbine plant retirement include annual operating costs for site security, lighting, powerhouse and grounds maintenance, containment of asbestos, paint, and other materials, and groundwater monitoring. The estimated costs of these activities have been identified to be included in the calculation of TVA's combustion turbine plant AROs.

For each ARO identified, TVA calculated the net present value of the obligation as of the current period, the original and incremental cost of the long-lived asset at the time of initial operation, the cumulative effect of depreciation on the adjusted asset base, and accretion of the liability from the date of initial operation to the current and proforma periods. The following table summarizes for each ARO category the original asset cost, the current and proforma ARO liabilities, the current fair market value of any assets legally restricted for purposes of settling the obligation (see "Management's Discussion and Analysis of Financial Condition and Results of Operations" — "Critical Accounting Policies" — "Nuclear Decommissioning Costs" and note 7 — *Investment Funds*), and the estimated future liability at the time of closure.

<u>ARO Category</u>	<u>Original Asset Cost</u>	<u>Pro-Forma October 1, 2001 Obligation</u>	<u>Pro-Forma September 30, 2002 Obligation</u>	<u>September 30, 2003 Obligation</u>	<u>Fair Market Value of Assets</u>	<u>Estimated Future Liability</u>
<b>(in millions)</b>						
Nuclear Plants	\$ 470	\$ 1,345	\$ 1,421	\$ 1,510	\$ 632	\$ 10,493
Coal-Fired Plants	19	191	202	214	N/A	1,021
Gas/Oil Turbine Plants	1	1	1	1	N/A	42
Total	<u>\$ 490</u>	<u>\$ 1,537</u>	<u>\$ 1,624</u>	<u>\$ 1,725</u>	<u>\$ 632</u>	<u>\$ 11,556</u>

During 2003, an ARO layer was added to the nuclear plant ARO category for the addition of steam generators at the Sequoyah plant. The result was an increase to the original cost of nuclear plant assets of \$9 million and a corresponding increase in nuclear plant retirement obligation of \$9 million at September 30, 2003.

The asset retirement obligation increased \$101 million during 2003 due to accretion expense of \$92 million and the addition of a new layer of \$9 million for the Sequoyah Nuclear Plant. The nuclear accretion expense of \$80 million was deferred and charged to a regulatory asset in accordance with SFAS No. 71. The remaining accretion expense of \$12 million, related to coal-fired and gas/oil plants, was expensed in 2003. See note 9 — *Contingencies — Decommissioning Costs* for effects of adoption of this standard.

Effective October 1, 2002, TVA adopted Emerging Issues Task Force Issue (“EITF”) No. 02-3, *Issues Related to Accounting for Contracts Involved in Energy Trading and Risk Management Activities*. EITF No. 02-3 rescinded EITF No. 98-10, *Accounting for Contracts Involved in Energy Trading and Risk Management Activities*, and reached two general conclusions:

- Energy trading contracts that do not meet the definition of a derivative under SFAS No. 133 should not be marked to fair market value, and
- Revenues should be shown in the income statement net of costs associated with trading activities, whether or not the trades are physically settled, if the derivative instruments are held for trading purposes. In addition, entities may simply choose to designate and report transactions on a net basis for ease of administration even though such transactions do not meet the strict definition of trading activities.

As a matter of policy and practice, TVA does not engage in trading activities as defined by the EITF as “active and frequent buying and selling...with the objective of generating profits on short-term differences in price.” Rather, TVA makes purchases and sales decisions based on projected TVA system demand and supply positions. Under certain circumstances, TVA may find that it has purchased power commitments from others that turn out to be in excess of TVA system needs due to changing operating conditions (such as weather, TVA plant availability, transmission constraints, etc.) or changing economic conditions and TVA ultimately sells that surplus power to exchange power customers. Conversely, TVA also may need to purchase power from others to meet pre-existing sales commitments to others due to similar changing operating or economic conditions that impact the availability or deliverability of TVA system resources.

TVA does not differentiate between those transactions that are entered into based on changing operating conditions or those entered into based on changing market conditions. Accordingly, TVA refers to all of these types of transactions as “displacement purchases and sales.” These displacement purchases and sales are usually transacted within days or hours of each other. In very limited situations, a purchase and sale transaction might be entered into at essentially the same time for the same quantity and for the same delivery time. For instance, at the time that a sales transaction is made from system resources at a certain price based upon an expected system cost projection, a purchase opportunity from the market for the system might also be immediately available that is priced less than or equal to the expected system cost. In that situation, the purchase transaction might be made to immediately support the system in meeting the initial sales commitment to mitigate the risk exposure due to the uncertainty in predicting the expected system cost.

TVA reports its displacement purchases and sales on a net basis in the Federal agencies and other revenue line item on the Income Statements. During 2003, 2002, and 2001, TVA had net gains from displacement transactions of \$7.0 million, \$5.7 million, and \$16.7 million, respectively. In addition, the total volume of these displaced transac-

tions during 2003, 2002, and 2001 was 1,240,325 megawatt-hours, 1,357,836 megawatt-hours, and 2,304,031 megawatt-hours, respectively. As a result of adopting this new standard, revenue and purchased power expense in prior periods have been restated to conform to the current year presentation. There was no impact on net income (loss) in any period. The adoption of this new standard reduced revenue and purchased power expense by \$36 million, \$35 million, and \$100 million for the years ended September 30, 2003, 2002, and 2001, respectively.

Effective January 1, 2003, TVA adopted Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*. The interpretation elaborates on the existing disclosure requirements for most guarantees such as standby letters of credit. It also clarifies that at the time a company issues a guarantee, the company must recognize an initial liability for the fair value, or market value, of the obligations it assumes under that guarantee and must disclose that information in its interim and annual financial statements. The initial recognition and initial measurement provisions apply on a prospective basis to guarantees issued or modified after December 31, 2002, regardless of the guarantor's fiscal year-end. At this time, TVA does not have any guarantees meeting the criteria of the interpretation.

Effective July 1, 2003, TVA adopted SFAS No. 149, *Amendment of Statement 133 on Derivative Instruments and Hedging Activities*. The statement clarifies under what circumstances a contract with an initial net investment meets the characteristics of a derivative as discussed in SFAS No. 133. In addition, it clarifies when a derivative contains a financing component that warrants special reporting in the statement of cash flows. The statement is effective for contracts entered into or modified after June 30, 2003, and should be applied prospectively. The adoption of SFAS No. 149 has had no effect on TVA as it currently reports these types of transactions in accordance with the standard.

In January 2003, the Financial Accounting Standards Board ("FASB") published Interpretation No. 46, *Consolidation of Variable Interest Entities*. This interpretation explains how to identify variable interest entities and how an enterprise assesses its interests in a variable interest entity to decide whether to consolidate that entity. It also clarifies the application of Accounting Research Bulletin No. 51, *Consolidated Financial Statements*, to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The interpretation applies to nonpublic enterprises and becomes effective for TVA beginning October 1, 2005. At this time, TVA is in the process of evaluating the requirements of this statement but does not know whether the impact of implementation of this standard will be material to its results of operations or financial position.

At its August 13, 2003 meeting, the EITF ratified its consensus on Issue No. 03-11, *Reporting Gains and Losses on Derivative Instruments That Are Subject to FASB Statement No. 133, Accounting for Derivative Instruments and Hedging Activities, and Not Held for Trading Purposes*. The EITF determined that the decision of whether realized gains and losses on physically settled derivative contracts not held for trading purposes should be reported in the income statement on a gross or net basis is a matter of judgment that depends on relevant facts and circumstances. Consideration of the facts and circumstances should be made in the context of the various activities of the entity rather than solely on the terms of the individual contracts. The adoption of EITF Issue No. 03-11, beginning October 1, 2003, is not expected to have a material effect on TVA's results of operations or financial position.

#### *Accounting Changes*

Effective October 1, 2002, the Board approved a change in the methodology for estimating unbilled revenue from electricity sales. The change in calculating unbilled revenue was from a method using cumulative generation to a method that uses only generation for the current billing period. The impact of this change resulted in an increase in accounts receivable of \$412 million with a corresponding cumulative effect gain for the change in accounting for unbilled revenue.

In addition, adoption of SFAS No. 143, *Accounting for Asset Retirement Obligations*, resulted in a cumulative effect charge to income of \$195 million, a corresponding additional long-term liability of \$734 million, an increase in assets of \$745 million, and an increase in accumulated depreciation of \$206 million.

Pro-forma net income (loss) amounts for 2002 and 2001, assuming that the changes in accounting had been applied retroactively, are as follows:

(in millions)	September 30	
	2002	2001
Historical net income (loss) . . . . .	\$ 73	\$ (3,311)
Accounting changes		
Unbilled revenue . . . . .	81	29
Adoption of SFAS No. 143 . . . . .	(10)	(10)
Pro-Forma net income (loss) . . . . .	<u>\$ 144</u>	<u>\$ (3,292)</u>

## 2. Nuclear Power Program

The nuclear power program at September 30, 2003, consisted of nine units - five operating, three deferred, and one in recovery—at four locations, with investments in property, plant, and equipment as follows and in the status indicated:

	Operating Units	Installed Capacity (MW)	Completed Plant, Net	Construction in Progress	Deferred	Fuel Investment
(dollars in millions)						
Browns Ferry*	2	2,380	\$ 2,490	\$ 492	\$ —	\$ 193
Sequoyah	2	2,442	1,929	49	—	109
Watts Bar	1	1,270	5,835	18	—	57
Bellefonte	—	—	—	—	4,110	—
Raw materials	—	—	—	—	—	20
Total	<u>5</u>	<u>6,092</u>	<u>\$ 10,254</u>	<u>\$ 559</u>	<u>\$ 4,110</u>	<u>\$ 379</u>

Note

\* Browns Ferry Unit 1, a recovering unit, is discussed below.

Browns Ferry Unit 1 was taken offline in 1985 for modifications and improvements and will continue to remain in an inoperative status until recovered. In May 2002, the TVA Board initiated activities for the return of Unit 1 to service in order to meet long-term power requirements. The decision was made upon completion of the Detailed Scoping, Estimating and Planning project and the Final Supplemental Environmental Impact Statement, which demonstrated that Unit 1 can be returned to safe operation in a controlled manner and that operating the unit will have no significant, adverse impacts on the environment. TVA has determined that restarting Unit 1 is the best alternative currently available among the mix of generation options. It is anticipated the Unit 1 recovery project will add approximately 1,280 megawatts of generation at a cost of approximately \$1.8 billion, exclusive of AFUDC. Unit 1 is expected to return to service in 2007, and the additional generating capacity is expected to lower the average cost of power and provide additional cash flow. The undepreciated cost of Unit 1 of \$39 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. At September 30, 2003, TVA had incurred approximately \$406 million of costs on the restart project, and the project was approximately 32 percent complete.

TVA has three units in deferred status. In 1988, TVA suspended construction activities on Watts Bar Unit 2 and the unit is currently in lay-up. Bellefonte Units 1 and 2 were deferred in 1988 and 1985, respectively. Estimated 2004 expenditures for the three deferred units are limited to lay-up, maintenance, and ensuring that options for the use of the units remain viable.

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 value of some of its existing assets was not appropriate in a competitive marketplace. Certain nuclear assets, portions of Bellefonte Units 1 and 2 and Watts Bar Unit 2 in its entirety, were identified as assets where the estimated future cash flows provided through future rates were likely to be less than recorded book values. Consequently, in 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*).

In December 2003, TVA submitted an application to the Nuclear Regulatory Commission for a 20-year renewal of the operating licenses for three reactors at Browns Ferry Nuclear Plant. Current expiration dates for the Browns Ferry units are:

Browns Ferry Unit 1	.....	2013
Browns Ferry Unit 2	.....	2014
Browns Ferry Unit 3	.....	2016

The original 40-year term on licenses per the Atomic Energy Act and the NRC regulations was based on economic and antitrust considerations-not on limitations of technology. If the NRC approves the application, it will allow TVA to continue production of power from the facility until 2033, 2034, and 2036 for units 1, 2, and 3, respectively.

### 3. Completed Plant - Power Program

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

(in millions)	2003			2002		
	Cost	Accumulated Depreciation	Net	Cost	Accumulated Depreciation	Net
Fossil	\$ 9,114	\$ 4,394	\$ 4,720	\$ 8,579	\$ 4,117	\$ 4,462
Combustion Turbine	1,168	345	823	1,157	292	865
Nuclear	15,397	5,143	10,254	14,778	4,495	10,283
Transmission	4,030	1,340	2,690	3,847	1,284	2,563
Hydro	1,751	588	1,163	1,665	570	1,095
Other	1,166	441	725	1,181	404	777
Total	<u>\$ 32,626</u>	<u>\$ 12,251</u>	<u>\$ 20,375</u>	<u>\$ 31,207</u>	<u>\$ 11,162</u>	<u>\$ 20,045</u>

### 4. Proprietary Capital

#### *Appropriation Investment — Power Program*

The TVA Act requires TVA to make annual payments to the 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 2003, 2002, and 2001 as a repayment of the appropriation investment. In addition, TVA paid the Treasury \$22 million in 2003, \$30 million in 2002, and \$35 million in 2001 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 Treasury on its total marketable public obligations as of the same date. These rates were 4.63 percent, 5.82 percent, and 6.63 percent at September 30, 2003, 2002, and 2001, respectively. Cumulative repayments and return on investment paid by TVA's power program to the Treasury approximate \$3.5 billion on the government's appropriation investment of \$1.4 billion, approximately \$975 million of which TVA has repaid.

#### *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 accumulated other comprehensive loss were \$74 million for 2003, \$150 million for 2002, and \$106 million for 2001 due to market valuation adjustments for certain derivative instruments (see note 1 — *Impact of New Accounting Standards* and note 5).



**Total Other Comprehensive Income (Loss) Activity**  
(in millions)

Accumulated other comprehensive loss, September 30, 2000	\$ —
Interest rate swap	5
Foreign currency swaps	26
Electricity purchase options	<u>20</u>
Cumulative effect of adoption of SFAS No. 133 at October 1, 2000	51
Changes in fair value:	
Interest rate swap	(34)
Foreign currency swaps	(103)
Electricity purchase options	<u>(20)</u>
Accumulated other comprehensive loss, September 30, 2001	(106)
Changes in fair value:	
Interest rate swap	10
Foreign currency swaps	<u>(54)</u>
Accumulated other comprehensive loss, September 30, 2002	(150)
Changes in fair value:	
Interest rate swap	13
Foreign currency swaps	<u>63</u>
Accumulated other comprehensive loss, September 30, 2003	<u><u>\$ (74)</u></u>

**5. Risk Management Activities and Derivative Transactions**

TVA's Risk Management Committee 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, 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*, as amended by SFAS No. 138, *Accounting for Certain Derivative Instruments and Certain Hedging Activities*, and SFAS No. 149, *Amendment of Statement 133 on Derivative Instruments and Hedging Activities*.

The recorded amounts of these derivative financial instruments are as follows:

**Mark-to-Market Values of TVA Derivatives  
at September 30  
(in millions)**

	<u>2003 Balance Asset/(Liability)</u>	<u>2002 Balance Asset/(Liability)</u>	<u>2003 Notional Amount</u>	<u>Year of Expiration</u>
Interest rate swap .....	\$ 42	\$ 22	\$300 million	2007
Currency swaps:				
Deutschemark .....	(149)	(328)	DM1.5 billion	2006
Sterling .....	(9)	(35)	GBP200 million	2021
Sterling .....	44	13	GBP250 million	2032
Sterling .....	11	-	GBP150 million	2043
Swaptions:				
Call provision on \$1 billion bond issue .....	(207)	-	\$1 billion	2042
Call provision on \$476 million bond issue .....	(111)	-	\$476 million	2044
Debt-embedded calls:				
Call provision on \$1 billion bond issue .....	169	-	\$1 billion	2042
Call provision on \$476 million bond issue .....	91	-	\$476 million	2044
Coal contracts-volume options .....	45	1	53 million tons	2009
Purchase power contracts .....	(50)	-	500 MW for a 16 hour period each day from June 1, 2004 through May 31, 2007 plus a capacity charge of \$2.975 million per month for 36 months	2007

In accordance with SFAS No. 133, certain interest rate and foreign currency swap contracts are accounted for on a mark-to-market basis and resulted in a gain/(loss) of \$76 million, \$(44) million, and \$(106) million for 2003, 2002, and 2001, respectively. Since such contracts represent cash flow hedges of certain commodity and debt transactions, the gains/(losses) have been recognized in accumulated other comprehensive loss. Because of the highly effective nature of its hedging transactions, TVA was not required to recognize gains/(losses) in the Statements of Income. If any loss/(gain) were to be incurred as a result of the early termination of an interest rate swap contract, any resulting charge/(income) would be amortized over the remaining life of the associated 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 purchases and normal sales 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 purchases and normal sales 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. The overall effective cost to TVA of these bonds and the associated swap was 7.13 percent. TVA also entered into currency swap contracts during 2003, 2001, and 1999 as hedges for sterling-denominated debt transactions in which TVA issued £150 million, £250 million, and £200 million of bonds, respectively. The overall effective costs to TVA of these bonds and the associated swaps were 4.96 percent, 6.59 percent, and 5.81 percent, respectively. Any gains or losses on the debt instruments due to the foreign currency transactions are offset by losses or gains on the swap contracts. At September 30, 2003 and 2002, the currency transactions had resulted in net translation gains of \$35 million and \$220 million, respectively, which are included in the account Unamortized discount and other adjustments. However, the net translation gains were offset by corresponding losses on the swap contracts, which are reported as a deferred liability. Additionally, in 1997 TVA issued \$300 million of inflation-indexed accreting principal bonds. The ten-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 receive-floating, pay-fixed interest rate swap agreement. The overall effective cost to TVA of these bonds and the associated swap was 6.64 percent.

### *Call Monetizations*

During 2003, TVA monetized the call provisions on a \$1 billion public bond issue and a \$476 million public bond issue by entering into swaption agreements with a third party in exchange for \$175 million and \$81 million, respectively. The swaptions essentially grant the holder of the swaptions the right to exercise the embedded call provisions of the bonds while TVA continues to pay the holder of the swaptions pursuant to the original bond issuances. The swaptions are recorded in other liabilities on the balance sheet and are designated as hedges of the future changes in the fair value of the original call provisions. Under SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, TVA will mark-to-market both the swaptions and the embedded call. Historically, these values have been highly correlated; however, to the extent that the values do not perfectly offset, any differences are recognized currently through earnings. TVA recognized a noncash ineffectiveness loss of \$7 million in 2003.

### *Pilot Program*

A financial trading pilot program to reduce TVA's economic risk exposure associated with TVA's physical electric generation, purchases, and sales was approved by the Board on September 11, 2003. The program allows TVA to trade certain futures contracts and options on futures contracts for hedging purposes only. Trading covered by this authorization will be for the purpose of hedging risks associated with the cost of natural gas and fuel oil for TVA's power generation operations and risks under power purchase or sale arrangements where the energy price varies based upon a fuel index. Trading of authorized futures contracts and options on futures contracts shall be limited solely to those transactions that hedge or otherwise limit economic risks directly associated with TVA's fuel requirements for power generation or with the aforementioned type of power purchase or sale arrangement. Transactions shall be limited to trading of the NYMEX futures contracts and options on futures contracts related to natural gas and fuel oil. Trading shall not be authorized for speculative purposes. The pilot program shall end on August 31, 2005. No trades were made in 2003.

## **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 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, 2003, 2002, and 2001, were 1.00 percent, 1.74 percent, and 2.90 percent, respectively. During 2003, 2002, and 2001, the maximum outstanding balances of short-term borrowings held by the public were (in millions) \$3,425, \$3,497, and \$3,459, respectively. For these same years, the average amounts (and weighted average interest rates)

of short-term borrowings were approximately (in millions) \$2,818 (1.28 percent), \$2,290 (1.95 percent), and \$1,994 (4.90 percent), respectively.

TVA also has access to financing arrangements with the U.S. Treasury, whereby it is authorized to accept a short-term note with the maturity of one year in an amount not to exceed \$150 million. TVA may draw any portion of the authorized \$150 million during the year. Interest is accrued daily and paid quarterly at a rate determined by the Secretary of the Treasury each month based on the average rate on outstanding marketable obligations of the United States with maturities of one year or less. During 2003, 2002, and 2001 the daily average amounts outstanding (and average interest rates) were approximately (in millions) \$12 (1.33 percent), \$5 (2.23 percent), and \$38 (5.31 percent), respectively.

#### *Put and Call Options*

Bond issues of \$2.9 billion held by the public are redeemable in whole or in part, at TVA's option, on call dates ranging from the present to 2020 and at call prices ranging from 100 percent to 106 percent of the principal amount. Additionally, TVA has bond issues of \$3.2 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; a third issue totaling \$600 million, which matures in December 2016, is redeemable in 2007 at the option of the bondholders; and a fourth issue totaling \$936 million, which matures in May 2012, is redeemable in 2004 at the option of the bondholders. Each of these issues is reported in the debt schedule with maturity dates corresponding to the earliest redemption dates. Forty-seven issues totaling \$1.3 billion, with maturity dates ranging from 2007 to 2030, include a "survivor's option," which allows for right of redemption upon the death of a beneficial owner in certain specified circumstances. There is no accounting difference between a "survivor's option" put and a "regular" put on a put bond.

Additionally, TVA has two issues of Putable Automatic Rate Reset Securities ("PARRS") outstanding. After a fixed-rate period of five years, the coupon rate on the PARRS may automatically be reset downward under certain market conditions on an annual basis. Investors have the option to redeem the bonds at par if and when the interest rate is reset. One PARRS issue totals \$552 million, matures in June 2028, and had its first potential reset date in June 2003. The rate reset to 5.95 percent from 6.75 percent and approximately \$23 million of the original \$575 million 1998 series D PARRS were redeemed. The second issue of PARRS totals \$525 million, matures in May 2029, and has its first potential rate reset date in May 2004. If the potential reset rate is less than the current coupon on the bond, the bond automatically resets to the lower rate. If the coupon rate is reset, the bondholders have the option to put their bonds back to TVA.

#### *Debt Outstanding*

Debt outstanding at September 30, 2003 and 2002, consisted of the following:

(in millions)	<u>2003</u>	<u>2002</u>
<b>Short-term debt</b>		
Discount notes (net of discount) . . . . .	\$ 2,080	\$ 3,492
Current maturities of long-term debt - 4.75% to 6.79% . . . . .	<u>2,336</u>	<u>—</u>
Total short-term debt . . . . .	4,416	3,492
<b>Long-term debt</b>		
Maturing in 2004 - 4.75% to 6.79% . . . . .	—	2,336
Maturing in 2005 - 6.375% to 7.15% . . . . .	2,000	2,065
Maturing in 2006 - 5.88% to 7.125% . . . . .	2,621	2,621
Maturing in 2007 - 3.50% to 6.643% . . . . .	975	1,051
Maturing in 2008 - 2.45% to 3.30% . . . . .	91	—
Maturing in 2009 - 4.625% to 5.375% . . . . .	2,000	2,029
Maturing in 2010 through 2045 - 3.50% to 8.25% . . . . .	<u>12,772</u>	<u>11,661</u>
Total long-term debt . . . . .	<u>20,459</u>	<u>21,763</u>
<b>Total indebtedness</b> . . . . .	<u>\$ 24,875</u>	<u>\$ 25,255</u>

#### Note

The above table excludes net translation gains from currency transactions of \$35 million and \$220 million for the years ended September 30, 2003 and 2002, respectively, which are included in the account Unamortized discount and other adjustments.

### *Interest and Capital Costs*

During 2003, 2002, and 2001, cash paid for interest on outstanding indebtedness (net of amount capitalized) was \$1,332 million, \$1,414 million, and \$1,471 million, respectively. In addition to paying interest on outstanding indebtedness, TVA is required by the TVA Act to make annual payments to the Treasury. The annual Treasury payments represent a repayment of the appropriation investment, along with a return on the appropriation investment (see note 4 — *Appropriation Investment — Power Program*).

## **7. Fair Value of Financial Instruments**

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, 2003, 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.

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

(in millions)	All Programs			
	2003		2002	
	Carrying Amount	Fair Amount	Carrying Amount	Fair Amount
Cash and cash equivalents	\$ 533	\$ 533	\$ 400	\$ 400
Investment funds	905	905	659	659
Loans and other long-term receivables	191	191	161	161
Short-term debt, net of discount	2,080	2,080	3,492	3,492
Long-term debt (including current portion), net of discount	22,537	24,958	21,358	23,767
Other financing obligations	1,233	1,233	559	559

### *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*

Information on investments by major type at September 30 is as follows:

(in millions)	2003	2002
Equity securities held as trading	\$ 632	\$ 503
Debt securities held-to-maturity	267	149
Other	6	7
Total investment funds	<u>\$ 905</u>	<u>\$ 659</u>

These investments were primarily classified as trading securities and held-to-maturity securities. Gains and losses on trading securities are recognized in current earnings and subsequently reclassified to a regulatory asset account in accordance with TVA's decommissioning accounting policy (see note 1 — *Decommissioning Costs*). The fund had unrealized gains of \$129 million in 2003, unrealized losses of \$97 million in 2002, and unrealized losses of \$233 million in 2001. Held-to-maturity securities, purchased during September 2003 and 2002, mature within one year and because of their short term nature, approximate market value and are accounted for at amortized cost.

### *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 market price at the balance sheet date.

### *Other Financing Obligations*

In 2003, 2002, and 2000, TVA received approximately \$325 million, \$320 million, and \$300 million, respectively, in proceeds by entering into lease/leaseback transactions for 24 new peaking combustion turbine units. TVA also received approximately \$389 million in proceeds by entering into a lease/leaseback transaction for qualified technological equipment in 2003. Due to the nature of the transactions, the carrying amount of the obligation and the fair market value are equal. At September 30, 2003 and 2002, the total balances of the obligations were \$1,239 million and \$561 million, respectively.

Due to TVA's continuing involvement in the operation and maintenance of the leased units and equipment, and its control over the distribution of power produced by the facilities during the leaseback term, TVA accounted for the respective lease proceeds of \$714 million, \$320 million, and \$300 million as financing obligations as required in accordance with SFAS No. 66, *Accounting for Sales of Real Estate*, and SFAS No. 98, *Accounting for Leases*. Accordingly, the outstanding financing obligations of \$1,239 million at September 30, 2003 and \$561 million at September 30, 2002 are included in Current liabilities (\$68 million and \$18 million, respectively) and Other liabilities (\$1,171 million and \$543 million, respectively) in TVA's 2003 and 2002 year-end Balance Sheets. Cost of financing related to these lease/leaseback transactions is \$598 million as of September 30, 2003 and \$301 million as of September 30, 2002.

## **8. Benefit Plans**

### *Actuarial Assumptions*

TVA utilizes professional actuaries to perform valuation services related to the areas of pension, postretirement, and postemployment benefits. During 2003, TVA transitioned actuaries through a process in which both sets of actuaries performed calculations of the benefit obligations and other estimates inherent in the valuations of 2002. Since the 2002 valuations serve as the basis for amounts recorded in 2003, differences in actuarially calculated estimates were reconciled. Adjustments proposed by both predecessor and successor actuaries have been included in current year expense and reflected as amendments in the disclosure tables of the related pension and postretirement benefits obligations that follow.

Net periodic pension cost is determined using assumptions as of the beginning of each year. Funded status is determined using assumptions as of the end of each year. The valuations performed at the end of 2003 were based on actuarial assumptions that were consistent for all of TVA's benefit plans. For 2003, TVA recognized pension expense of \$41 million, postretirement benefit expense of \$36 million, and postemployment expense of \$90 million.

### *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.

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, with the provision that the rate may not be less than 6.0 percent or more than 10.0 percent. The actual change in the CPI for 2003 and 2002 was 1.5 percent and 3.1 percent, which resulted in interest rates of 6.0 percent and 6.1 percent, respectively.

Members of both the Original Benefit Structure and the Cash Balance Benefit Structure can also become eligible for a vested supplemental pension benefit, based on age and years of service, which is designed to help retirees offset the cost of medical insurance.

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.

Effective for the September 30, 2003 measurement date and the calculation of funded status, the discount rate was reduced from 7.05 percent to 6.00 percent. The cost of living rate was maintained at 2.3 percent to reflect current market and demographic conditions. Additionally, TVA maintained its assumption related to mortality based on results of an experience study performed during the prior year which underlies the use of 1983 mortality tables.

As a result of these changes, the September 30, 2003, projected benefit obligation, or PBO, increased by approximately \$1,049 million. The change in the PBO was comprised of an increase of \$198 million due to normal operation of the plan (in the form of service cost and interest accruals, etc.), an increase of \$697 million due to the change in discount rate, and an increase of \$154 million due to other actuarial adjustments and experience losses. The changes in assumptions had no effect on pension costs for 2003, 2002, or 2001 but will increase pension expense for 2004 by approximately \$137 million compared to 2003.

The assumptions utilized to measure net periodic pension cost and the projected benefit obligations are as follows:

	<u>2003</u>	<u>2002</u>	<u>2001</u>
Discount rate . . . . .	6.00	7.05	7.50
Cost of living rate . . . . .	2.30	2.30	3.00
Expected long-term rate of return . . . . .	8.50	8.00	9.00
Average increase in compensation . . . . .	3–8%	3–8%	3–8%

On July 31, 2003, the United States District Court for the Southern District of Illinois held that the formula used in IBM's cash balance pension plan violated the age discrimination provisions of the Employee Retirement Income Security Act of 1974. The IBM decision, however, conflicts with the decisions from two other district courts and with the proposed regulations for cash balance plans issued by the IRS in December 2002. IBM has announced that it will appeal the decision to the U.S. Circuit Court of Appeals for the Seventh Circuit. The TVARS cash balance benefit plan is similar in some respects to the IBM plan. It is unclear at this time whether the IBM decision will have any effect on the TVARS cash balance benefit plan.

*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, including the vested supplemental pension benefit.

The annual assumed cost trend for covered benefits was 8.5 percent in 2003, decreasing by one-half percent per year to a level of 5.0 percent in 2009 and thereafter. For 2002 and 2001, annual trend rates of 8.5 percent and 8.5 percent, respectively, were assumed. The effect of the change in assumptions on the cost basis was not significant. Increasing/(reducing) the assumed health-care cost trend rates by one percent would increase/(reduce) the accumulated postretirement benefit obligation ("APBO") as of September 30, 2003, by \$54 million/(\$58 million) and the aggregated service and interest cost components of net periodic postretirement benefit cost for 2003 by \$4 million/(\$4 million).

The weighted average discount rate used in determining the APBO was 6.00 percent for 2003, 7.05 percent for 2002, and 7.50 percent for 2001. Any net unrecognized gain or loss resulting from experience different from that assumed or from changes in assumptions, and exceeding ten percent of the APBO, is amortized over the average remaining service period of active plan participants.

The assumptions utilized to measure other postretirement benefits are as follows:

	<u>2003</u>	<u>2002</u>	<u>2001</u>
Discount rate .....	6.00	7.05	7.50
Health-care trend rate .....	8.50	8.50	8.50
Cost of living rate .....	2.30	2.30	3.00
Assumed ultimate trend rate .....	5.00	5.00	5.00
Assumed ultimate trend rate to be reached in year .....	2010	2009	2009

As a result of the changes in actuarial assumptions and other actuarial adjustments, the 2003 APBO for postretirement benefits decreased approximately \$117 million. The change in the obligation was comprised of an \$8 million increase due to normal operation of the plan (in the form of service cost and interest accruals, etc.), an increase of about \$44 million due to the change in discount rate, and a decrease of \$169 million due to other actuarial and experience adjustments. The \$169 million decrease in the obligation was comprised of an actuarial transition adjustment of \$102 million and a favorable experience adjustment of \$67 million. The changes in assumptions had no effect on postretirement benefit costs for 2003, 2002, or 2001 but, when coupled with further experience adjustments related to claims and contributions, will decrease postretirement benefits expense for 2004 by approximately \$7 million compared to 2003.

Effective July 1, 2002 (applied retroactively to January 1, 2002), TVA changed its retiree medical plan to provide an enhanced TVA contribution for certain retirees who retired with 20 or more years of service and are eligible for the supplemental pension benefit from TVARS. The benefit is in the form of a credit provided by TVA to eligible retirees to help offset the cost of medical premiums. The additional benefit increased the accumulated postretirement benefit obligation approximately \$97 million at the end of 2002. Pursuant to SFAS No. 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions*, the increase in cost is combined with the existing net unrecognized prior service cost and amortized to expense over future periods. Expense for 2003 increased approximately \$17 million (from \$19 million in 2002 to \$36 million in 2003) due primarily to the additional prior service cost amortization and corresponding increases in service cost and interest cost coupled with changes in demographic information and actuarial assumptions.



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

(in millions)	Pension Benefits		Other Postretirement Benefits	
	2003	2002	2003	2002
<b>Change in benefit obligation</b>				
Benefit obligation at beginning of year	\$ 5,901	\$ 5,958	\$ 431	\$ 221
Service cost	90	87	6	4
Interest cost	411	434	23	16
Plan participants' contributions	42	36	51	51
Amendments, including special events	96	—	(102)	199
Actuarial (gain)/loss	755	(289)	(23)	4
Net transfers from variable fund/401(k) plan	9	9	—	—
Expenses paid	(4)	(4)	—	—
Benefits paid	(350)	(330)	(72)	(64)
<b>Benefit obligation at end of year</b>	<b>\$ 6,950</b>	<b>\$ 5,901</b>	<b>\$ 314</b>	<b>\$ 431</b>
<b>Change in plan assets</b>				
Fair value of plan assets at beginning of year	\$ 5,087	\$ 5,878	\$ —	\$ —
Adjustment to reconcile to system asset value	1	(5)	—	—
Actual return on plan assets	1,145	(497)	—	—
Plan participants' contributions	42	36	51	51
Net transfers from variable fund/401(k) plan	9	9	—	—
Employer contributions	—	—	21	13
Expenses paid	(4)	(4)	—	—
Benefits paid	(350)	(330)	(72)	(64)
<b>Fair value of plan assets at end of year</b>	<b>\$ 5,930</b>	<b>\$ 5,087</b>	<b>\$ —</b>	<b>\$ —</b>
Funded status	\$ (1,020)	\$ (814)	\$ (314)	\$ (431)
Unrecognized net actuarial loss	1,430	1,229	37	63
Unrecognized prior service cost	383	419	54	161
<b>Prepaid (accrued) benefit cost</b>	<b>\$ 793</b>	<b>\$ 834</b>	<b>\$ (223)</b>	<b>\$ (207)</b>
<b>Amount recognized in statement of financial position</b>				
Accrued benefit liability	\$ (618)	\$ (481)	\$ (223)	\$ (207)
Intangible asset	383	419	—	—
Regulatory asset	1,028	896	—	—
<b>Net amount recognized</b>	<b>\$ 793</b>	<b>\$ 834</b>	<b>\$ (223)</b>	<b>\$ (207)</b>

(in millions)	Pension Benefits			Other Postretirement Benefits		
	2003	2002	2001	2003	2002	2001
<b>Components of net periodic benefit cost</b>						
Service cost	\$ 90	\$ 87	\$ 78	\$ 6	\$ 4	\$ 2
Interest cost	411	434	424	23	16	10
Expected return on plan assets	(496)	(597)	(599)	n/a	n/a	n/a
Amortization of prior service cost	36	36	36	5	(4)	(4)
Amortization of transition obligation	—	—	—	—	—	—
Recognized net actuarial (gain)/loss	—	—	(39)	2	3	(2)
Net periodic benefit cost/(income)	41	(40)	(100)	36	19	6
Special events	—	—	—	—	—	—
<b>Total benefits cost/(income)</b>	<b>\$ 41</b>	<b>\$ (40)</b>	<b>\$ (100)</b>	<b>\$ 36</b>	<b>\$ 19</b>	<b>\$ 6</b>

### 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. TVA recognizes these costs as incurred.

Postemployment benefit cost estimates are revised to properly reflect changes in actuarial assumptions made at the end of the year. As a result of changes in actuarial assumptions, the 2003 projection of ultimate loss related to the workers' compensation postemployment benefit obligation was approximately \$27 million greater than expected and resulted in total expense of \$90 million for the year. The \$27 million increase in expense can be attributed almost entirely to the change in the actuarial discount rate. The changes in assumptions had no effect on postemployment benefits expense for 2002 or 2001 but will likely decrease postemployment benefits expense for 2004 compared to 2003.

### 9. Commitments and Contingencies

As of September 30, the amounts of contractual cash obligations maturing in each of the next five years and thereafter are shown below:

(in millions)	2004	2005	2006	2007	2008	Thereafter	Total
Leases	\$ 56	\$ 53	\$ 48	\$ 41	\$ 35	\$ 92	\$ 325
Lease/leaseback transactions	110	84	85	85	89	1,384	1,837
Power purchase obligations	132	146	146	125	110	2,525	3,184
Other obligations	786	621	446	252	85	96	2,286
Fuel purchase obligations	1,212	759	488	332	273	316	3,380
Total	\$ 2,296	\$ 1,663	\$ 1,213	\$ 835	\$ 592	\$ 4,413	\$ 11,012

#### Commitments

**Leases.** Certain property, plant, and equipment are leased under agreements with terms ranging from one to 30 years. Obligations under capital lease agreements in effect at September 30, 2003, total \$36 million annually through 2007, \$33 million in 2008, and an aggregate of \$88 million thereafter, for a total commitment of \$265 million. Of this amount, \$113 million represents the cost of financing. Obligations under non-cancelable operating lease agreements in effect at September 30, 2003, total \$20 million for 2004, \$17 million for 2005, \$12 million for 2006, \$5 million for 2007, \$2 million for 2008, and \$4 million thereafter for a total commitment of \$60 million.

**Lease/Leaseback Transactions.** Obligations under combustion turbine and qualified technological equipment lease/leaseback transactions in effect at September 30, 2003, total \$110 million for 2004, \$84 million for 2005, \$85 million annually for 2006 and 2007, \$89 million for 2008, and an aggregate of \$1,384 million thereafter, for a total commitment of \$1,837 million. Of this amount, \$598 million represents the cost of financing.

**Power Purchase Obligations.** TVA has an agreement for the purchase of power from a 440 megawatt, lignite-fired electric generating plant that requires TVA to purchase the plant's output for a 30-year period which began in April 2002. Pricing of the contract includes fixed and variable components with estimated power purchases approximating \$3 billion over the remainder of the contract term. TVA also entered into a long-term power supply agreement with another generator. This commitment extends through May 2007 with a future obligation for demand charges in the amount of \$107 million based on a 500 megawatt contract quantity. Agreements to purchase power are in place with respect to four other projects. These four contracts are for durations of up to 12 years, the earliest of which began in 2000. Payments for the remainder of the terms of the four contracts are estimated to be approximately \$27 million. Costs under these contracts are included in Fuel and purchased power expense on the Statements of Income and are expensed as incurred.

Under the Public Utility Regulatory Policies Act of 1978, TVA is obligated to purchase power from qualifying facilities. There are currently two independent power producers that qualify under this program, and as a result TVA could be required to take up to 1,600 megawatts of power during certain on-peak hours from these facilities, depending on

the amount of power put on the system. Costs associated with these purchases are based on rates as specified in "Attachment A" of the *Dispersed Power Production Guidelines for TVA and the Distributors of TVA Power* as approved annually by the Board.

TVA also has an agreement with the Southeastern Power Administration to receive 405 megawatts of net dependable capacity from the Cumberland River Basin Projects for use in the TVA system. TVA receives a yearly energy allocation of 607,500 megawatt hours which is based on the reserved capacity. Once this allocation is exceeded, TVA is assessed an additional energy charge for the excess generation received based on rates as specified in the *Federal Register*.

*Other Obligations.* Other obligations of \$2.3 billion consist of contracts and purchase orders negotiated as of September 30, 2003, for goods and services primarily related to capital projects as well as other major recurring operating costs. TVA has approximately \$1.9 billion in long-term construction commitments consisting primarily of the purchase of generating assets (including Browns Ferry Unit 1), and emission control equipment. Terms of certain contracts extend into 2023. In addition to construction commitments, TVA is committed under various other contracts for recurring goods and services of \$400 million with terms extending into 2013.

*Fuel Purchase Obligations.* TVA has approximately \$2.4 billion in long-term fuel purchase commitments ranging in terms of up to six years for the purchase and transportation of coal, and approximately \$1.0 billion of long-term commitments ranging in terms of up to 11 years for the purchase of enriched uranium and fabrication of nuclear fuel assemblies.

*Tritium Production Approved.* In September 2002, the NRC issued an amendment to the Watts Bar Nuclear Plant operating license, allowing TVA to irradiate tritium-producing burnable absorber rods ("TPBARS") at the plant to provide tritium to the Department of Energy ("DOE"). TVA's license amendment permits it to install up to 2,304 of the TPBARS per fuel cycle into the Watts Bar reactor and to irradiate them for a full cycle which lasts about 18 months. TVA will then remove the irradiated TPBARS for shipment to DOE's tritium-extraction facility at the Savannah River Site near Aiken, South Carolina. TVA began tritium production at Watts Bar in the fall of 2003. Also in September 2002, the NRC issued a similar amendment to the Sequoyah Nuclear Plant operating license allowing tritium production. At this time, no tritium production has been scheduled at the Sequoyah Nuclear Plant. While producing tritium, TVA is able to operate the reactors for its program mission of producing electricity.

TVA has a long-term interagency agreement with DOE to utilize TVA's Sequoyah and Watts Bar Nuclear Plants to produce tritium. The agreement has been designed so that DOE funds and not TVA power funds support this program. This agreement, ending in 2035, requires DOE to reimburse TVA for costs incurred. DOE will pay TVA's costs to irradiate TPBARS in the nuclear reactors at Watts Bar and Sequoyah Nuclear Plants. DOE will fabricate the TPBARS and TVA will insert them into the reactors during routine refueling outages. After irradiation the TPBARS will be removed by TVA at the next refueling outage and returned to DOE for use in the production of tritium.

The interagency agreement under the Economy Act describes the standard tritium program costs for which TVA may recover costs from DOE. These reimbursements include fixed payments for reasonable estimates of costs to be incurred by TVA for specific work tasks, reimbursable costs for actual costs incurred by TVA not identified under fixed payments, third party costs incurred by TVA, and estimated costs in excess of direct costs that may be incurred for the tritium program. As of September 30, 2003, TVA has been reimbursed by DOE for costs incurred for the program.

### *Contingencies*

*Concentration of Credit Risk.* Five municipal customers, which represent an aggregate of 28 percent of TVA's total power sales in 2003, 29 percent for 2002, and 28 percent for 2001, purchase power from TVA under long-term contracts that require either five or ten years' notice to terminate. Outstanding accounts receivable for these customers at September 30 were \$116 million, or 38 percent, for 2003 and \$124 million, or 39 percent, for 2002 of total outstanding power receivables.

*Nuclear Insurance.* The Price-Anderson Act sets forth an indemnification and limitation of liability plan for the U.S. nuclear industry. All NRC nuclear plant licensees, including TVA, maintain nuclear liability insurance in the amount of \$300 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 \$100.59 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

\$603.54 million per nuclear incident, but it would have to pay no more than \$60 million per incident in any one year.

TVA carries property, decommissioning, and decontamination insurance of \$2.06 billion for its licensed nuclear plants 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 \$58 million.

*Decommissioning Costs.* Provision for decommissioning costs of nuclear generating units is based on options prescribed by NRC procedures to dismantle and decontaminate the facilities to meet NRC criteria for license termination.

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 weighted estimated cash flows required to satisfy the related obligation and discounted at the credit adjusted rate of interest in effect at the time the liability was actually incurred or originally accrued, and subsequently modified to comply with the prevailing accounting provisions. 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, 2003, the present value of the estimated future decommissioning cost of \$1,510 million was included in Other liabilities, and the unamortized regulatory asset of \$783 million was included in Deferred charges. This decommissioning cost estimate is based on amounts prescribed by the NRC for removing a plant from service, releasing the property for unrestricted use, and terminating the operating license. The actual decommissioning costs may vary from the derived 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. Utilities that own and operate nuclear plants are required to use different procedures in calculating nuclear decommissioning costs under SFAS No. 143 than those that are used in calculating nuclear decommissioning costs when reporting to the NRC. Accordingly, the two sets of procedures produce different estimates for the costs of decommissioning.

TVA maintains a decommissioning trust fund to provide funding for the decommissioning of nuclear power plants. As of September 30, 2003, the decommissioning trust fund investments totaled \$632 million and were invested in securities designed to achieve a return in line with overall equity market performance.

TVA has evaluated the nature and scope of its decommissioning policy as it relates to all electric generating plants. The evaluation was used to determine the need for recognition of additional asset retirement obligations as described in SFAS No. 143, *Accounting for Asset Retirement Obligations*, which became effective for TVA in 2003.

*Cost-Based Regulation.* Regulatory assets for TVA total approximately \$1,861 million at September 30, 2003, 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. (See note 1 — *Cost-Based Regulation*.)

*Environmental Matters.* TVA has incurred and continues to incur substantial capital expenditures and operating expenses in order to comply with environmental requirements.

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 oxides ("NO<sub>x</sub>") emissions in two phases in order to control acid rain. TVA's strategy to date for complying with the CAAA Title IV requirements for SO<sub>2</sub> has included the construction 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 most of the changeover to lower-sulfur coal. Through 2003, TVA has invested approximately \$1 billion in capital improvements for acid rain compliance. TVA estimates it will spend an additional \$64 million from 2004 to 2006 to complete switches to lower-sulfur coals and approximately \$300 million to install a scrubber at Paradise Unit 3 for acid rain compliance.

NO<sub>x</sub> reductions required under Title IV of the CAAA affected 58 of TVA's 59 coal-fired units. The only TVA unit for which NO<sub>x</sub> reductions are not required under Title IV is TVA's Shawnee Fossil Plant Unit 10. 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 43 units and boiler optimization at the remaining 15 units. In 1996 TVA selected an early election option for four of these 58 units, which allows the four units at John Sevier Fossil Plant to be limited to Phase I NO<sub>x</sub> levels through 2007. In 2008 these four units will have to meet lower Phase 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 (“SCR”) systems or other advanced systems to further control NO<sub>x</sub> emissions from approximately 25 of its coal-fired units. SCRs are state-of-the-art NO<sub>x</sub> pollution technology. Installation of these SCRs will ensure compliance with the NO<sub>x</sub> State Implementation Plan (“SIP”) Call Rule issued by the Environmental Protection Agency (“EPA”) in 1998. Depending on future generation requirements, additional NO<sub>x</sub> controls may be required.

The EPA has finalized new, more stringent National Ambient Air Quality Standards for particulate matter and ozone and a rule designed to reduce regional haze. TVA anticipates that compliance with the new regional haze rule could require additional SO<sub>2</sub> controls by 2013 to 2014. The EPA on December 15, 2003, announced new rules to reduce mercury emissions from coal-fired plants. Depending on the regulatory approach used and the level of the mercury reductions required by EPA’s final rules, TVA could incur additional substantial capital costs for control of mercury. The proposed rules would either cap mercury emissions in two phases (the first would be effective in 2010 and the second would be effective in 2018) or establish a mercury emission rate that would have to be achieved by January 2008. In addition, a number of bills have been introduced in Congress that would require significant decreases in NO<sub>x</sub> and SO<sub>2</sub> emissions as well as carbon dioxide emissions. The timing and content of such legislation remains highly uncertain, and it is unlikely that it will be enacted before 2004 or 2005.

TVA anticipates that compliance with emerging regulations will require additional SO<sub>2</sub> emissions reductions and has initiated plans to design, build, and operate four more scrubber systems to further reduce SO<sub>2</sub> emissions from 11 of its coal-fired units. Design of these scrubbers started in 2003; however, substantial construction activities are not expected to begin until TVA completes its SCR installation program in 2005.

TVA expects that the NO<sub>x</sub> reduction equipment installed to meet the NO<sub>x</sub> SIP Call Rule will likely be adequate to meet new regulations through the end of this decade. Annual, rather than seasonal, operation of this equipment may be required however.

Expenditures related to the clean air projects during 2003 and 2002 were approximately \$500 million and \$400 million, respectively. The total cost of the planned SCR program is now estimated to be \$1.3 billion. Projects exceeding \$1.0 billion had been completed by the end of 2003, with approximately \$300 million of the total program remaining. The cost of the planned installation of five scrubbers is estimated to be \$1.5 billion (including the \$300 million scrubber for Paradise Unit 3). The total cost of future compliance with NO<sub>x</sub>, SO<sub>2</sub>, and mercury reduction 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 (“CAA”). However, total costs could exceed \$4.0 billion, exclusive of the costs of the planned SCRs and scrubbers.

In the fall of 1999, the EPA commenced judicial or administrative actions against a number of utilities in the eastern United States, including TVA, alleging that they have modified their coal-fired units without complying with new source review (“NSR”) requirements. EPA issued an administrative order directing TVA to put new source controls on 14 of its coal-fired units and evaluate whether more controls should be installed on other units. TVA challenged the validity of this order, and on June 24, 2003, the Eleventh Circuit Court of Appeals issued its decision in the case. Although the Eleventh Circuit did not rule on the merits of the case, a three judge panel of the court held that the procedure used by EPA against TVA was “unconstitutional” and that “TVA is free to ignore” EPA’s administrative compliance order because it was “legally inconsequential” and did not constitute final agency action. The Eleventh Circuit concluded that part of the CAA is unconstitutional because it allows EPA to decide that a regulated party like TVA has violated the law and is liable for severe penalties without ever allowing the regulated party to present evidence on whether the law was in fact violated. The court said that EPA may sue TVA in district court to try to prove its case. The EPA, through the Department of Justice, moved for reconsideration en banc by the Eleventh Circuit of the court’s decision. The Eleventh Circuit denied EPA’s motion for rehearing. The EPA may seek review of the Eleventh Circuit’s decision in the Supreme Court. The outcome of this litigation and the EPA proceedings is uncertain. It is not possible to predict with certainty what impact implementation of EPA’s order would have on TVA if EPA prevails on the merits. TVA could be required to incur capital costs in excess of \$3 billion by 2010 to 2012 to implement EPA’s order. Any additional controls that TVA could be required to install on units as a result of this matter, however, would also apply toward other reduction requirements that are anticipated under developing CAA regulatory programs (discussed under “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” — “*Environmental Matters*” in Part II). Thus, because of the other CAA program requirements, TVA would, in any event, likely have to incur a substantial portion of the costs that might result from the EPA enforcement action. 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.

EPA recently issued its final rule clarifying what constitutes routine replacement projects which are excluded from NSR requirements. Under the EPA's final rule, as long as a project does not involve replacing plant components costing more than 20 percent of the cost of a new unit and the capacity of the unit is not increased, the project is excluded from NSR requirements. It is expected that this final rule will allow TVA to continue to maintain safe and reliable operation of its coal-fired units in the future. The rule is in litigation and must be adopted by the Valley states in separate rulemaking processes before it will be applicable to TVA.

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 ten 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, and although the U.S. Court of Appeals for the Eleventh Circuit did not rule on the merits of the case, a three-judge panel of the court held that the procedure used by the EPA was unconstitutional and that TVA is "free to ignore" EPA's administrative compliance order. EPA may still seek review of the matter by the Supreme Court. It is not possible to predict with certainty what impact implementation of the EPA's order would have on TVA if EPA prevails on the merits. 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 — Environmental Matters — Clean Air Developments*). Two environmental groups have also sued TVA in federal district courts in eastern Tennessee and northern Alabama alleging that maintenance projects at Bull Run and Colbert Unit 5 violated NSR requirements. These cases involve the same NSR allegations at Bull Run and Colbert Unit 5 as were raised in the EPA proceeding found unconstitutional by the Eleventh Circuit, and both of these district court proceedings are currently stayed pending the outcome of the Eleventh Circuit litigation. See "*Legal Proceedings*" in Part I.

*Legal.* TVA is a party to several lawsuits described in "*Legal Proceedings*" in Part I. In addition, 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.

## **10. Stewardship Responsibilities**

During 2003, TVA continued to conduct certain nonpower programs, including managing navigable river channels, providing flood control, and overseeing certain recreation facilities. TVA's responsibilities include reservoir operations, navigation, dam safety, and 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 revenues from TVA's power program and other TVA revenue sources in the event that there were insufficient appropriations to pay for such activities in any year.

Beginning in 2000, Congress stopped providing appropriations to TVA to fund essential stewardship activities. Consequently, during 2001, TVA paid \$72 million, and in both 2002 and 2003, TVA paid \$83 million for essential stewardship activities primarily with power revenues. In addition, administrative jurisdiction over Land Between The Lakes was transferred to the Secretary of Agriculture effective October 1, 1999. As part of the transfer, TVA assumed responsibility for certain transition expenses associated with the transfer. To date, TVA has paid \$9 million of transition expenses with a remaining liability estimated to be approximately \$1 million at September 30, 2003. 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, 2003, the net completed plant balances for multipurpose dams and other plant were \$654 million and \$40 million, respectively. At September 30, 2002, the net completed plant balances for multipurpose dams and other plant were \$665 million and \$40 million, respectively.

## 11. Unaudited Quarterly Financial Information

A summary of the unaudited quarterly results of operations for the years 2003 and 2002 follows. It should be read in conjunction with the audited financial statements appearing herein. Results for interim periods may fluctuate as a result of weather conditions, changes in rates, and other factors.

(in millions)	2003				
	First	Second	Third	Fourth	Total
Historical operating revenues	\$ 1,693	\$ 1,803	\$ 1,637	\$ 1,859	\$ 6,992
Reclassifications					
Interdivisional sales	(1)	(1)	(1)	(1)	(4)
Adoption of EITF 02-3	(11)	(10)	(6)	(9)	(36)
Operating revenues after reclassifications	1,681	1,792	1,630	1,849	6,952
Operating income	440	422	324	391	1,577
Cumulative effect of accounting changes*	217	—	—	—	217
Net income/(loss)*	314	83	(15)	74	456
	2002				
Historical operating revenues	\$ 1,521	\$ 1,653	\$ 1,678	\$ 1,983	\$ 6,835
Reclassifications					
Interdivisional sales	(1)	(1)	(1)	(1)	(4)
Adoption of EITF 02-3	(12)	(5)	(10)	(8)	(35)
Operating revenues after reclassifications	1,508	1,647	1,667	1,974	6,796
Operating income	360	413	412	464	1,649
Cumulative effect of accounting changes	—	—	—	—	—
Net income/(loss)	3	(89)	59	100	73

### Notes

\* During the fourth quarter of 2003, TVA restated the cumulative effect of adoption of SFAS No. 143 resulting in the recognition of an additional \$17 million charge as compared to the original \$178 million charge that was previously reported.

## 12. Reclassifications

In 2003, TVA changed its method for recording interdivisional sales, displacement sales, and limestone used for production of electricity. The net effect of the reclassifications of interdivisional sales and displacement sales on sales of electricity was a decrease of \$39 million in 2002 and a decrease of \$104 million in 2001. The reclassifications also resulted in a corresponding decrease in fuel and purchased power of \$35 million in 2002 and a decrease of \$100 million in 2001 and a decrease of \$4 million in operating and maintenance for 2002 and a decrease of \$4 million for 2001. The reclassification of limestone from fuel and purchased power to operating and maintenance resulted in a decrease in Fuel and purchased power and a corresponding increase in Operating expenses of \$13 million for 2002 and \$11 million for 2001. These modifications had no effect on operating income, net income, or operating cash flows for the periods reclassified.

(in millions)	Year ended September 30	
	2002	2001
Historical operating revenue	\$ 6,835	\$ 6,999
Reclassifications		
Interdivisional sales	(4)	(4)
Displacement sales after adoption of EITF 02-3	(35)	(100)
Operating revenues—reclassified	<u>\$ 6,796</u>	<u>\$ 6,895</u>
Historical operating expenses	\$ 5,186	\$ 5,506
Reclassifications		
Fuel and purchased power	(48)	(111)
Operating and maintenance	9	7
Operating expenses—reclassified	<u>\$ 5,147</u>	<u>\$ 5,402</u>

### 13. Subsequent Events

#### *Legislation*

Two bills were introduced into Congress in 2003 that called for expanding and restructuring the TVA Board, one by Representative Cooper (D-TN) and a similar one by Senator Frist (R-TN). These bills would have created a nine-member part-time Board that would, among other things, establish long-range goals and policies for TVA, approve TVA's annual budget, determine electricity rates, and appoint a Chief Executive Officer ("CEO") who would manage TVA's day-to-day operations. Neither bill became law in the first session of Congress. In order for either bill to become law, it must be approved by both the House and Senate and signed by the President.

In addition, during the last weeks of the first session of Congress, the proposed Energy Policy Act of 2003 ("Energy Bill") was under active consideration. It was reported by the Conference Committee and approved by the House of Representatives. In the Senate, a vote to invoke cloture on the Energy Bill failed, and the bill did not become law in the first session of this Congress.

Among other things, the Energy Bill would (1) similar to the Frist bill, convert TVA's Board of Directors into a part-time Board of nine members serving sequenced five-year terms and create a new position of CEO to manage TVA's day-to-day operations, (2) authorize FERC to review TVA's transmission rates and terms and conditions of service to determine whether they are comparable to those TVA imposes on itself and whether they are unduly discriminatory, and (3) authorize FERC to order refunds if the rates charged by TVA and other nonjurisdictional entities on wholesale electricity transactions for a term of 31 days or less are not just and reasonable. In addition, the Energy Bill contains some unclear language that might be interpreted as inadvertently repealing the Anti-Cherry-picking Provision. TVA does not believe that Congress intended for the Energy Bill to repeal the Anti-Cherry-picking Provision, and the Conference Committee leader of the House of Representatives has stated in a floor colloquy that no such repeal was intended.

#### *Hedging Pilot Program*

A financial trading pilot program to reduce TVA's economic risk exposure associated with TVA's physical electric generation, purchases, and sales was approved by the Board on September 11, 2003. The program allows TVA to trade certain futures contracts and options on futures contracts for hedging purposes only. Trading covered by this authorization will be for the purpose of hedging risks associated with the cost of natural gas and fuel oil for TVA's power generation operations and risks under power purchase or sale arrangements where the energy price varies based upon a fuel index. Trading of authorized futures contracts and options on futures contracts shall be limited solely to those transactions that hedge or otherwise limit economic risks directly associated with TVA's fuel requirements for power generation or with the aforementioned type of power purchase or sale arrangement. Transactions shall be limited to trading of the NYMEX futures contracts and options on futures contracts related to natural gas and fuel oil. Trading shall not be authorized for speculative purposes. The pilot program shall end on August 31, 2005. No trades were made in 2003 under this trading program.



### *Prepayment Agreement*

On November 20, 2003, TVA and Memphis Light, Gas & Water (“MLGW”), a distributor of TVA power, entered into an agreement under which MLGW would make a prepayment to TVA for \$1.5 billion worth of electricity capacity, which would be delivered to MLGW over a 180 month period. TVA received the \$1.5 billion proceeds per the agreement in December 2003, and TVA recorded the \$1.5 billion in proceeds as deferred revenue. TVA will recognize revenue, based on the ratio of kilowatt hour units delivered to total kilowatt hour units under contract, as electricity is delivered to customers.

### *Termination Notices*

In November 2003, TVA received notice from Monticello Electric Plant Board (“Monticello”) that terminates its power contract with TVA in November 2008. In 2003, sales to Monticello generated less than 0.1 percent of TVA’s total operating revenues.

In December 2003, TVA received notice from Glasgow Electric Plant Board (“Glasgow”) that terminates its power contract with TVA in December 2008. In 2003, sales to Glasgow generated approximately 0.2 percent of TVA’s total operating revenues.

### *USEC Contract*

In January 2004, the United States Enrichment Corporation (“USEC”) announced it will begin constructing its new commercial centrifuge facility in Piketon, Ohio. Once this new facility is opened, it is unclear how much energy USEC will need to acquire from TVA for its Paducah, Kentucky facility (“Paducah Facility”). Under the current contract with TVA, USEC is required to purchase a fixed amount of energy for its Paducah Facility through May 2006. In 2003, sales to USEC for its Paducah Facility generated approximately 3.5 percent of TVA’s total operating revenues.

### *Project Cancellation*

In December 2003, TVA was notified that Regenesys Technologies Limited (“RTL”) will not go forward with manufacturing of the fuel cells to be installed in the partially completed Regenesys energy storage plant in Columbus, Mississippi. RTL has made a business decision to close down all of its operations, making it impossible for TVA to complete the facility. Accumulated costs associated with the project totaled approximately \$35 million which TVA recognized in the first quarter of 2004 as a loss on project cancellation. TVA is pursuing reimbursement from RTL for early termination of the contract, the amount of which is indeterminable at this time, but is not likely to exceed \$15 million.

### *Legal Proceedings*

On August 31, 1999, Birmingham Steel Corporation filed a lawsuit in the U.S. District Court for the Northern District of Alabama alleging that TVA overcharged for economy surplus power (“ESP”) during the summer of 1998. The lawsuit was filed as a class action on behalf of industrial customers who participated in TVA’s ESP program. Under ESP contracts, the hourly ESP energy price is calculated using TVA’s actual incremental cost of supplying the ESP load in each hour. The plaintiff alleges that TVA overcharged for ESP during the summer of 1998 by including in the price of ESP some costs that were added to TVA’s incremental cost. The complaint seeks over \$100 million in damages on behalf of Birmingham Steel and the other class members. In September 2002, the District Court decertified the class and then dismissed Birmingham Steel’s individual claim without prejudice on a jurisdictional issue. The class lawyers appealed the ruling on class decertification, and in December 2003, the U.S. Court of Appeals for the Eleventh Circuit reversed that ruling and sent the case back to the district court to allow the class lawyers a reasonable time to find a new class representative. If the class lawyers are unsuccessful, the Eleventh Circuit indicated that the class could then be decertified. At the present time, TVA believes it is more likely than not that a new class representative will not come forward.

## REPORT OF INDEPENDENT AUDITORS

### 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), comprehensive income (power program), net expense and comprehensive loss (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, 2003 and 2002, and 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, 2003, 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.

As discussed in note 1 to the financial statements, effective October 1, 2002, TVA changed the methodology for estimating unbilled revenue from electricity sales. As discussed in note 1 to the financial statements, effective October 1, 2002, TVA adopted Statement of Financial Accounting Standards No. 143, *Accounting for Asset Retirement Obligations*. As discussed in note 1 to the financial statements, effective October 1, 2002, TVA adopted EITF No. 02-3, *Issues Involved in Accounting for Derivative Contracts Held for Trading Purposes and Contracts Involved in Energy Trading and Risk Management Activities*.

In accordance with *Government Auditing Standards*, we have also issued our report dated January 23, 2004, 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, 2003. 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  
January 23, 2004

## 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 Information Statement. 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 Information Statement 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 Auditors does not limit the responsibility of management for information contained in the financial statements and elsewhere in the Information Statement.



Michael E. Rescoe  
Chief Financial Officer  
and Executive Vice President of Financial Services

## REPORT OF INSPECTOR GENERAL

### To the Board of Directors of the Tennessee Valley Authority

The Tennessee Valley Authority ("TVA") contracted with the independent certified public accounting firm of PricewaterhouseCoopers LLP ("PricewaterhouseCoopers") to audit the balance sheets (power program and all programs) as of September 30, 2003 and 2002, and the related statements of income (power program), changes in proprietary capital (power program and nonpower programs), comprehensive income (power program), net expense and comprehensive loss (nonpower programs), and cash flows (power program and all programs) for each of the three years in the period ended September 30, 2003. The contract required the audit be done in accordance with generally accepted government auditing standards.

Under the Inspector General Act, the Office of the Inspector General ("OIG") is responsible for taking appropriate steps to assure any work performed by nonfederal auditors, including PricewaterhouseCoopers, complies with generally accepted government auditing standards. The Chief Financial Officers Act also places responsibility on the OIG regarding TVA's annual financial statement audit. In keeping with our statutory responsibilities, we reviewed PricewaterhouseCoopers' reports and related audit documentation, interviewed their representatives, and performed such other procedures as we deemed appropriate in the circumstances to provide reasonable assurance the audit was performed in accordance with generally accepted government auditing standards.

The objective of our review was not intended to enable us to express, and we do not express, an opinion on TVA's financial statements or on management's conclusions about the effectiveness of its system of internal control. PricewaterhouseCoopers is responsible for the auditor's report dated January 23, 2004, and the conclusions expressed in the report. However, our review disclosed no instances where PricewaterhouseCoopers did not comply, in all material respects, with generally accepted government auditing standards. Our review was performed in accordance with generally accepted government auditing standards.



Richard W. Moore  
Inspector General  
February 4, 2004

**CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

During 2003, there were no changes in or disagreements with TVA's independent auditors on accounting matters or financial disclosure.

**PART III**

**DIRECTORS AND EXECUTIVE OFFICERS**

TVA is administered by a board of directors (“Board”) composed of three persons appointed by the President of the United States and confirmed by the Senate. TVA’s management structure includes a Management Committee which works with the Board to determine TVA’s strategic mission and future direction, as well as an Executive Committee which provides management oversight and ensures that policies of the Board are carried out. The Board and selected officers, their ages, their years of employment with TVA and principal occupations for recent years are as follows:

<u>Directors</u>	<u>Age</u>	<u>Year Appointed</u>	<u>Year Term Expires</u>
Glenn L. McCullough, Jr. . . . . Chairman	49	1999	2005
Skila Harris . . . . . Director	53	1999	2008
William W. Baxter . . . . . Director	50	2001	2011

Mr. McCullough was appointed to the Board in November 1999, and previously served as the mayor of Tupelo, Mississippi, beginning in 1997. Prior to his election as mayor of Tupelo, he was the director of the Mississippi office of the Appalachian Regional Commission. Chairman McCullough also worked in the family business, McCullough Steel Products, for 12 years.

Ms. Harris was appointed to the Board in November 1999. Prior to her current position, she served at the Department of Energy (“DOE”) as Executive Director of the Secretary of Energy Advisory Board. From 1993 until 1997, she was a Special Assistant to Vice President Gore and Mrs. Gore’s Chief of Staff. She came to the White House from Steiner-Liff Iron and Metal Company in Nashville, Tennessee, where she was Vice President for Development and Compliance. Ms. Harris served as a project manager at the U.S. Synthetic Fuels Corporation, and she was with the DOE during the Carter Administration. She has also held positions with management and engineering consulting firms specializing in energy-related work.

Mr. Baxter was appointed to the Board in November 2001. Prior to joining the Board, Mr. Baxter was Chairman and Chief Executive Officer of Holston Gases Inc. of Knoxville, Tennessee. Before joining Holston Gases Inc. in 1981, Mr. Baxter was an attorney with Garrett, Coffee, McGee & Baxter in Knoxville. From December 1997 through December 2000, Mr. Baxter was Commissioner of the Department of Economic and Community Development for the State of Tennessee.

<u>Executive Officers</u>	<u>Age</u>	<u>Year Employment Commenced</u>
Oswald J. Zeringue* . . . . . President and Chief Operating Officer	58	1989
John A. Scalice . . . . . Chief Nuclear Officer & Executive Vice President, TVA Nuclear	56	1989
Michael E. Rescoe* . . . . . Chief Financial Officer & Executive Vice President, Financial Services	51	2003
Maureen H. Dunn* . . . . . Executive Vice President and General Counsel	54	1978
John E. Long, Jr.* . . . . . Executive Vice President, Human Resources	51	1980
Mark O. Medford* . . . . . Executive Vice President, Customer Service and Marketing	57	1989
Ellen Robinson* . . . . . Executive Vice President, Communications and Government Relations	49	2001
D. LeAnne Stribley* . . . . . Executive Vice President, Administration	50	1995
John Bradley* . . . . . Senior Vice President, Economic Development	44	2002
Theresa A. Flaim* . . . . . Senior Vice President, Strategic Planning and Analysis	54	2002

Note

\*Member of Management Committee

Mr. Zeringue was named President and Chief Operating Officer in April 1998. Prior to his current position, he served as Chief Nuclear Officer & Executive Vice President (1997-1998), as Senior Vice President, Nuclear Operations (1993-1997), as Browns Ferry Site Vice President (1989-1993) and as Plant Manager of Palo Verde Nuclear Station, Arizona Public Service Company (1987-1989).

Mr. Scalice was named Chief Nuclear Officer & Executive Vice President, TVA Nuclear in June 1998. Prior to his current position, he served as Acting Chief Nuclear Officer (beginning April 1998), as Senior Vice President of Nuclear Operations (1997-1998), as Watts Bar Site Vice President (1993-1997), as Plant Manager of Browns Ferry Nuclear Plant (1991-1993), as Plant Manager of Watts Bar Nuclear Plant (1989-1991) and as Plant Manager of Shoreham Nuclear Power Station, Long Island Lighting Company (1989).

Mr. Rescoe was named Chief Financial Officer and Executive Vice President, Financial Services, in July 2003. Prior to his current position, he served as Senior Vice President of Finance & Planning and Chief Financial Officer with 3Com Corp., as Chief Financial Officer of Pacific Gas & Electric, and as an investment banker serving utility and energy sectors with the New York-based Bear Stearns and Kidder, Peabody.

Ms. Dunn joined TVA as an attorney in May 1978, assumed the position of Assistant General Counsel in September 1986, and assumed the position of Executive Vice President and General Counsel in January 2001.

Mr. Long was named Executive Vice President of Human Resources in October 2000. Since 1992, he has also served as a management appointee to the TVA Retirement System Board. Mr. Long joined TVA in 1980 as a Personnel Officer in the Engineering Division.

Mr. Medford was named Executive Vice President of Customer Service and Marketing in December 1996. He joined TVA as Vice President and Nuclear Technical Director in 1989. Mr. Medford directs staffs that manage customer accounts, product development and pricing and marketing. He has more than 27 years of public and private utility experience and he is responsible for relations between TVA and its customers. Before joining TVA, Mr. Medford was manager of nuclear regulatory affairs at Southern California Edison.

Ms. Robinson was named Executive Vice President of Communications and Government Relations in June 2001. She served as senior vice president of communications and government affairs at CNH Global NV in Racine, Wisconsin and before that as vice president of communications and government affairs at Case Corporation. Ms. Robinson joined Case from Burson-Marsteller in New York, where she was a vice president and a head of the business-to-business marketing unit.

Ms. Stribley was named Executive Vice President of Administration in December 2000. She joined TVA as Vice President of Finance in 1995 and assumed additional responsibilities as Controller in 1997. Before joining TVA, Ms. Stribley was vice president and chief financial officer at Travel Resources Management Group, Inc. Additionally, Ms. Stribley was director of corporate finance at Ohio-based LTV Corporation from 1987 to 1994, and between 1981 to 1987 she worked as assistant treasurer for the Western Company of North America, an offshore-drilling and oil-services corporation.

Mr. Bradley was named Senior Vice President of Economic Development in August 2002. He is responsible for recruitment and retention of capital investment and job creation, business development, technical services and community development. Mr. Bradley served as senior vice president for economic development for the Memphis Regional Chamber of Commerce from 1996 to 2002, and he worked in Memphis Light, Gas & Water's economic development department from 1980 to 1996.

Dr. Flaim was named as Senior Vice President of Strategic Planning and Analysis in June 2002. She is responsible for developing strategies related to the ongoing competitive restructuring of the electric-utility industry. She served for nine years as vice president of strategic planning for Niagara Mohawk. Dr. Flaim also worked at the Solar Energy Research Institute and the Los Alamos National Laboratory.

## **LABOR AGREEMENTS AND COMPENSATION**

On September 30, 2003, TVA had 13,379 employees, of whom approximately 5,290 were trades and labor employees. Neither the federal labor relations laws covering most private sector employers nor those covering most federal agencies apply to TVA. However, the TVA Board has a long-standing policy of acknowledging and dealing with

recognized representatives of its employees, which policy is reflected in long-term agreements to recognize the unions (or their successors) that represent TVA employees. Federal law prohibits TVA employees from engaging in strikes against TVA.

Salaries of regular TVA employees are limited by a federal pay cap (at September 30, 2003 the Executive Level IV, was \$134,000). The federal pay cap makes it a challenge for TVA to recruit and retain top management talent. In response, TVA has developed and implemented supplementary compensation arrangements to reduce the impact of the pay cap and to enhance TVA's ability to attract and retain the caliber of executive talent required to manage one of the largest power systems in the country. TVA believes the implementation of these arrangements is within its legal authority. In the past, GAO has expressed the opinion that some of TVA's compensation arrangements are not within TVA's legal authority. However, GAO has no authority to issue binding legal opinions on this matter or to stop any TVA payments. Congress has been aware of TVA's supplemental compensation arrangements and has not taken any action that would undermine TVA's position that the arrangements are within its legal authority.

In October 1995, the President issued an Executive Order requiring government corporations, including TVA, to submit information to OMB on bonuses paid to its senior executives. TVA submits information on these bonuses annually to OMB and also publicly disseminates this information. OMB approval of TVA's bonuses is not required.

## **CODE OF ETHICS**

TVA has a Disclosure and Financial Ethics Code ("Ethics Code") that applies to all executive officers and directors of TVA as well as to all other officers and managers involved in the preparation or review of financial information and other information for public disclosure in connection with TVA securities. The Ethics Code includes provisions covering conflicts of interest, ethical conduct, compliance with applicable laws, rules and regulations, responsibility for full, fair, accurate, timely, and understandable disclosures, and accountability for adherence to the Ethics Code. TVA is in the process of amending the Ethics Code after which time information about the the Ethics Code will be posted on TVA's website at: [www.tva.com](http://www.tva.com). TVA will provide a current copy of the Ethics Code to any person, without charge, upon request. Requests may be made by calling 888-882-4975 or sending an e-mail to: [investor@tva.com](mailto:investor@tva.com). Any waivers of or changes to provisions of the Ethics Code will be promptly disclosed to the public, subject to limitations imposed by law.

## **CONTROLS AND PROCEDURES**

TVA's management, including the Chief Financial Officer and the members of the Board, have conducted an evaluation of the effectiveness of TVA's disclosure controls and procedures as of the end of the period covered by this Statement. Based on that evaluation, the members of the Board and the Chief Financial Officer concluded that the disclosure controls and procedures are effective in providing reasonable assurance that all material information necessary and appropriate in this Statement has been made known to them in a timely fashion. TVA's disclosure controls and procedures are effective in providing reasonable assurance that information disclosed in TVA's annual financial reports is accumulated and communicated to management, including the members of the Board and the Chief Financial Officer, as appropriate, to allow timely decisions regarding disclosure. There have been no significant changes in internal controls, or in factors that could significantly affect internal controls, subsequent to the date the members of the Board and the Chief Financial Officer completed their evaluation.

TVA management believes that a control system, no matter how well designed and operated, cannot provide absolute assurance that the objectives of the control system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company can be detected. TVA's controls and procedures can only provide reasonable, not absolute, assurance that the above objectives will be met.

It should be noted that the design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions, regardless of how remote.



**PART IV**

**STATISTICAL & FINANCIAL SUMMARIES**

**STATISTICAL AND FINANCIAL SUMMARIES**

For the years ended September 30

	<u>2003</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>	<u>1995</u>	<u>1994</u>	<u>1993</u>
<b>Winter net dependable generating capacity (megawatts)</b>											
Hydro <sup>(a)</sup> .....	5,758	5,660	5,677	5,544	5,492	5,491	5,384	5,298	5,225	5,242	4,885 <sup>(b)</sup>
Fossil <sup>(c)</sup> .....	15,469	15,463	15,050	15,042	15,049	15,003	15,014	15,012	15,032	15,032	15,088
Nuclear units in service .....	5,776	5,751	5,715	5,729	5,729	5,620	5,625	5,545	3,342	3,342	3,365
Combustion turbine <sup>(d)</sup> .....	4,655	4,643	3,923	3,154	2,232	2,384	2,394	2,268	2,232	2,264	2,284
Total capacity .....	<u>31,658</u>	<u>31,517</u>	<u>30,365</u>	<u>29,469</u>	<u>28,502</u>	<u>28,498</u>	<u>28,417</u>	<u>28,123</u>	<u>25,831</u>	<u>25,880</u>	<u>25,622</u>
<b>System peak load (megawatts) – summer</b> .....	28,530	29,052	27,368	29,344	28,295	27,253	26,661	25,376	25,496	23,398	23,878
<b>System peak load (megawatts) – winter</b> .....	29,866	26,061	27,163	25,940	26,388	23,204	26,670	25,995	24,676	24,723	21,666
<b>Percent gross generation by fuel source</b>											
Fossil .....	60%	63%	64%	63%	63%	62%	61%	65%	71%	72%	77%
Hydro .....	11%	6%	6%	6%	7%	10%	11%	11%	12%	14%	13%
Nuclear .....	29%	30%	29%	31%	30%	28%	28%	24%	17%	14%	10%
Combustion turbine .....	NM	1%	1%	NM	NM	NM	NM	NM	NM	NM	NM
<b>Fuel cost per kWh (cents)</b>											
Fossil .....	1.43	1.39	1.32	1.27	1.28	1.25	1.23	1.23	1.26	1.34	1.27
Combustion turbine .....	7.61	4.65	6.07	6.22	3.94	4.01	5.22	4.54	3.61	5.45	5.09
Nuclear <sup>(e)</sup> .....	0.39	0.41	0.44	0.49	0.51	0.71	0.58	0.56	0.61	1.10	1.09
Aggregate fuel cost per kWh net thermal generation .....	1.14	1.11	1.08	1.05	1.05	1.10	1.04	1.06	1.14	1.31	1.25
<b>Fuel data</b>											
Net thermal generation (millions of kWh) .....	134,931	141,272	146,806	143,224	137,169	139,727	135,736	131,898	118,097	110,643	109,968
Billion Btu .....	1,391,933	1,458,367	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
Fuel expense (millions of dollars) .....	1,534	1,564	1,588	1,504	1,434	1,538	1,406	1,395	1,348	1,450	1,375
Cost per million Btu (cents) .....	110.21	107.25	105.47	102.29	102.21	107.81	101.73	104.22	112.61	129.40	124.42
Net heat rate, fossil only .....	10,316	10,323	10,255	10,267	10,229	10,207	10,180	10,145	10,138	10,131	10,052

(a) Includes 405 megawatts of dependable capacity from the U.S. Army Corps of Engineers projects on the Cumberland River system and 331 megawatts from four hydroelectric plants owned by TAPOCO, Inc., a subsidiary of Alcoa, Inc.

(b) Reflects expiration of TAPOCO, Inc. exchange agreement in 1990—renewed in 1994.

(c) Includes 440 megawatts of capacity that TVA has contracted to purchase from Choctaw Generation, L.P. from a lignite-fired generation plant in Chester, Mississippi.

(d) As of September 30, 2003, includes twenty-four 85 megawatt units subject to lease/leaseback arrangements.

(e) TVA changed its method of expensing the interest component of nuclear fuel expense in 1995.

*INDEPENDENT ACCOUNTANTS*

The financial statements of TVA at September 30, 2003 and 2002, and for each of the three fiscal years in the period ended September 30, 2003, appended hereto as part of this Statement, have been audited by PricewaterhouseCoopers LLP, independent accountants, as stated in their report, dated January 23, 2004, which report is also appended hereto.

\* \* \* \* \*

This Statement has been approved by duly authorized officers of the Tennessee Valley Authority.

Tennessee Valley Authority

By: /s/ MICHAEL E. RESCOE

Michael E. Rescoe  
*Chief Financial Officer &  
Executive Vice President  
Financial Services*

By: /s/ RANDY TRUSLEY

Randy Trusley  
*Vice President & Controller*

## CERTIFICATIONS OF THE BOARD OF DIRECTORS

Glenn L. McCullough, Jr., Skila Harris and Bill Baxter individually certify that:

1. I have reviewed this Information Statement ("Statement") of the Tennessee Valley Authority;
2. Based on my knowledge, this Statement does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the periods covered by this Statement;
3. Based on my knowledge, the financial statements and other financial information included in this Statement fairly present in all material respects the financial condition, results of operations and cash flows of the Tennessee Valley Authority as of, and for, the periods presented in this Statement;
4. The other certifiers and I are responsible for establishing and maintaining disclosure controls and procedures for the Tennessee Valley Authority and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Tennessee Valley Authority is made known to us by others particularly during the period in which this Statement is being prepared;
  - b) evaluated the effectiveness of the Tennessee Valley Authority's disclosure controls and procedures and presented in this Statement our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this Statement based on such evaluation; and
  - c) disclosed in this Statement any change in internal control over financial reporting that occurred during the quarter ended September 30, 2003 that has materially affected, or is reasonably likely to materially affect, the Tennessee Valley Authority's internal control over financial reporting; and
5. The other certifiers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Tennessee Valley Authority's auditors and the Inspector General of the Tennessee Valley Authority:
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Tennessee Valley Authority's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the Tennessee Valley Authority's internal control over financial reporting.

Date: January 28, 2004



Glenn L. McCullough, Jr.  
Chairman



Skila Harris  
Director



Bill Baxter  
Director

## CERTIFICATION OF THE CHIEF FINANCIAL OFFICER

I, Michael E. Rescoe, certify that:

1. I have reviewed this Information Statement ("Statement") of the Tennessee Valley Authority;
2. Based on my knowledge, this Statement does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the periods covered by this Statement;
3. Based on my knowledge, the financial statements and other financial information included in this Statement fairly present in all material respects the financial condition, results of operations and cash flows of the Tennessee Valley Authority as of, and for, the periods presented in this Statement;
4. The other certifiers and I are responsible for establishing and maintaining disclosure controls and procedures for the Tennessee Valley Authority and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Tennessee Valley Authority is made known to us by others particularly during the period in which this Statement is being prepared;
  - b) evaluated the effectiveness of the Tennessee Valley Authority's disclosure controls and procedures and presented in this Statement our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this Statement based on such evaluation; and
  - c) disclosed in this Statement any change in internal control over financial reporting that occurred during the quarter ended September 30, 2003 that has materially affected, or is reasonably likely to materially affect, the Tennessee Valley Authority's internal control over financial reporting; and
5. The other certifiers and I have disclosed, based on my most recent evaluation of internal control over financial reporting, to the Tennessee Valley Authority's auditors and the Inspector General of the Tennessee Valley Authority:
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Tennessee Valley Authority's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the Tennessee Valley Authority's internal control over financial reporting.

Date: January 22, 2004



Michael E. Rescoe  
Chief Financial Officer and Executive Vice President of Financial Services

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