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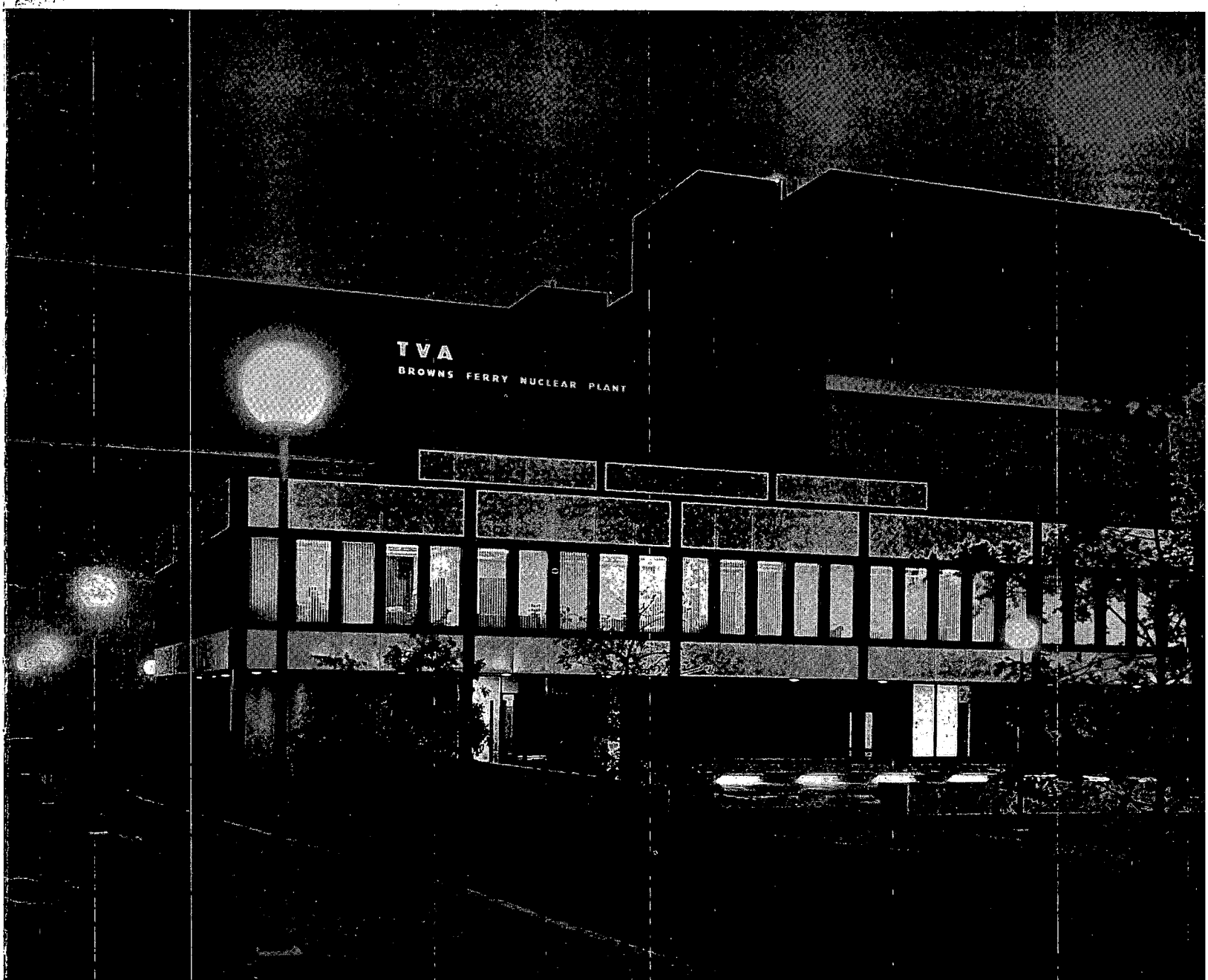
POWER ANNUAL REPORT 1974
TENNESSEE VALLEY AUTHORITY



COVER: *TVA's first nuclear power plant. The first of three nuclear units at Browns Ferry is now on line to help meet the Tennessee Valley region's growing power needs. It went into commercial operation on August 1, 1974, adding its 1,152,000 kilowatts and upping TVA's total installed generating capacity to 24.5 million. Worldwide, it is the first nuclear unit to reach a million kilowatts of power output.*

1974 POWER ANNUAL REPORT
for the fiscal year ended June 30

TVA is a corporate agency of the United States Government. It was established by Act of Congress in 1933 to develop the Tennessee River system and to assist in the development of other resources of the Tennessee Valley and adjoining areas.

The production and sale of electric power are part of TVA's resource development program. TVA supplies power at wholesale to 160 municipal and cooperative electric systems which in turn distribute power to more than 2.4 million customers in parts of seven states. TVA also serves directly 47 industrial customers with large or unusual power requirements and several Federal atomic, aerospace, and military installations.

Financially, the power program is separate from other TVA programs. It is required to be self-supporting and self-liquidating. Power accounts are kept in accordance with the uniform system prescribed for electric utilities by the Federal Power Commission.

This report deals with TVA's electric power activities. Additional information about power or other activities may be obtained from the Director of Information, Tennessee Valley Authority, Knoxville, Tennessee 37902.

CONTENTS

THE 1974 YEAR

Sales of TVA power were up more than 2.6 billion kilowatt-hours, but the increase was less than would normally be expected because of abnormal heating and cooling seasons, and conservation efforts by customers.

Revenues climbed by $134.3 million due to increased sales and a mid-year rate adjustment to cover the rapidly rising costs of making power available.

Production expense increased by more than $85 million, mostly because of higher-cost fossil fuels burned for generation. With depreciation and other expenses, total operating expense was up $102 million.

Net income was about the same as for the previous year. An operating margin of $42.7 million for the year, after payment of a dividend to the U. S. Treasury, was adequate to meet financial tests and provide a small reinvestment of revenue in power facilities.

The test operation of Browns Ferry nuclear unit 1 provided nearly 2 billion kilowatt-hours to the system. Hydro generation, though less than the record set the previous year, was still some 5.5 billion kilowatt-hours above average due to heavy streamflows from the second wettest year of record. Steam plant and combustion turbine generation were about the same as in 1973.

The TVA system generated an all-time record of 18,110,000 kilowatts in June when it met the Tennessee Valley region's highest-ever summer peak and sent some 2.4 million kilowatts of power to systems to the south and west in exchange for power that is delivered to TVA in winter.

In April, tornadoes toppled numerous transmission lines, for a time cutting all lines feeding Huntsville and Decatur, Alabama. The switching of power flow routes and an extraordinary response by line and construction crews hastily restored power service, often with temporary lines, holding the lengthiest transmission outage to less than two days.

A 300,000-kilowatt unit at the Gallatin Steam Plant was severely damaged in June when a section of the turbine spindle burst while the unit was being returned to service. It, and a similar unit at the plant taken off line for inspection, were expected to be out of service for some time.

Fuel prices accelerated sharply. To meet them with a minimum possible impact on rates, TVA, effective in July 1974, adjusted rates whereby charges for power each month, beginning in August, will reflect increases or decreases in the actual cost of fuel used in TVA power plants.

Fuel loading for Browns Ferry nuclear unit 2 was approved by the Atomic Energy Commission; construction advanced on the Sequoyah and Watts Bar Nuclear Plants; and planning continued on the proposed Bellefonte Nuclear Plant to be located near Scottsboro, Alabama, and for four nuclear units being considered for location near Hartsville, Tennessee.

TVA requested bids for an additional 4 nuclear units for operation in the 1982-1984 period, and contracted for about 678,000 kilowatts of combustion turbine capacity for service next summer.

TVA and General Electric Company amended the contract, covering the nuclear units being considered for location at the Hartsville site, to provide for certain changes in the design of the facilities and the services to be furnished by General Electric. This was done as part of an effort to standardize the design of nuclear power facilities, an action intended to reduce the time required for the licensing and construction of a nuclear power plant to reduce costs appreciably.

More than 10,000 persons attended 164 programs and demonstrations on energy conservation sponsored by TVA and power distributors. Most of the attendance was made up of civic groups, teachers, limited-income families, professional groups, consumer groups, students, and builders. TVA continued to advocate the wise and efficient use of energy to avoid waste.

	1974	1973
Kilowatt-hours sold, billions	106.1	103.5
Revenue, millions	$883.6	$749.3
Net income, millions	$106.1	$106.4
Repayment and dividend to the U. S. Treasury, millions	$ 83.4	$ 73.8
Available for reinvestment in power facilities, millions	$ 22.7	$ 32.6
Average annual residential use, kilowatt-hours	14,480	15,080
Average residential cost per kilowatt-hour, cents	1.45	1.30
Number of electrically heated homes, June	806,000	743,000
Region's peak power load, kilowatts	18,611,000	18,888,000
Construction expenditures, millions	$443.7	$407.7
Taxes and payments in lieu of taxes by TVA and the distributors, millions	$ 63.4	$ 56.3

Providing the region's power

Power sold to the municipal and cooperative distributors of TVA power barely increased for the year, primarily because of winter weather that was 18 percent warmer than normal and summer weather that was 14 percent cooler than normal. Also, these sales reflected customer response to the continuing power conservation campaign by TVA and the distributors.

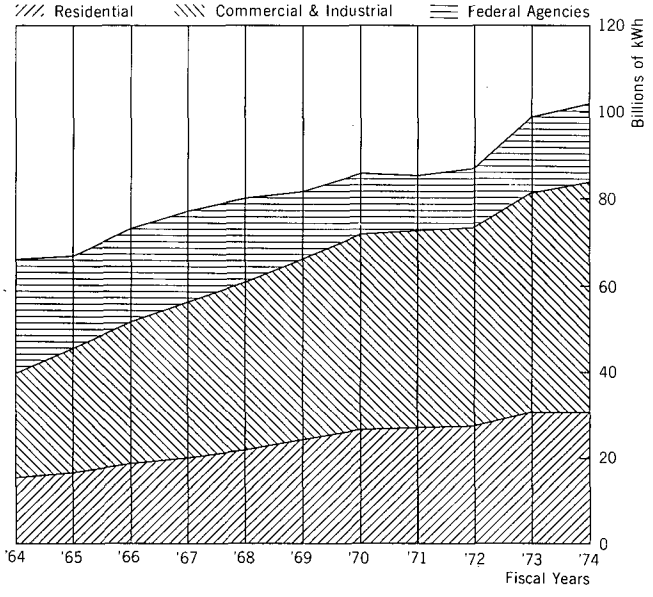
The largest kilowatt-hour increase in sales was to the directly-served industries, generally due to their building their industrial output back to normal levels after a period of relatively slow product sales. Inquiries by industries on the future availability of TVA power in the region were received at a record pace during the year.

Use of power by Federal agencies in the region was little more than in 1973.

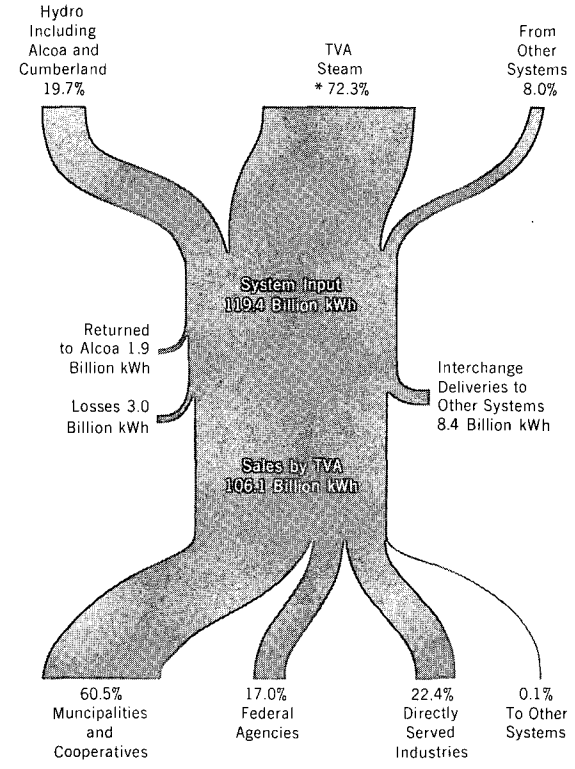
Sales

	Millions of kilowatt-hours	
	1974	1973
Municipalities and cooperatives	64,183	63,822
Industries	23,790	21,865
Federal agencies, including interdivisional	18,050	17,694
Electric utilities	122	92
Total	106,145	103,473

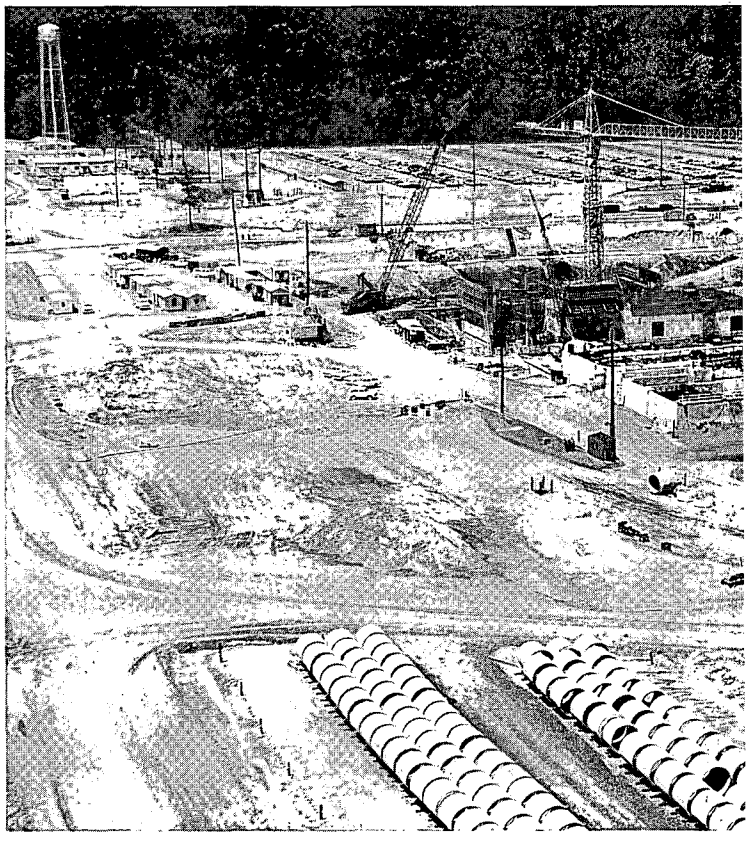
Sales to Ultimate Customers by TVA and Distributors



Source and Disposition of Electric Energy—Fiscal Year 1974



* 2.26% Browns Ferry Nuclear Steam Generation



Revenues increase

With increased sales and a rate adjustment effective in January, revenues grew to $883.6 million — enough to cover all of the higher costs experienced during the year, meet all financial obligations to bondholders, and leave a small amount to add to earnings reinvested in the power system.

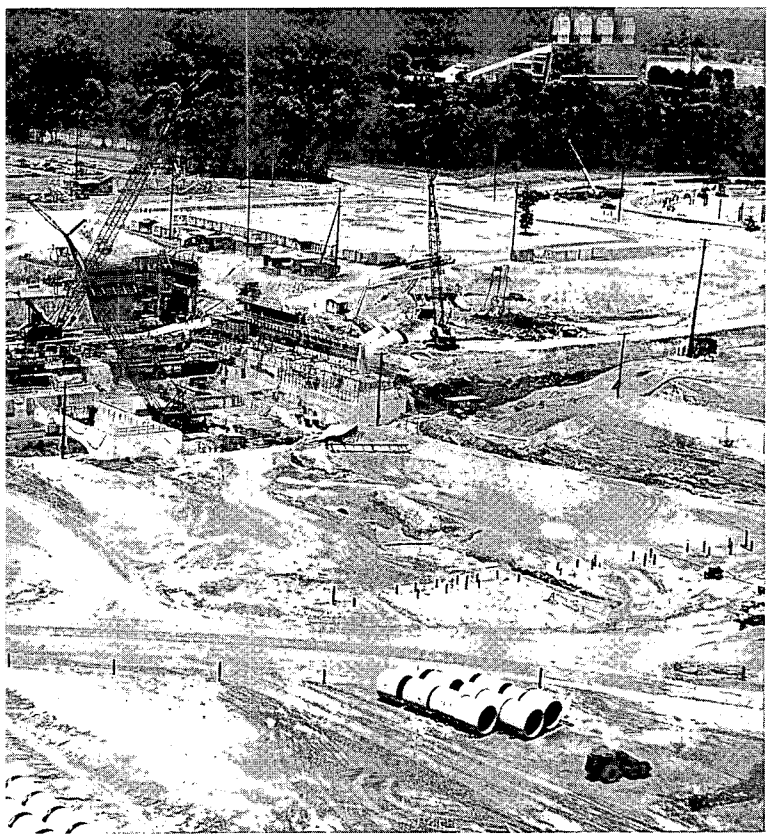
Despite the higher revenues, expenses were such that no increase was realized in net income. The input from Browns Ferry nuclear unit 1 in test operation and the relatively low production costs of power from better-than-average hydro generation helped maintain net income at $106.1 million, nearly the same as in 1973.

The retained earnings of $42.7 million for the year amounted to 4.8 percent of revenue. After deducting the $20 million capital repayment to the U. S. Treasury on appropriations previously invested in the power system, the resulting amount of $22.7 million was only 2.6 percent of operating revenues. This amount, together with depreciation accruals, was reinvested to help finance construction of the additional power facilities needed to meet customers' power demands.

Revenues

	Millions	
	1974	1973
Municipalities and cooperatives	$556.1	$476.3
Industries	179.8	144.7
Federal agencies, including interdivisional	126.5	107.2
Electric utilities	1.2	0.8
	$863.6	$729.0
Rents	20.0	20.3
Total	$883.6	$749.3

This might be viewed as a contrast between the old and the new — the small coal-fired Watts Bar Steam Plant (right background) completed in 1945, and the new Watts Bar Nuclear Plant (under construction foreground) which is due for service in 1978-1979. When completed, the nuclear plant's generating capacity will be ten times that of the coal-fired plant.



Costs climb alarmingly

Rising costs were a troubling element throughout the year.

Fuels for power generation reached their highest-ever price levels.

Interest costs for borrowed money to finance new power facilities approached all-time highs as the year ended, and with the availability of borrowings from the new Federal Financing Bank, TVA deferred bond and note sales scheduled for July 1974.

Employee wages increased to keep them comparable to those paid for similar work in the vicinity.

And new equipment was priced much higher than before, from transmission tower steel to substation transformers.

Fuels, in particular, posed a major problem since the power system could not continue to provide adequate power without them.

The average cost of coal burned — which was $4.73 a ton in 1970 — reached $8.61 in 1974. In June 1974, TVA paid an all-time high of $19.30 a ton at the mine for coal purchased to replace dwindling stockpiles at the Kingston Steam Plant.

Fuels getting scarce

A basic problem with fuels for power generation is the lack of supply to meet demand. While coal producers have been hesitant to open new mines to increase production, demand for the fossil fuel has been increasing steadily.

The producers' hesitancy is attributed to the high capital cost of opening new mines and to their lack of assurance that the coal they mine can be sold when its use might be restricted by environmental regulations covering sulfur dioxide emissions. At the same time, the normal growth in coal use, plus some additional national demand for coal as a substitute for unavailable gas and oil, have greatly expanded the need for coal.

Coal currently provides about 70 percent of TVA's power supply. The power system will require at least some 40-45 million tons of coal a year well into the future.

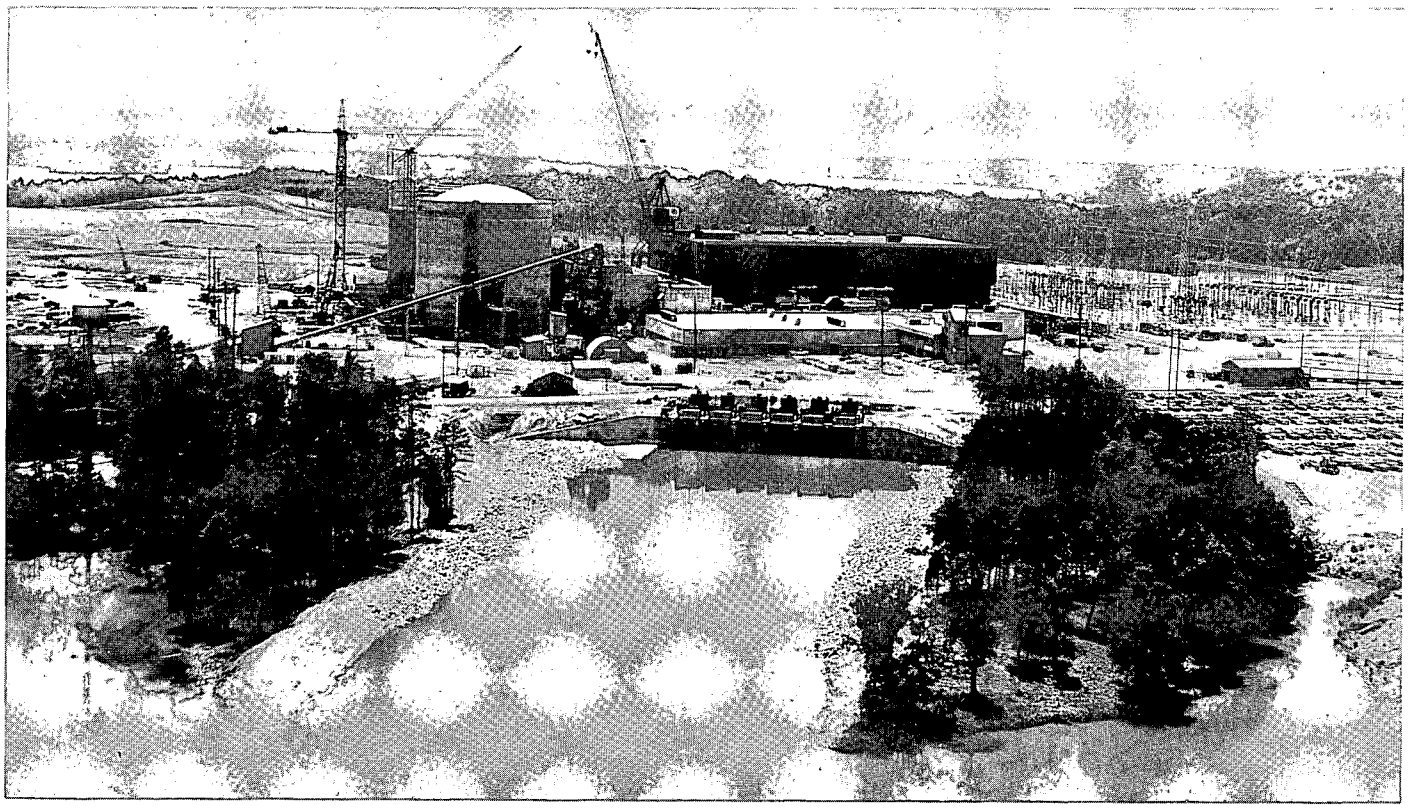
Coal stockpiles at steam plants declined during the year from the 90-day supply at expected burn that is considered desirable. While the prospect of rebuilding stockpiles appeared dim, TVA began investigating every avenue available that would assure a continued fuel supply, and thus an adequate power supply. TVA, through court action, has attempted to obtain performance by coal suppliers who were not complying with contractual obligations for the delivery of coal.

Costs push rates up

Rising power system costs, particularly for coal, required rate adjustments effective in January and July 1974.

The effect of the January adjustment was to increase the monthly cost for residential use of 1,000

The construction pace of the Sequoyah Nuclear Plant has slipped because of material shortages and subsequent delays, but its two generating units should be in operation in 1976 and 1977, adding a total of 2,441,000 kilowatts to TVA's generating capacity.



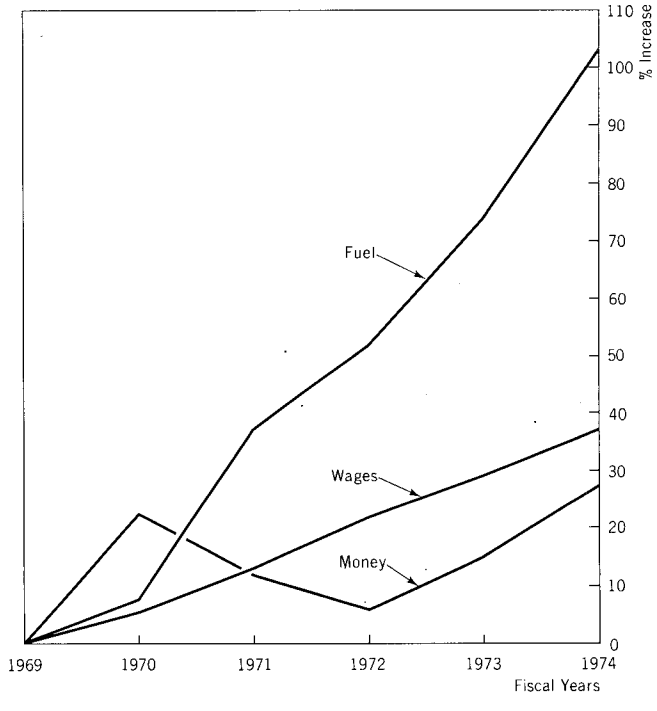
Plant Superintendent Jim Green (left) shares an amusing story with Dixy Lee Ray, Chairman of the Atomic Energy Commission, and Aubrey J. Wagner, TVA Board Chairman, during her tour of the Browns Ferry Nuclear Plant.

kilowatt-hours by $1.77. The adjustment effective in July provides that, beginning in August 1974, charges for power each month will reflect increases or decreases in the actual costs of fuel burned in TVA power plants.

The average residential rate in the Tennessee Valley region is about 40 percent less than the national average. Only in some locations in the Pacific northwest where hydroelectric facilities still provide all or the bulk of power supply are rates lower than in the region.

For example, the August bill for 1,000 kilowatt-hours under TVA distributor residential rate R-2 would be $17.64. In the surrounding areas for the same amount of power, the monthly bill is $20.15 in Louisville, $25.46 in Birmingham, and $25.48 in Atlanta. Elsewhere, comparable bills as of May 1, 1974, were $20.28 in Houston, $28.75 in Los Angeles, $35.25 in Washington, D. C., $35.39 in Chicago, $50.33 in Boston, and $69.54 in New York City.

TVA Power Cost Trends



Research role large in scope

On its own or in cooperation with others, TVA has more than 50 different energy-related research and demonstration projects underway, aimed primarily at developing new energy sources, converting fuels to more usable products, increasing system efficiencies, and improving the environment.

TVA and the power distributors actively support the Electric Power Research Institute (EPRI) and are active participants with Commonwealth Edison Company of Chicago and the Atomic Energy Commission in building the Nation's first breeder reactor demonstration plant.

EPRI surveys national energy resources and needs, and channels its efforts and funds into research programs of high priority and promising potential. It has more than 125 projects underway, involving some $200 million in research funds.

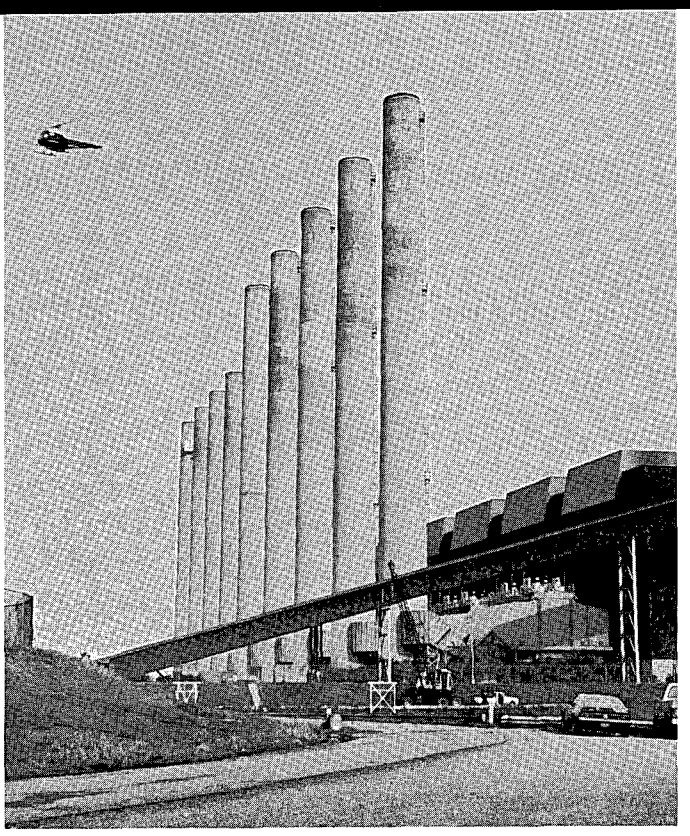
The Clinch River Breeder Reactor Plant will be built near Oak Ridge. The project was organized jointly by TVA, Commonwealth Edison Company of Chicago and the Atomic Energy Commission with participation by the entire electric industry. A primary objective of the demonstration project is to show that the breeder can be designed, built, and operated in a utility system framework. The development of the breeder reactor as a practical source of power is expected to extend uranium reserves for centuries, thereby securing for the Nation a potentially abundant supply of power at what is anticipated to be a relatively low cost.

Although TVA participates in a broad spectrum of energy research, special emphasis is being placed on uranium and coal development.

TVA has entered into an agreement with two firms to conduct a study of uranium enrichment through the use of new centrifuge technology. Enriched uranium is the fuel used in currently available nuclear power plants. Three AEC gaseous diffusion plants have been the country's only source for enriched uranium. The study will evaluate the feasibility of centrifuge enrichment plants, particularly of a size that could supply enrichment services to a limited geographic region or to one or more electric power systems.

The Nation has vast resources of coal. But this fossil fuel's future use could be severely restricted by environmental concerns.

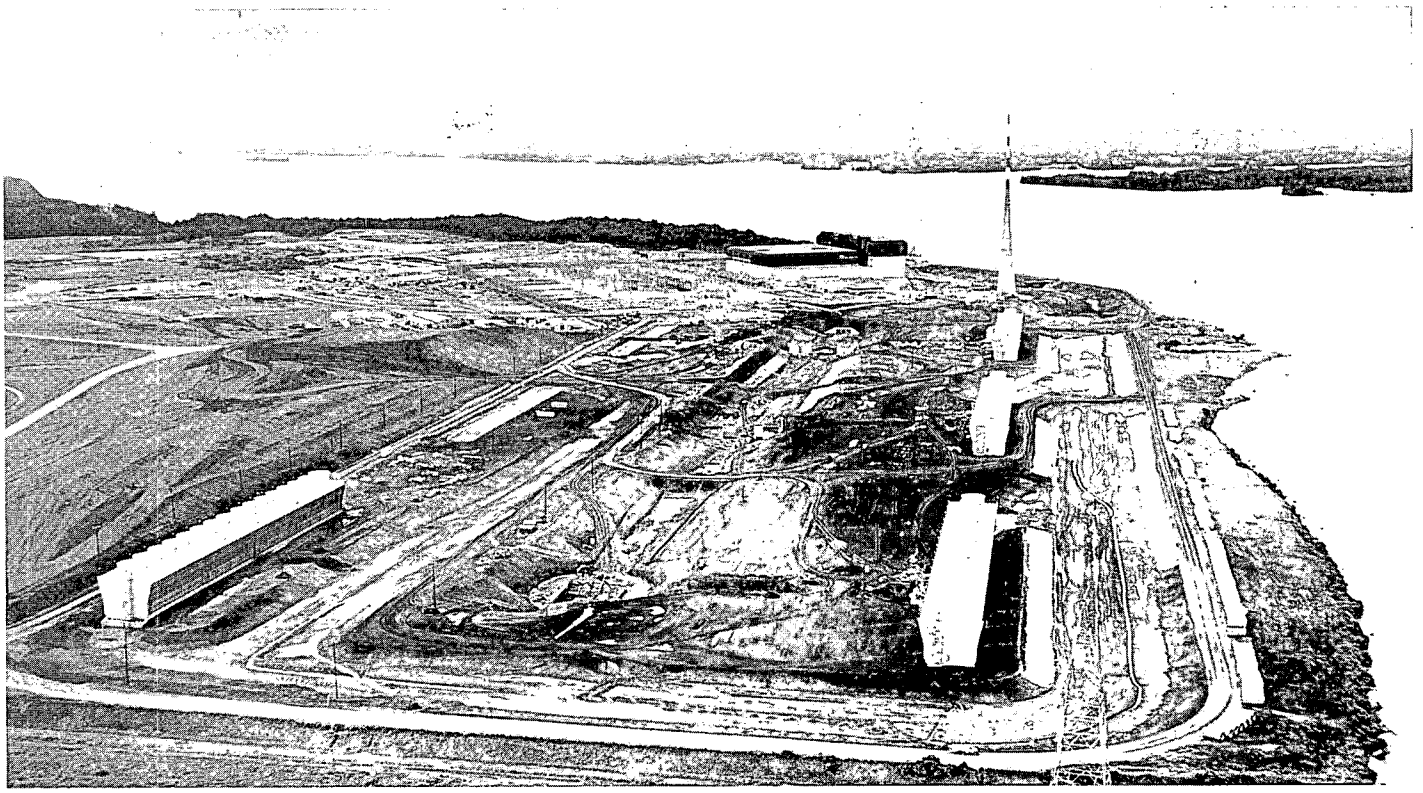
To investigate one of the possible ways to solve the problem, TVA has joined the Department of Interior in a program to develop commercial technology to produce a clean fuel gas from coal for generating electricity. Plans call for designing, installing, and testing two or more large coal gasifiers with desulfurization systems at a TVA power plant if initial studies show feasibility. Another potential way to assure coal's continued usefulness might be realized from the large-scale experimental scrubber that TVA will install on Widows Creek plant if initial studies show feasibility.



A TVA helicopter checks the sulfur dioxide concentration at the coal-fired Kingston Steam Plant. This is one of the numerous tests TVA undertakes to study the amount and dispersion characteristics of SO_2 as it might affect the air quality at ground level.

To find still other ways of assuring coal's continued use in light of environmental concerns, TVA is continuing its major efforts to control sulfur oxides. Sophisticated methods of controlling sulfur oxide emissions so that the air quality standards can be met by mid-1975 are being developed and implemented as a part of TVA's sulfur dioxide emission limitation (SDEL) programs. These programs are designed to protect the quality of air at ground level where people breathe and plants grow.

In addition, TVA will install a large-scale experimental scrubber on Widows Creek unit 8 to remove sulfur dioxide from stack gases at this coal-fired unit. Although there has been extensive development work on scrubber processes in this country and abroad, there are still problems that raise questions about the present reliability and the long-term feasibility of scrubbers for large generating units.



Cooling towers at the Browns Ferry Nuclear Plant are costly and require a lot of space, but they are necessary to comply with state water temperature standards.

Environmental concerns are major part of power supply

The upgrading and addition of fly ash collection equipment at operating coal-fired steam plants, the installation and operation of SDEL programs for maintaining air quality standards, and the continued work on cooling towers at nuclear power plants now under construction are currently the major components in TVA's efforts to improve the environment and meet air and water quality standards that have been established by state and Federal agencies.

The cost of TVA's environmental protection programs averaged around $3 million a week during the fiscal year — an enlarging cost that must be covered by electric rates over many years.

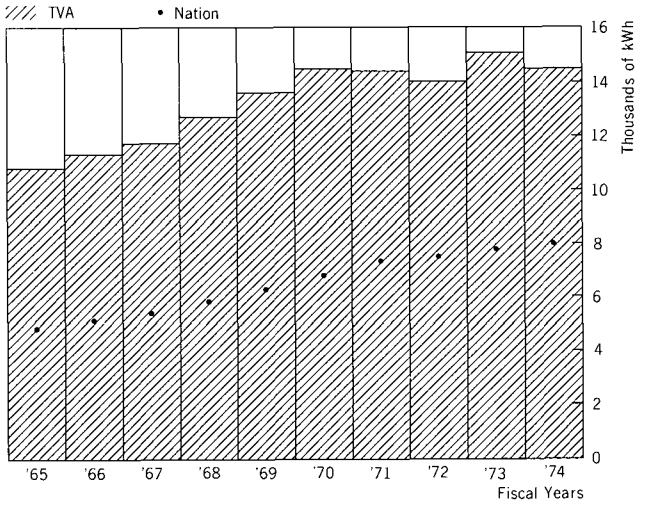
Projects to reduce fly ash emissions are underway at nine steam plants. SDEL programs are operational at Allen, Cumberland, Gallatin, and Paradise and are being designed and implemented at five other plants. Three of these plants, Kingston, Shawnee, and Widows Creek, will get new chimneys ranging in height from 800 feet to 1,000 feet.

Although TVA built underwater diffusion pipes to release the flow-through condenser cooling water at the Browns Ferry and Sequoyah nuclear plants, and believes these systems adequate to protect the environment, it is proceeding to construct cooling towers at the plants in order to comply with water temperature standards subsequently set by Alabama and Tennessee.

The region's economy moves forward

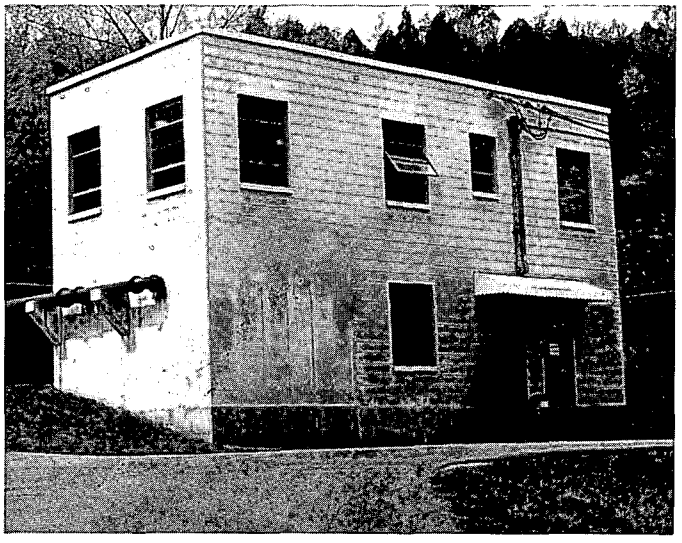
A significant growth in non-farm jobs, an increase in average personal income, an adequate supply of electric energy, a record for new industrial project announcements — all were instrumental in keeping the region's economy healthy.

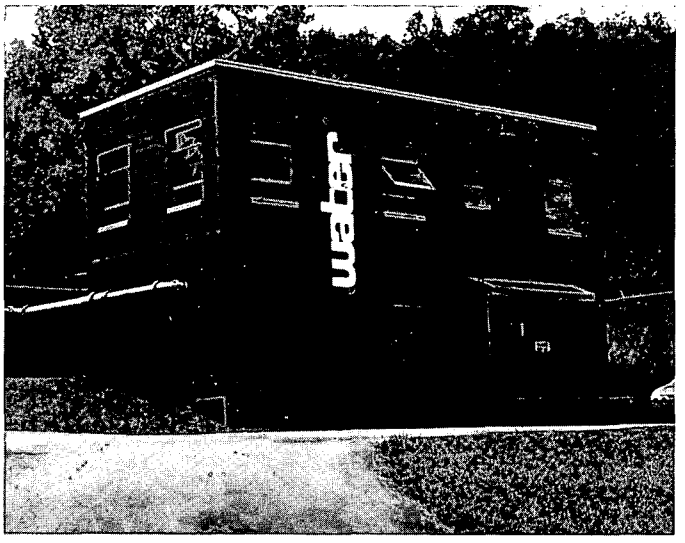
Average Residential Use



The number of residential electric consumers in the region grew by 71,000. A majority of homes rely on electricity as the predominant energy source, and about four in ten depend on it entirely. Average home use of 14,480 kilowatt-hours was less than the previous year because of milder-than-normal winter heating and summer cooling seasons and a conscious effort by consumers to use electricity efficiently, an effort TVA and the distributors endorse and promote. The average cost per kilowatt-hour of 1.45 cents was an increase to about the 1950 level, but remained about 60 percent of the current national average.

The region gained nearly 100,000 non-farm jobs in calendar 1973, reaching an estimated total of 2,358,600. About 30,000 of the additional jobs were in manufacturing industries. The unemployment rate fell to 3.5 percent, well below the national rate of nearly 5 percent. Personal income averaged $3,666 per capita, an increase of just under 9 percent from the previous year; it was at its highest-ever level





Operation Townlift, a TVA participating program undertaken at the request of local governments, can help change community attitudes. These "before and after" photos at Gainesboro in Middle Tennessee show but one aspect of efforts by communities large and small to get a new start on revitalizing their central business districts. Potential attributes — farm or industrial base, tourist visits, recreation, retail center, or historical significance — can be upgraded to spur community advancement and community pride.

but remained about 25 percent below the national average.

New projects in the region announced by industries in calendar 1973 represented an estimated industrial investment of about $1 billion. The projects involved 558 new or expanded plants, some 41,500 new jobs, and electric power requirements of about 700,000 kilowatts.

While the region and the Nation are looking more carefully at the objectives of economic growth now than in the past, the labor force is still growing and the need for new jobs continues. Economic and job opportunity, coupled with a desirable standard of living, require an adequate and affordable supply of electric power.

The region's power supply to increase

In the next 10 years, TVA is committed to the most massive generating plant construction program in its history, expanding generating capacity of 23.3 million kilowatts at June 30 to about 47 million.

It is not a construction program undertaken simply for system growth or to have excess power available for some undetermined potential user. Rather, it is additional capacity that is necessary and essential for very basic reasons — to meet the electric needs of people living in the region — needs that include new industry, new jobs, new homes, and a better quality of life for all who seek it.

TVA's commitment to nuclear power generation is the largest of any power system in the Nation.

The cities of the region, building for future economic and social growth, are experiencing changing skylines as new structures rise from unused land or replace old relics no longer useful. This changing skyline of Chattanooga is typical.

Thorough studies indicate that nuclear power plants represent the best assurance in the coming years that the region will have adequate electricity produced in an environmentally acceptable manner at affordable prices.

TVA has purchased supplementary combustion turbine capacity to serve peak power demands expected in 1975. The additional units, totalling about 678,000 kilowatts and proposed for installation at the Johnsonville Steam Plant, are expected to be in service by next summer.

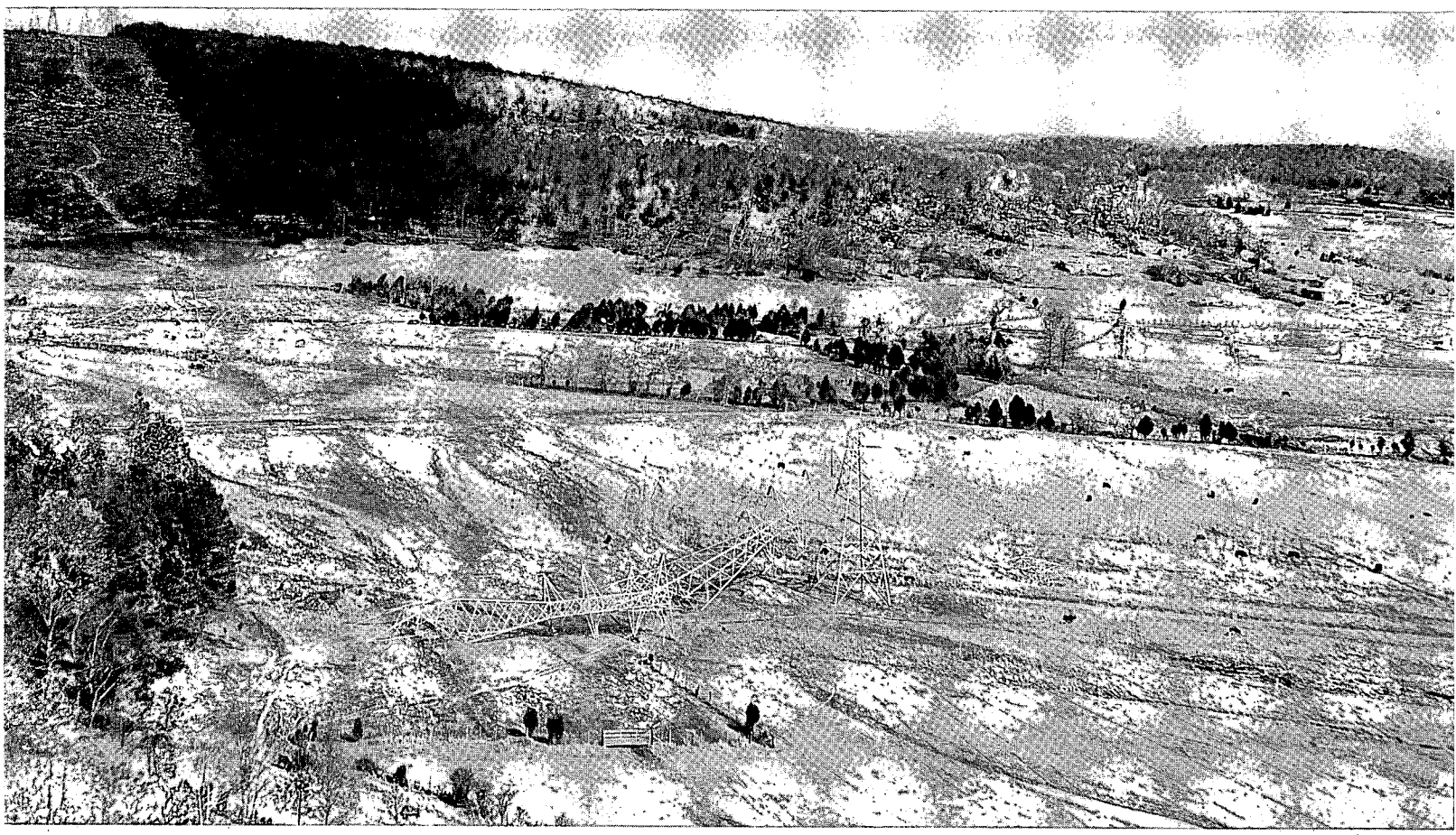
Construction continued on the Raccoon Mountain Pumped-Storage Project that will provide additional peaking capacity during periods of highest daytime use. Otherwise, all capacity additions scheduled at the end of the year were nuclear.

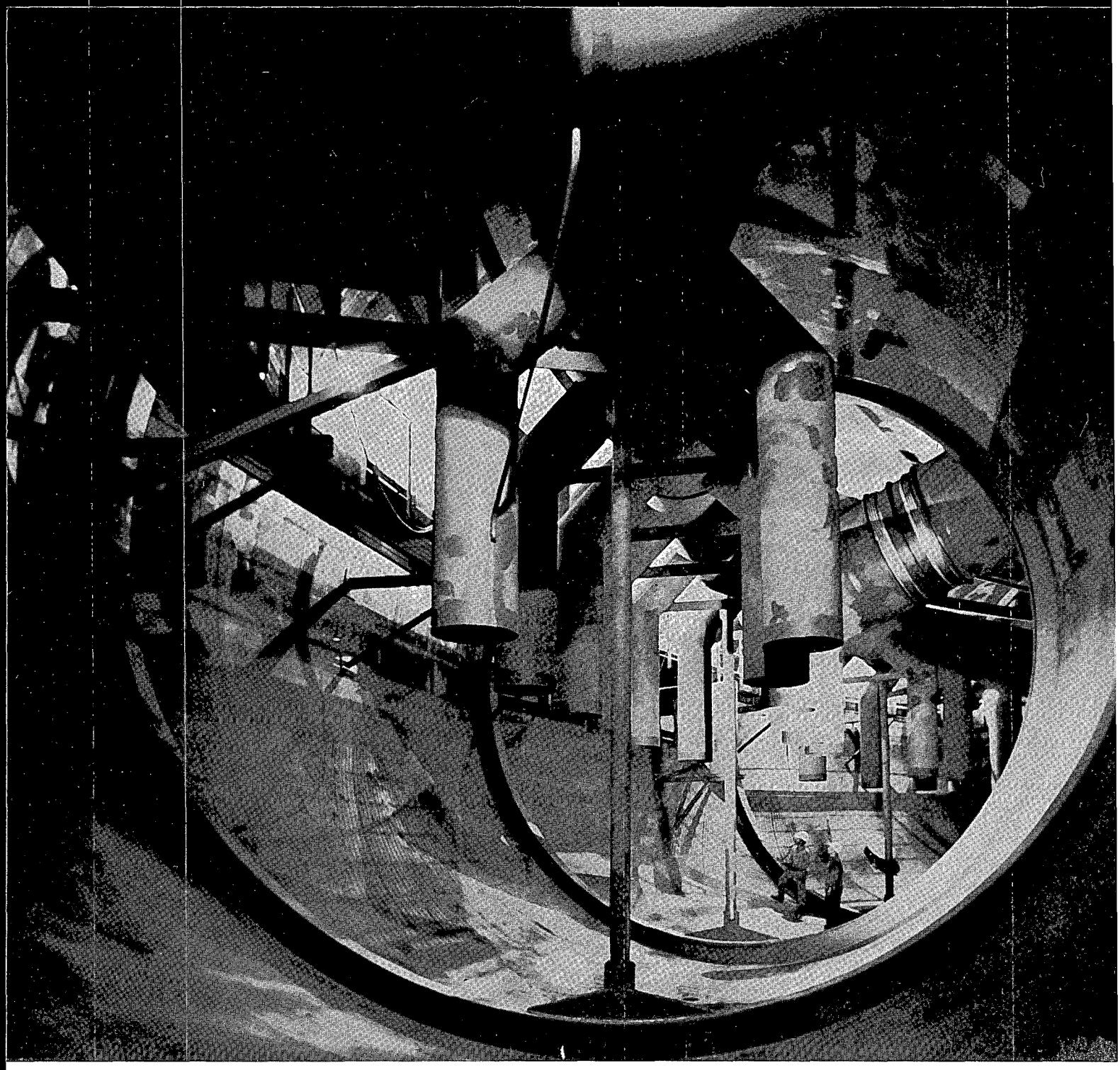
Unit 1 at the Browns Ferry Nuclear Plant completed its warranty run in July 1974 and began commercial operation on August 1, 1974. Fueling of unit 2 began in July 1974.

Work continued on the Sequoyah Nuclear Plant. An AEC hearing to consider the plant's environmental impacts was held in July 1974. With no intervenor to the proceedings, licensing continued toward the issuance of an operating permit.

Design of the Watts Bar Nuclear Plant was about 33 percent completed and construction of the plant

Smashed homes and property, broken and uprooted trees, and bent and toppled transmission towers were some of the devastating results of tornadoes that ripped widely across the Tennessee Valley region in April.





Engineered systems for public safety and plant protection are integral components of TVA's nuclear power plants. The torus (shown here) is a part of the containment surrounding each of the Browns Ferry reactors. Partly filled with water, it provides a means for limiting any pressure buildup in the highly unlikely event of a reactor coolant pipe break, and also assures a supply of water for the reactor's emergency cooling system pumps which would refill the reactor to prevent the fuel from overheating significantly.

had reached the 10 percent level at the end of the year.

The withdrawal by intervenors in the proposed Bellefonte Nuclear Plant proceedings may allow the issuance by AEC of a limited work authorization so that site and foundation preparation can begin in the fall of 1974. The AEC hearing to consider environmental matters was held in July 1974.

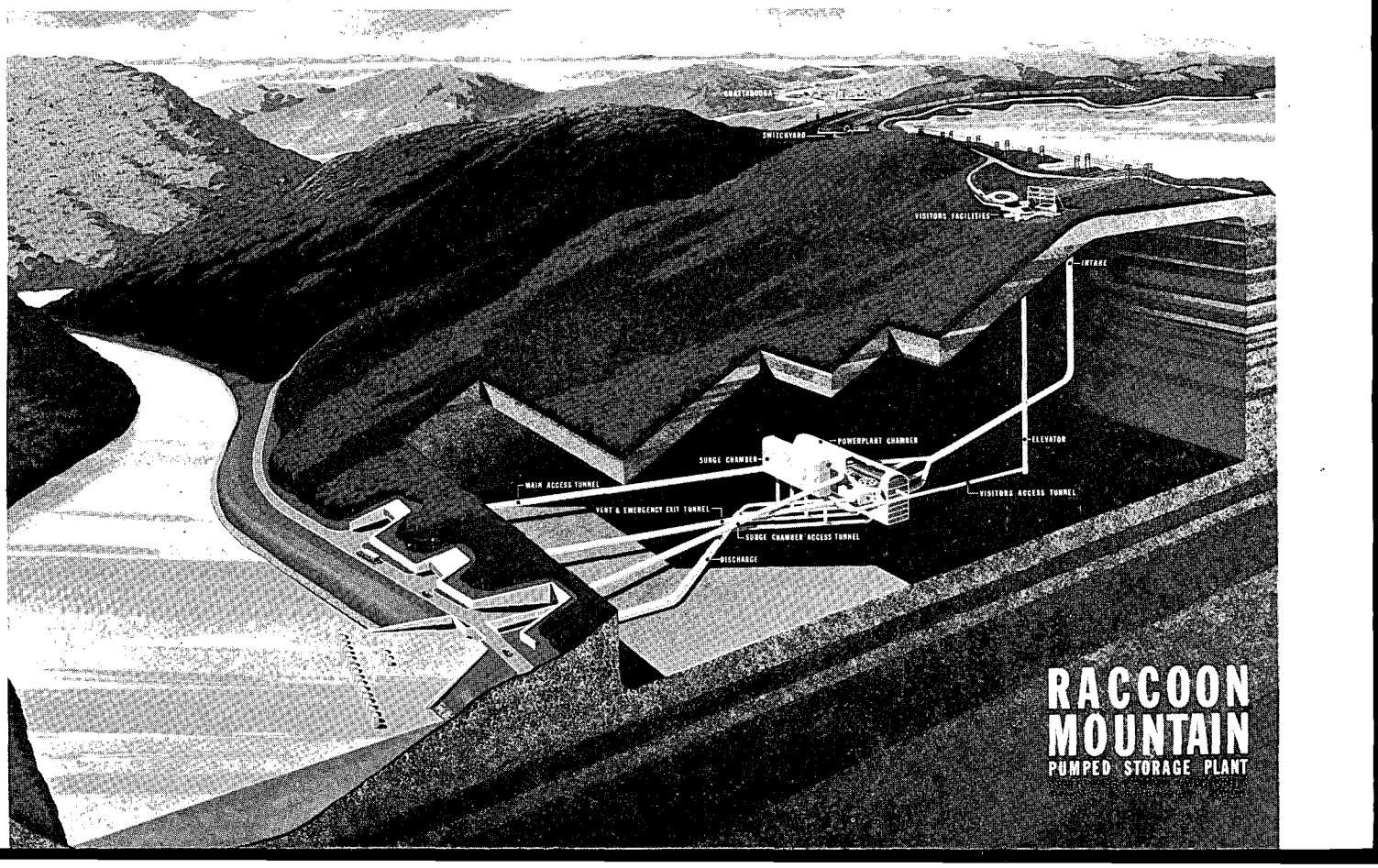
An application for permits to construct two two-unit plants being considered for installation near Hartsville, Tennessee, was prepared for filing. A request for a limited work authorization that would allow site preparation to beging in the spring of 1975 is included in the application.

At the end of the year, TVA began evaluating bids for four additional nuclear steam supply systems for capacity that will be needed in the period 1982-1984. The location for these future generating units has not yet been determined.

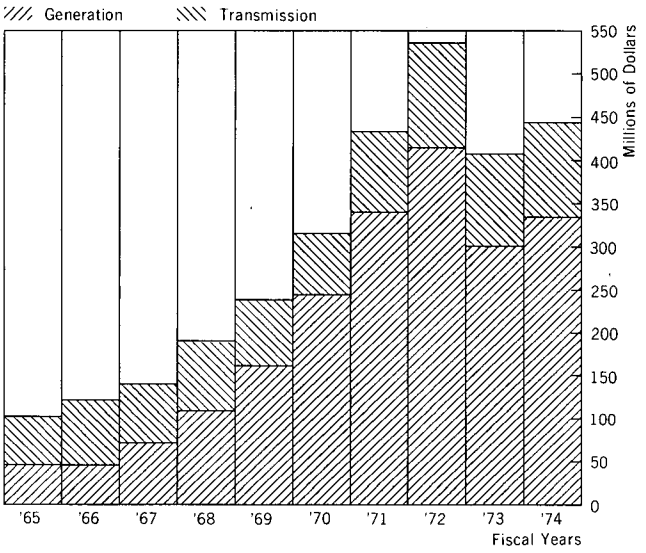
Power Plant Projects

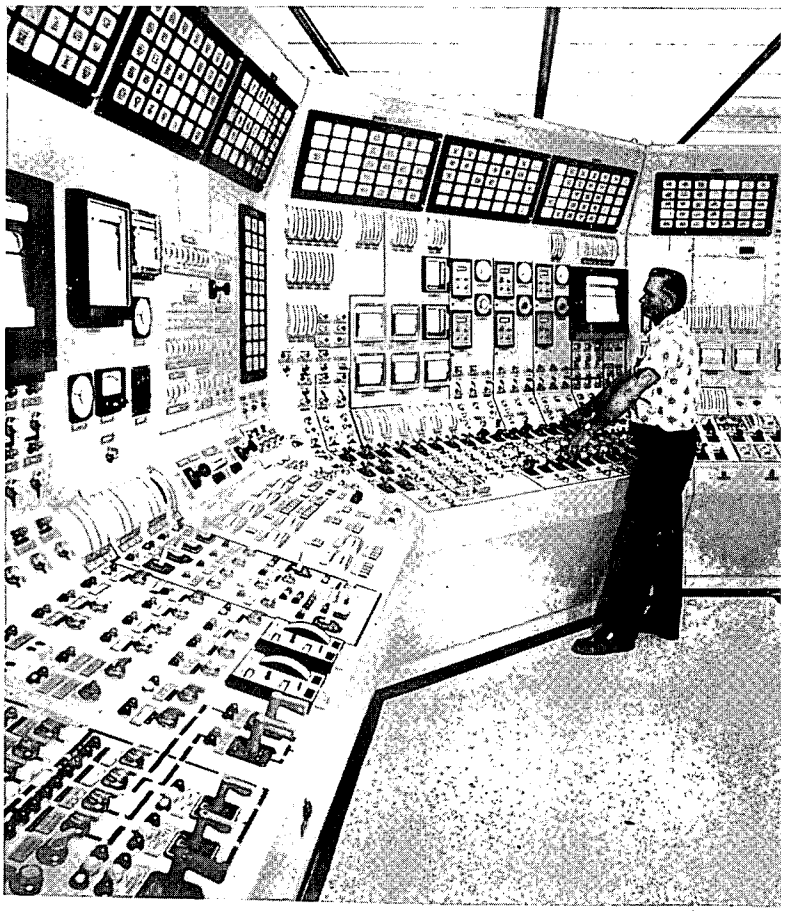
	Total Capacity (megawatts)	Scheduled Operation (calendar years)
Browns Ferry Nuclear Plant	3,456	1974-1975
Raccoon Mountain Pumped-Storage Project	1,530	1975
Combustion Turbines Proposed for Johnsonville	678	1975
Additional Combustion Turbine Capacity	738	1975
Sequoyah Nuclear Plant	2,441	1976-1977
Watts Bar Nuclear Plant	2,540	1978-1979
Proposed Bellefonte Nuclear Plant	2,664	1979-1980
Nuclear Plant being considered for Hartsville site	5,140	1980-1982
Proposed Additional Nuclear Capacity	5,200	1982-1984

At the top of Raccoon Mountain near Chattanooga, nature's natural depression is being modified to turn it into a 528-acre lake. The mountain-top depression will hold water pumped up from the river a thousand feet below — lake water that is held ready for release back down for generation to help meet peak daytime demands for electricity.



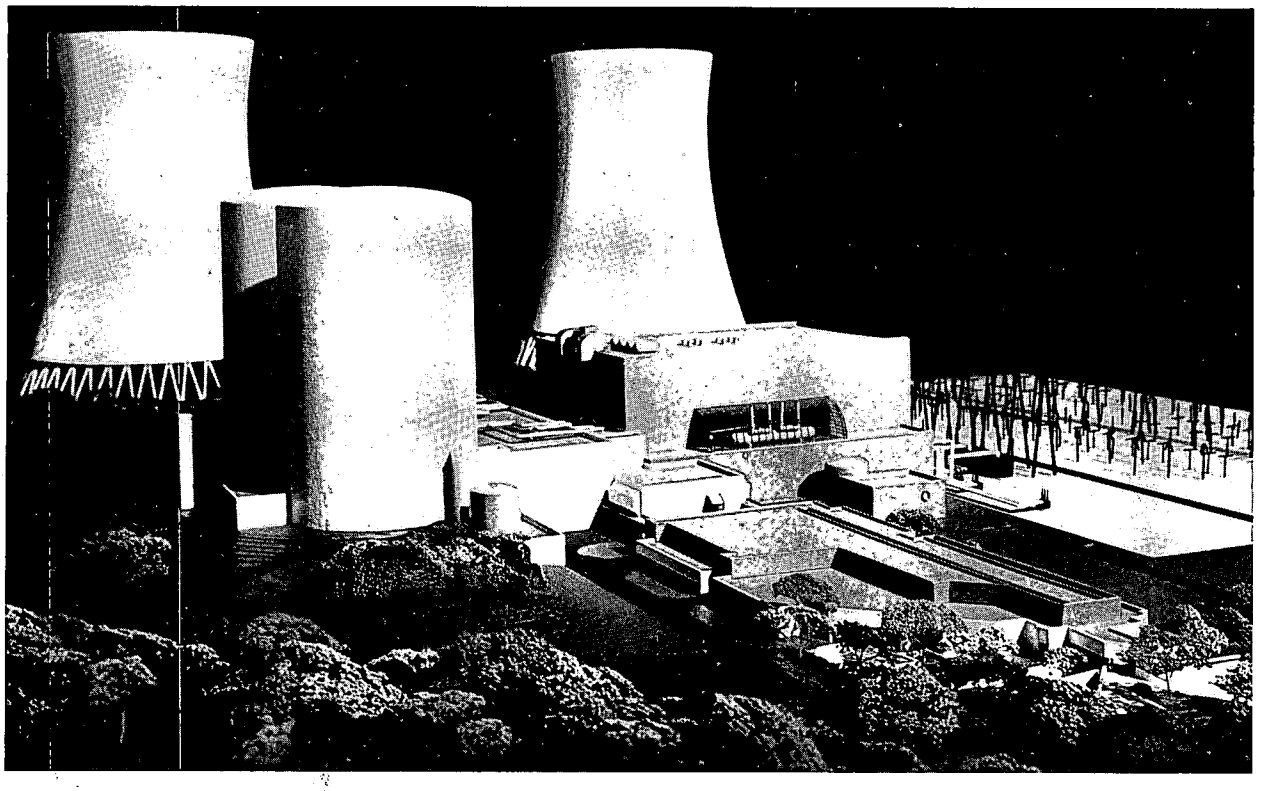
Construction Expenditures





Dials, charts, panels, lights — all in a day's work for a generating unit operator at the Browns Ferry Nuclear Plant.

This model outlines the features of the proposed Bellefonte Nuclear Plant, whose two units are scheduled for operation in 1979-1980 to add 2,664,000 kilowatts to system generating capacity. The round silos (left) will contain the reactors; the building (right) will house the turbine-generators; offices and operating rooms are in foreground; and two hyperbolic cooling towers are in the background.

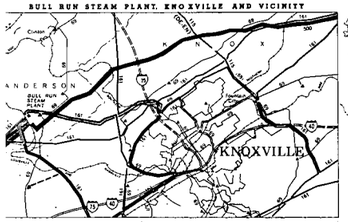


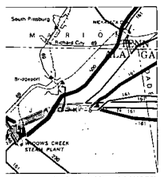
GENERATING PLANTS / *Units in Service on June 30, 1974*

TVA HYDRO PLANTS	NO. UNITS	INSTALLED CAPACITY — KW	FISCAL 1974 NET GENERATION — KWH (MILLIONS)
Apalachia	2	78,900	599.9
Blue Ridge	1	20,000	57.5
Boone	3	75,000	258.8
Chatuge	1	10,000	44.4
Cherokee	4	120,000	535.1
Chickamauga	4	108,000	867.2
Douglas	4	115,000	522.8
Fontana	3	225,000	1,229.3
Fort Loudoun	4	135,590	803.9
Fort Patrick Henry	2	36,000	156.4
Great Falls	2	31,860	175.9
Guntersville	4	97,200	799.6
Hiwassee	2	117,100	404.7
Kentucky	5	175,000	1,125.3
Melton Hill	2	72,000	264.5
Nickajack	4	97,200	668.4
Norris	2	100,800	655.3
Nottely	1	15,000	57.9
Ocoee #1	5	18,000	102.2
Ocoee #2	2	21,000	145.5
Ocoee #3	1	27,000	238.5
Pickwick	6	220,040	1,363.2
South Holston	1	35,000	208.7
Tims Ford	1	45,000	98.9
Watauga	2	50,000	194.0
Watts Bar	5	153,300	1,061.8
Wheeler	11	356,400	1,712.5
Wilbur	4	10,700	33.2
Wilson	21	629,840	3,099.9
Total TVA Hydro	109	3,195,930	17,485.3
TVA COMBUSTION TURBINE PLANTS			
Allen	20	620,800	140.5
Colbert	8	476,000	151.2
Total TVA Combustion Turbine	28	1,096,800	291.7
TVA STEAM PLANTS			
(Coal-Fired)			
Allen	3	990,000	4,668.4
Bull Run	1	950,000	6,159.5
Colbert	5	1,396,500	6,715.8
Cumberland	2	2,600,000	10,137.7
Gallatin	4	1,255,200	6,289.1
John Sevier	4	846,500	3,322.7
Johnsonville	10	1,485,200	6,850.5
Kingston	9	1,700,000	7,962.3
Paradise	3	2,558,200	12,731.1
Shawnee	10	1,750,000	9,540.4
Watts Bar	4	240,000	737.7
Widows Creek	8	1,977,985	8,968.9
(Nuclear)			
Browns Ferry*	—	—	1,947.6
Total TVA Steam	63	17,749,585	86,031.7
Alcoa Dams (12)		423,715	2,408.0
Corps of Engineers Dams (8)		853,000	3,643.0
Total System		**23,319,030**	**109,859.7**
Total Hydro		4,472,645	23,536.3
Total Steam		17,749,585	86,031.7
Total Combustion Turbine		1,096,800	291.7

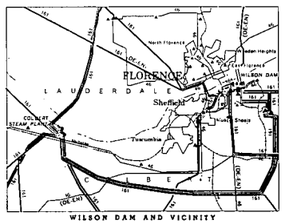
*Unit 1 produced power while in test operation.


TENNESSEE VALLEY AUTHORITY
WATER CONTROL PLANNING DIVISION
MAPS AND SURVEYS BRANCH
TENNESSEE VALLEY REGION
UNCONTROLLED MOSAIC
DATE OF IMAGERY: OCT. 73 — APRIL 74
MOSAIC CONSTRUCTED FROM BLACK & WHITE PHOTO COPIES OF MULTISPECTRAL SCANNER IMAGERY FROM NASA EARTH RESOURCES TECHNOLOGY SATELLITE (ERTS-1)
THE WHITE OUTLINE COVERS APPROXIMATELY 80,000 SQUARE MILES WHERE TVA ELECTRICITY IS SUPPLIED.

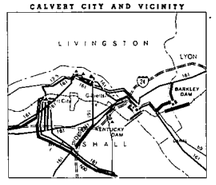


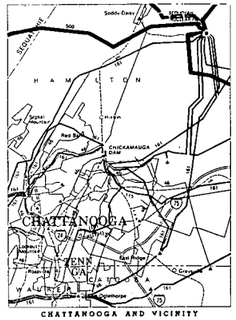


IDOWS CREEK AND VICINITY



WILSON DAM AND VICINITY





CHATTANOOGA AND VICINITY

FINANCIAL STATEMENTS

TENNESSEE VALLEY AUTHORITY: A corporation wholly owned by the United States of America

NET INCOME AND RETAINED EARNINGS – POWER PROGRAM

For the Years Ended June 30, 1974 and 1973

	1974		1973	
	kWh	Amount	kWh	Amount
		(Thousands)		
Operating Revenues				
Sales of electric energy				
Municipalities and cooperatives	64,182,511	$556,166	63,822,013	$476,354
Federal agencies	17,388,119	121,552	17,112,478	103,166
Industries	23,790,067	179,767	21,864,681	144,732
Electric utilities	122,191	1,166	92,169	791
Total outside sales	105,482,888	858,651	102,891,341	725,043
Interdivisional	661,841	4,992	581,272	3,988
Total sales of electric energy	106,144,729	863,643	103,472,613	729,031
Rents		19,983		20,349
Total operating revenues		883,626		749,380
Operating Expenses				
Production		494,156		408,765
Transmission		20,847		18,921
Customer accounts		494		498
Demonstration of power use		1,283		1,272
Administrative and general		29,907		27,379
Payments in lieu of taxes		31,118		27,310
Social security taxes		4,611		3,816
Provision for depreciation		97,083		89,468
Total operating expenses		679,499		577,429
Operating income		204,127		171,951
Other Income and Deductions				
Interest income		—		25
Allowance for funds used (construction and nuclear fuel); note 2		85,992		73,357
Other, net		581*		418
Total other income and deductions		85,411		73,800
Income before interest charges		289,538		245,751
Interest Charges				
Interest on long-term debt		149,178		111,399
Other interest expense; note 2		33,787		27,642
Amortization of long-term debt discount, expense, and premium, net; note 2		419		289
Total interest charges		183,384		139,330
NET INCOME		**106,154**		**106,421**
Payment of return on appropriation investment; note 5		**63,422**		**53,785**
Increase in retained earnings reinvested		42,732		52,636
Retained earnings reinvested at beginning of period		**823,686**		**771,050**
Retained earnings reinvested at end of period		**$866,418**		**$823,686**

*Deduct.

The notes on pages 27-29 are an integral part of the financial statements.

BALANCE SHEETS

June 30, 1974 and 1973

ASSETS

	Power program		All programs	
	1974	1973	1974	1973
	(Thousands)			
Property, Plant, and Equipment, substantially all at original cost				
Completed plant				
Multipurpose dams; note 1	$ 489,745	$ 489,435	$1,015,509	$1,014,358
Single-purpose dams	65,869	65,736	65,869	65,736
Steam production plants	2,137,260	1,944,471	2,137,260	1,944,471
Other electric plant	1,369,060	1,320,837	1,369,060	1,320,837
Other plant	—	—	173,541	164,522
	4,061,934	3,820,479	4,761,239	4,509,924
Less accumulated depreciation and depletion; note 2	1,242,414	1,156,187	1,380,806	1,288,784
Completed plant, net	2,819,520	2,664,292	3,380,433	3,221,140
Construction and investigations in progress; note 3	1,551,961	1,318,645	1,635,750	1,386,808
Nuclear fuel	133,345	93,090	133,345	93,090
Less accumulated provision for amortization, note 2	3,402	—	3,402	—
Nuclear fuel, net	129,943	93,090	129,943	93,090
Total property, plant, and equipment	4,501,424	4,076,027	5,146,126	4,701,038
Current Assets				
Cash	82,723	63,356	111,187	110,082
Accounts receivable	94,437	71,333	104,358	79,241
Inventories, principally at average cost	128,681	140,772	136,118	146,473
Total current assets	305,841	275,461	351,663	335,796
Deferred Charges				
Unamortized debt expense; note 2	891	701	891	701
Other	552	600	552	600
Total deferred charges	1,443	1,301	1,443	1,301
Total assets	**$4,808,708**	**$4,352,789**	**$5,499,232**	**$5,038,135**

The notes on pages 27-29 are an integral part of the financial statements.

LIABILITIES

	Power program		All programs	
	1974	1973	1974	1973
		(Thousands)		
Proprietary Capital				
Appropriation investment; note 4				
Total congressional appropriations	$1,383,467	$1,383,332	$2,683,500	$2,637,824
Transfers of property from other Federal agencies	21,840	21,517	54,100	53,701
	1,405,307	1,404,849	2,737,600	2,691,525
Less repayments to General Fund of the U. S. Treasury; note 5	390,059	370,059	431,686	411,674
Appropriation investment	1,015,248	1,034,790	2,305,914	2,279,851
Retained earnings reinvested in the power program; page 21	866,418	823,686	866,418	823,686
Accumulated net expense of non-power programs; page 25	—	—	624,025*	582,536*
Total proprietary capital	1,881,666	1,858,476	2,548,307	2,521,001
Long-Term Debt				
Principal; note 6	2,125,000	1,775,000	2,125,000	1,775,000
Unamortized discount* and premium, net; note 2	8,604*	6,551*	8,604*	6,551*
Total long-term debt	2,116,396	1,768,449	2,116,396	1,768,449
Short-Term Notes				
U. S. Treasury; note 6	100,000	100,000	100,000	100,000
Other; note 6	570,000	480,000	570,000	480,000
Unamortized discount; note 2	13,901*	7,130*	13,901*	7,130*
Total short-term notes	656,099	572,870	656,099	572,870
Other Current Liabilities				
Accounts payable	112,295	115,146	122,429	125,654
Employees' accrued leave	13,431	12,871	24,388	23,033
Payrolls accrued	6,738	6,104	9,530	8,255
Interest accrued	22,083	17,972	22,083	17,972
Total other current liabilities	154,547	152,093	178,430	174,914
Contributions in Aid of Construction; page 26	—	901	—	901
Commitments; note 3				
Total liabilities	**$4,808,708**	**$4,352,789**	**$5,499,232**	**$5,038,135**

*Deduct.

NET EXPENSE AND ACCUMULATED NET EXPENSE – NONPOWER PROGRAMS

For the Years Ended June 30, 1974 and 1973

	1974	1973
	(Thousands)	
Water Resources Development		
Navigation operations		
Studies and investigations	$ 1,047	$ 975
Operation and maintenance of facilities	5,187	4,985
Total expense of navigation operations	6,234	5,960
Flood control operations		
Studies and investigations	894	1,166
Operation and maintenance of facilities	4,194	3,930
Local flood control improvements	441	7
Total expense of flood control operations	5,529	5,103
Recreation projects		
Recreation resources development	665	682
Operation and maintenance of facilities	1,846	1,785
Total expense of recreation projects	2,511	2,467
Regional water quality management	1,546	1,563
Fisheries and waterfowl resources development	540	494
Preliminary surveys and engineering (including $605,000 in 1974 and $2,065,000 in 1973 related to abandoned projects)	863	2,526
Total expense of water resources development	17,223	18,113
Fertilizer and Munitions Development		
Developmental production		
Cost of products distributed	26,336	26,912
General expenses		
Loss on retirements of manufacturing plant and equipment, net	1,004	71
Gain on sale of phosphate reserves, net	99*	134*
Other general expenses	1,163	1,018
Total general expenses	2,068	955
Total production expense	28,404	27,867
Less transfers and sales of products		
Transfers to TVA programs, at market prices		
Fertilizer industry demonstrations	22,475	19,748
Farm test demonstrations	431	345
Agricultural projects	422	169
Other	95	61
	23,423	20,323
Direct sales	431	70
Total transfers and sales	23,854	20,393
Net expense of developmental production	4,550	7,474
Fertilizer introduction		
Fertilizer industry demonstrations		
Fertilizers used	22,475	19,748
Educational distribution expense	1,392	1,291
	23,867	21,039
Less industry payments for fertilizer	22,057	19,094
	1,810	1,945

*Deduct.

	1974	1973
	(Thousands)	
Fertilizer and Munitions Development (Continued)		
Fertilizer introduction (Continued)		
Farm test demonstrations outside the Valley		
Fertilizers used	$ 431	$ 345
Planning and supervision	661	624
	1,092	969
Less farmer payments for fertilizer	283	192
	809	777
Net expense of fertilizer introduction	2,619	2,722
Research and development	5,650	5,553
Net expense of fertilizer and munitions development	12,819	15,749
General Resources Development		
Agricultural projects		
Agricultural resource development		
Fertilizers used	416	169
Planning and supervision	946	909
	1,362	1,078
Less farmer payments for fertilizer	356	90
	1,006	988
Development investigations and general expenses	604	509
Net expense of agricultural projects	1,610	1,497
Forest and wild land resources development	1,522	1,367
Tributary area development	2,209	1,755
Interagency health services demonstrations	120	—
Regional development planning	636	914
Townlift community improvement	744	723
Demonstrations in education and manpower development	731	803
Minerals projects	269	274
Environmental quality projects	492	430
Net expense of general resources development	8,333	7,763
Land Between The Lakes Operations	2,498	2,306
Valley Mapping and Remote Sensing	482	469
Other Expense, Net	134	—
NET EXPENSE	**41,489**	**44,400**
Accumulated net expense at beginning of period	582,536	538,136
Accumulated net expense at end of period	**$624,025**	**$582,536**

The notes on pages 27-29 are an integral part of the financial statements.

CHANGES IN FINANCIAL POSITION

For the Years Ended June 30, 1974 and 1973

	Power program		All programs	
	1974	1973	1974	1973
	(Thousands)			
Source of Funds				
Program sources				
Net power income; page 21	$ 106,154	$ 106,421	$ 106,154	$ 106,421
Add items not requiring funds; note a	12,404	16,241	12,404	16,241
Funds from power operations	118,558	122,662	118,558	122,662
Sale of power facilities	1,904	665	1,904	665
Funds from power program; note b	120,462	123,327	120,462	123,327
Net expense of nonpower programs; page 25			41,489*	44,400*
Add items not requiring funds; note a			8,283	7,547
Funds used in nonpower operations			33,206*	36,853*
Sale of nonpower facilities			761	1,131
Funds used in nonpower programs			32,445*	35,722*
Debt sources				
Long-term bonds				
Issues	450,000	550,000	450,000	550,000
Redemptions	100,000*	—	100,000*	—
Short-term notes				
Issues	1,375,000	1,520,000	1,375,000	1,520,000
Redemptions	1,285,000*	1,670,000*	1,285,000*	1,670,000*
Total debt sources	440,000	400,000	440,000	400,000
Other sources				
Congressional appropriations	135	226*	45,676	64,550
Property transfers	323	212	399	343
Contributions in aid of construction (reclassified in 1974 to property, plant, and equipment)	901*	3	901*	3
Total source of funds	**$ 560,019**	**$ 523,316**	**$ 573,191**	**$ 552,501**
Disposition of Funds				
Expended for plant and equipment, excluding allowance for funds used	$ 443,745	$ 407,715	$ 474,896	$ 431,436
Less salvage from plant transfers, and depreciation charged to construction and clearing accounts	4,506	2,282	6,922	4,714
	439,239	405,433	467,974	426,722
Payments to U. S. Treasury; note 5				
Return on appropriation investment	63,422	53,785	63,422	53,785
Repayment of appropriation investment	20,000	20,000	20,012	20,029
	83,422	73,785	83,434	73,814
Unamortized debt discount and expense				
Long-term discount	2,411	1,931	2,411	1,931
Short-term discount	6,771	1,611	6,771	1,611
Debt expense	250	261	250	261
	9,432	3,803	9,432	3,803
Changes in working capital (increase or decrease*)				
Cash	19,367	12,593	1,105	23,247
Accounts receivable	23,104	10,163	25,117	8,788
Inventories	12,091*	31,449	10,355*	31,908
	30,380	54,205	15,867	63,943
Less other current liabilities	2,454	13,910	3,516	15,781
	27,926	40,295	12,351	48,162
Total disposition of funds	**$ 560,019**	**$ 523,316**	**$ 573,191**	**$ 552,501**

*Deduct.

The notes on pages 27-29 are an integral part of the financial statements.

Notes to Changes in Financial Position

a. Items not requiring funds:

	Power		Nonpower	
	1974	1973	1974	1973
	(Thousands)			
Provisions for depreciation	$97,083	$89,468	$ 7,370	$ 7,600
Provisions for depletion	266	211	8	10
Loss or gain* on retirements and disposals of property, plant, and equipment, net	581	418*	905	63*
Amortization of long-term debt discount, premium, and expense; and deferred charges — other	466	337	—	—
Allowance for funds used (construction and nuclear fuel)	85,992*	73,357*	—	—
	$12,404	$16,241	$ 8,283	$ 7,547

b. Net power proceeds (see note 6) may be derived as follows:

	Year ended June 30	
	1974	1973
	(Thousands)	
Funds from power program	$120,462	$123,327
Add back interest charges	182,965	139,041
Net power proceeds	$303,427	$262,368

*Deduct.

The notes on pages 27-29 are an integral part of the financial statements.

NOTES TO FINANCIAL STATEMENTS

1. **Allocation of cost of multipurpose projects** — Section 14 of the TVA Act requires TVA's Board of Directors to allocate the cost of completed multipurpose projects, subject to the approval of the President of the United States. The cost of facilities installed exclusively for a single purpose is assigned directly to that purpose; the cost of multiple-use facilities is allocated among the various purposes served.

The total investment of $1,015,509,000 in completed multipurpose dams at June 30, 1974, is classified as follows:

	Investment		
	Direct	Multiple-use	Total
		(Thousands)	
Power	$312,299	$177,446	$ 489,745
Navigation	151,462	137,151	288,613
Flood control	59,656	135,225	194,881
Recreation	267	24,428	24,695
Tributary area development	20	17,555	17,575
Total	$523,704	$491,805	$1,015,509

2. **Summary of significant accounting policies** — Power accounts are kept in accordance with the uniform system prescribed for electric utilities by the Federal Power Commission.

Plant additions and retirements — Additions to plant are recorded at cost, which includes material, labor, overhead, and allowance for funds used. The costs of generation including amortization of nuclear fuel, less credit for the fair value of energy generated during preliminary operations prior to commercial acceptance, are also included in the recorded cost of steam and nuclear generating plants. Except for chemical plant, plant retirements (including original cost and removal cost less salvage) are charged against appropriate accumulated depreciation accounts. Because of the experimental nature of fertilizer and munitions development, losses on early retirement of chemical plant are included in current year operations.

Depreciation and depletion — Straight-line depreciation is provided for substantially on a composite basis. Rates of depreciation are derived from engineering studies of useful life and are reviewed each year. Depletion of coal land and land rights and phosphate land and mineral rights is provided on a unit of production basis.

Allowance for funds used — The practice of capitalizing an allowance for funds used during construction and during the fabrication of nuclear fuels is followed in the power program. The rate is established at the beginning of each 6-month period on the basis of the cost of borrowings during the preceding 12 months. Rates used were 6.5 percent and 7.5 percent during 1974 and 6.0 percent and 6.0 percent during 1973.

Repairs and maintenance — The cost of current repairs and minor replacements is charged to appropriate operating expense and clearing accounts, and the cost of renewals and betterments is capitalized.

Nuclear fuel amortization — The amortization of nuclear fuel is provided on a unit of production basis. Rates are established to amortize the costs over the useful life.

Operating revenues — Revenues from the sale of electric energy include only the amounts billed during the period.

Borrowing expenses — Expenses, discounts, and premiums on power borrowings are amortized on a straight-line basis over the term of the related securities. Amortization of discount on short-term notes is charged to other interest expense.

3. **Estimates of cost to complete major construction projects, commitments, and rental expenses** — The cost to complete the major power projects (including nuclear fuel) under construction or authorized for construction at June 30, 1974, is estimated to be $5,852,700,000 including commitments of $1,688,600,000 for materials and services contracted for and not delivered. The corresponding estimate for multipurpose and nonpower projects is $171,600,000, including commitments of $5,134,000.

NOTES TO FINANCIAL STATEMENTS, continued

On June 22, 1972, the TVA Board of Directors approved a Utility Contribution Agreement with Breeder Reactor Corporation (BRC), a District of Columbia nonprofit corporation. The agreement obligates TVA to pay to Breeder Reactor Corporation the sum of $21.7 million over a 10-year period with equal annual payments beginning December 31, 1972, and ending December 31, 1981. The payment is on behalf of TVA and its distributors in support of the Nation's first commercial-scale liquid metal fast breeder reactor demonstration plant project. At June 30, 1974, the remaining commitment was $16,275,000.

The total rentals charged to power operating expenses and other operating clearing accounts for the years ended June 30, 1974 and 1973, amounted to approximately $11,931,000 and $11,350,000, respectively. At June 30, 1974, the aggregate minimum gross rental commitments of TVA under all noncancelable leases for the periods shown are as follows:

Year	Amount	Years	Amount
	(Thousands)		(Thousands)
1975	$9,826	1980-84	$38,148
1976	9,270	1985-89	5,251
1977	8,696	1990-94	226
1978	8,333	Thereafter	326
1979	8,318		

Minimum gross rental commitments include rentals paid under agreements with the City of Memphis, Tennessee, which provide that (1) TVA sells to the City all the power and energy requirements of its electric distribution system, and (2) the City leases to TVA the Thomas H. Allen steam-electric generating plant with an installed capacity of 990,000 kilowatts. Each agreement is for a term of 20 years, beginning January 1, 1965. The lease agreement provides for annual rental payments of $6,900,000 and grants TVA an option to buy the plant for $2,000,000 at the end of the lease term.

4. **Appropriation investment** — Changes in appropriation investment during the years ended June 30, 1974 and 1973, were as follows:

	Power program		All programs	
	1974	1973	1974	1973
	(Thousands)			
Congressional appropriations	$ 135	$ 226*	$ 45,676	$ 64,550
Transfers of property from other Federal agencies	323	212	399	343
	458	14*	46,075	64,893
Less repayments to General Fund of the U. S. Treasury	20,000	20,000	20,012	20,029
Increase or decrease* for the period	19,542*	20,014*	26,063	44,864
Balance, beginning of period	1,034,790	1,054,804	2,279,851	2,234,987
Balance, end of period	$1,015,248	$1,034,790	$2,305,914	$2,279,851

*Deduct.

An additional appropriation of $77,400,000 as of July 1, 1974, is pending action in the Congress.

5. **Payments to the U. S. Treasury** — Section 15d of the TVA Act requires the payment from net power proceeds of a return on the net appropriation investment in power facilities plus repayments of such investment, beginning with fiscal year 1961. The amount of return payable during each year is based on the appropriation investment as of the beginning of that year and the computed average interest rate payable by the U. S. Treasury on its total marketable public obligations as of the same date. The repayment schedule calls for payment of not less than $10 million for each of the first five years (1961-1965), $15 million for each of the next five years (1966-1970), and $20 million for each year thereafter until a total of $1 billion shall have been repaid. The payments required by Section 15d may be deferred under certain circumstances for not more than two years.

Required payments have been made as follows:

	Return	Repayment	Total
		(Thousands)	
Total to June 30, 1973	$622,988	$185,000	$807,988
Year ended June 30, 1974	63,422	20,000	83,422
	$686,410	$205,000	$891,410

For 1975 the required payments will be $71,372,000 as a return on the appropriation investment at the computed average interest rate of 7.030 percent and $20,000,000 as a repayment, a total of $91,372,000.

In addition to the payments from net power proceeds, $12,000 of nonpower proceeds was paid to the U. S. Treasury in 1974 under the provisions of Section 26 of the TVA Act. This brought the total payments from nonpower proceeds to $41,626,000.

Prior to 1961, under then existing legislation, TVA paid to the Treasury $185,059,000 of power proceeds. In addition to the repayments indicated on page 23, $65,072,000 of bonds sold to the Treasury and Reconstruction Finance Corporation in fiscal years 1939-1941 have been fully repaid from power proceeds. Section 26 of the TVA Act provides for annual payments to the Treasury of any power or nonpower proceeds not needed for the operation of dams and reservoirs, the conduct of the power program, and the manufacture and distribution of fertilizers.

6. **Borrowing authority** — Section 15d of the TVA Act authorizes TVA to issue bonds, notes, and other evidences of indebtedness up to a total of $5 billion outstanding at any one time to assist in financing its power program. Debt service on these obligations, which is payable solely from TVA's net power proceeds, has precedence over the payments to the U. S. Treasury described in note 5. Issues outstanding on June 30, 1974, consist of the following:

Long-term debt		(Thousands)
4.40%	1960 Series A, due Nov. 15, 1985	$ 50,000
4⅝%	1961 Series A, due July 1, 1986	50,000
4½%	1962 Series A, due Feb. 1, 1987	45,000
5.70%	1967 Series A, due May 15, 1992	70,000
6⅜%	1967 Series B, due Nov. 1, 1992	60,000
8¼%	1969 Series B, due Oct. 15, 1994	100,000
9%	1970 Series A, due Mar. 15, 1995	100,000
9¼%	1970 Series B, due June 15, 1995	50,000
8¾%	1970 Series C, due June 15, 1975 (To be refinanced)	50,000
7¼%	1971 Series A, due July 1, 1976	100,000
7.30%	1971 Series B, due Oct. 1, 1996	150,000
7%	1972 Series A, due Jan. 1, 1997	150,000
7.35%	1972 Series B, due May 1, 1997	150,000
7.35%	1972 Series C, due July 1, 1997	150,000
7.40%	1972 Series D, due Oct. 1, 1997	150,000
7.35%	1973 Series A, due Jan. 1, 1998	100,000
7.35%	1973 Series B, due Apr. 1, 1998	150,000
7¾%	1973 Series C, due July 1, 1998	150,000
7.70%	1973 Series D, due Oct. 1, 1998	100,000

8.05% 1974 Series A, due Jan. 1, 1999	100,000
8.10% 1974 Series B, due Apr. 1, 1979	100,000
Total long-term debt	2,125,000
Short-term notes	
U. S. Treasury	100,000
Other	570,000
Total short-term notes	670,000
	$2,795,000

The Federal Financing Bank Act enacted on December 29, 1973, permits designated Federal agencies, including TVA, to borrow directly from the Federal Financing Bank in order to reduce the cost of Federal borrowings. On July 11, 1974, the TVA Board of Directors approved issuance of short-term notes payable to the Federal Financing Bank, not to exceed $350 million outstanding at any one time.

7. **Retirement plan** — TVA has a contributory retirement plan which covers substantially all of its salaried employees. The cost of currently accruing benefits is funded currently, and the unfunded prior service cost is being amortized and funded over a period of 32 years from July 1, 1973. Certain actuarial assumptions used in determining 1974 cost were changed upon recommendation by the actuary; the net effect of the changes reduced the 1974 cost by $2.2 million. The cost of the plan to TVA for the years ended June 30, 1974 and 1973, was $18,104,000 and $18,683,000, respectively.

8. **Litigation** — On July 5, 1972, the Environmental Defense Fund and other plaintiffs filed suit to enjoin TVA from constructing the Duck River project, consisting of the Normandy and Columbia Dams, on various grounds, including alleged failure to comply with the National Environmental Policy Act (NEPA) by, among other things, filing an inadequate environmental impact statement for the project. Following a trial on the NEPA issues, all other issues having been decided in TVA's favor by an earlier court order, the District Court found on March 7, 1974, that the environmental impact statement was deficient in four areas and thereafter enjoined construction of the project effective midnight, March 30, 1974. On TVA's motions the District Court subsequently stayed the injunction through June 29, 1974, to enable work on the project to continue while TVA complied with the law. During the period the injunction has been stayed, TVA has prepared and circulated a draft supplement to the environmental impact statement addressing the deficiencies found by the court in its March 7 memorandum. TVA filed a final supplement with the Council on Environmental Quality on June 18, 1974. On June 14, 1974, plaintiffs filed a notice of appeal to the United States Court of Appeals for the Sixth Circuit from the District Court's order staying the injunction through June 29. On TVA's motion the District Court on July 1, 1974, further stayed the injunction pending appeal and any action for certiorari thereon and until further order of the court. On July 29, 1974, the Court of Appeals denied appellants' motion for an injunction pending appeal and on its own motion dismissed the appeal as moot. Counsel for TVA believe that the revised environmental impact statement complies with the National Environmental Policy Act.

On October 25, 1972, the Natural Resources Defense Council and five other plaintiffs filed suit in the District Court to enjoin TVA from accepting coal under four specified contracts and from entering into any future contracts calling for the purchase of strip-mined coal. Plaintiffs alleged that TVA is violating the National Environmental Policy Act by not requiring separate environmental statements for each contract and that the overall environmental statement filed by TVA on its policies concerning its coal procurement program was inadequate. It was, and is, the view of counsel for TVA that the environmental statement complies with the National Environmental Policy Act. On August 13, 1973, the District Court entered a judgment dismissing the action. The court held, among other things, that TVA is not required to file a separate environmental statement for each contract and that TVA's coal policy environmental statement is adequate compliance with the National Environmental Policy Act. The plaintiffs appealed the District Court's decision and the case was argued orally before the Sixth Circuit Court of Appeals on June 10, 1974. No opinion had been rendered by the Court of Appeals.

COOPERS & LYBRAND

CERTIFIED PUBLIC ACCOUNTANTS

IN PRINCIPAL AREAS OF THE WORLD

To the Board of Directors of
Tennessee Valley Authority:

We have examined the financial statements of TENNESSEE VALLEY AUTHORITY at June 30, 1974 and 1973 and for the years then ended which appear on pages 20 to 29 herein. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the aforementioned financial statements present fairly:

(1) the financial position of the Authority at June 30, 1974 and 1973, and the results of operations and changes in financial position of its several programs for the years then ended; and

(2) the assets and liabilities of the Authority at June 30, 1974 and 1973, relating to the power program, and the results of operations and changes in financial position of that program for the years then ended,

all in conformity with generally accepted accounting principles applied on a consistent basis.

COOPERS & LYBRAND

New York, August 23, 1974.

OPERATING STATISTICS

TENNESSEE VALLEY AUTHORITY: A corporation wholly owned by the United States of America

POWER EARNINGS

(Millions)

	1974	1973	1972	1971	1970
OPERATING REVENUES					
Sales of electric energy					
Municipalities and cooperatives	$556.1	$476.3	$415.3	$379.2	$285.5
Federal agencies	121.5	103.2	73.3	61.9	59.4
Industries	179.8	144.7	124.3	125.0	106.0
Electric utilities	1.2	.8	6.3	10.1	7.6
Interdivisional	5.0	4.0	3.4	3.1	3.0
Total sales of electric energy	863.6	729.0	622.6	579.3	461.5
Rents	20.0	20.3	19.2	18.7	18.1
Total operating revenues	883.6	749.3	641.8	598.0	479.6
OPERATING EXPENSES					
Production	494.2	408.7	325.6	306.1	246.1
Transmission	20.8	18.9	17.8	16.9	15.1
Customer accounts	.5	.5	.4	.4	.3
Demonstration of power use	1.3	1.3	1.2	1.2	1.1
Administrative and general	29.9	27.4	24.0	22.0	18.0
Payments in lieu of taxes	31.1	27.3	25.7	20.0	16.1
Social security taxes	4.6	3.8	3.2	2.9	2.4
Depreciation	97.1	89.5	83.4	80.0	75.1
Other	—	—	—	—	—
Total operating expenses	679.5	577.4	481.3	449.5	374.2
Operating income	204.1	171.9	160.5	148.5	105.4
Other Income and Deductions	85.4	73.8	51.9	48.2	31.6
Income before interest charges and extraordinary item	289.5	245.7	212.4	196.7	137.0
Interest Charges	183.4	139.3	100.3	77.7	62.4
Income before extraordinary item	106.1	106.4	112.1	119.0	74.6
Extraordinary Item	—	—	—	—	—
Net Income	**$106.1**	**$106.4**	**$112.1**	**$119.0**	**$ 74.6**
NET POWER PROCEEDS FROM OPERATIONS					
Income before interest charges and extraordinary item	$289.5	$245.7	$212.4	$196.7	$137.0
Add back noncash items	12.1	16.0	31.8	31.9	43.5
Total	**$301.6**	**$261.7**	**$244.2**	**$228.6**	**$180.5**

*Deduct.

									FISCAL YEARS
1969	**1968**	**1967**	**1966**	**1965**	**1964**	**1963**	**1962**	**1961**	**1960**
$222.2	$197.2	$172.0	$158.2	$136.8	$118.2	$110.6	$ 98.3	$ 91.0	$ 85.4
63.6	78.9	83.9	84.0	82.4	100.7	100.2	101.7	109.9	110.0
92.2	84.2	79.6	71.5	67.1	59.7	52.4	47.9	43.5	43.3
7.3	8.6	10.1	7.9	4.8	3.1	1.2	.3	.2	.3*
2.8	2.7	3.1	3.0	3.0	2.8	2.6	2.3	2.2	2.3
388.1	371.6	348.7	324.6	294.1	284.5	267.0	250.5	246.8	240.7
15.2	12.1	2.4	2.2	1.9	1.9	1.8	1.6	1.5	1.7
403.3	383.7	351.1	326.8	296.0	286.4	268.8	252.1	248.3	242.4
210.3	191.1	187.8	170.4	139.9	134.3	129.6	116.3	119.8	116.6
14.3	13.9	12.9	12.4	12.2	12.0	11.8	11.0	10.7	9.2
.3	.2	.2	.2	.2	.3	.3	.2	.2	.2
1.0	1.0	.9	.8	.8	.8	.8	.8	.7	.6
15.6	14.4	13.3	12.1	11.5	10.9	10.2	9.4	9.2	10.3
14.5	13.1	11.9	10.5	9.1	8.2	7.3	6.7	6.5	6.3
2.2	1.8	1.7	1.2	1.0	1.0	.9	.8	.8	.8
71.6	70.7	65.7	62.6	59.1	56.8	52.8	52.1	50.6	48.7
—	—	—	—	—	—	—	.1	.3	.1
329.8	306.2	294.4	270.2	233.8	224.3	213.7	197.4	198.8	192.8
73.5	77.5	56.7	56.6	62.2	62.1	55.1	54.7	49.5	49.6
16.0	8.1	3.7	5.2	3.9	4.7	6.8	6.8	3.4	1.5
89.5	85.6	60.4	61.8	66.1	66.8	61.9	61.5	52.9	51.1
38.8	26.5	19.7	13.9	11.1	8.6	6.8	5.3	1.3	—
50.7	59.1	40.7	47.9	55.0	58.2	55.1	56.2	51.6	51.1
—	10.3*	—	—	—	—	—	—	—	—
$ 50.7	**$ 48.8**	**$ 40.7**	**$ 47.9**	**$ 55.0**	**$ 58.2**	**$ 55.1**	**$ 56.2**	**$ 51.6**	**$ 51.1**
$ 89.5	$ 85.6	$ 60.4	$ 61.8	$ 66.1	$ 66.8	$ 61.9	$ 61.5	$ 52.9	$ 51.1
55.6	62.6	62.0	57.4	55.2	52.1	46.3	47.3	49.7	48.7
$145.1	**$148.2**	**$122.4**	**$119.2**	**$121.3**	**$118.9**	**$108.2**	**$108.8**	**$102.6**	**$ 99.8**

NET POWER ASSETS

(Millions)

NET ASSETS	1974	1973	1972	1971	1970
Completed plant	$4,061.9	$3,820.5	$3,404.4	$3,317.9	$3,202.9
Less accumulated depreciation	1,242.4	1,156.2	1,075.4	998.0	924.5
Net completed plant	2,819.5	2,664.3	2,329.0	2,319.9	2,278.4
Construction in progress	1,552.0	1,318.6	1,294.3	822.4	481.9
Nuclear fuel	129.9	93.1	63.9	41.5	24.8
Inventories	128.7	140.8	109.3	83.1	37.5
Other current assets less other current liabilities	22.6	17.4*	26.3*	34.9*	16.6
Deferred charges, net	23.9	15.0	11.5	10.0	6.8
Total	**$4,676.6**	**$4,214.4**	**$3,781.7**	**$3,242.0**	**$2,846.0**

DERIVED FROM					
U. S. Treasury funds, gross	$1,470.3	$1,469.9	$1,470.0	$1,466.4	$1,463.5
Less Treasury funds repaid	455.1	435.1	415.2	395.2	375.2
Net U. S. Treasury funds	1,015.2	1,034.8	1,054.8	1,071.2	1,088.3
Long-term debt	2,125.0	1,775.0	1,225.0	675.0	675.0
Short-term notes payable to U. S. Treasury	100.0	100.0	100.0	100.0	100.0
Short-term notes payable to public	570.0	480.0	630.0	680.3	321.0
Advances and contributions	—	.9	.9	.8	.8
Retained earnings	866.4	823.7	771.0	714.7	660.9
Total	**$4,676.6**	**$4,214.4**	**$3,781.7**	**$3,242.0**	**$2,846.0**

Note: In all years, the amounts for "U. S. Treasury funds, gross" include the full $65.1 million of bonds issued by TVA to the Treasury and to the RFC, and the amounts for "Less Treasury funds repaid" include the amounts redeemed. All of these bonds were redeemed by June 30, 1956.

*Deduct.

At June 30

1969	1968	1967	1966	1965	1964	1963	1962	1961	1960
$2,977.3	$2,900.7	$2,792.5	$2,602.6	$2,466.8	$2,335.2	$2,236.3	$2,084.1	$2,042.5	$1,940.3
856.0	789.3	727.2	671.9	614.3	563.8	514.1	463.9	417.8	370.7
2,121.3	2,111.4	2,065.3	1,930.7	1,852.5	1,771.4	1,722.2	1,620.2	1,624.7	1,569.6
386.4	216.3	150.0	203.5	220.6	259.0	247.7	288.0	161.7	116.0
13.2	—	—	—	—	—	—	—	—	—
44.2	51.5	44.9	32.4	39.1	33.3	32.8	35.7	31.8	34.9
2.2	3.6	23.8	7.3	8.4	.5*	17.8*	15.8*	5.5	51.7
6.9	5.1	3.3	2.5	1.4	1.1	1.0	1.0	.4	—
$2,574.2	**$2,387.9**	**$2,287.3**	**$2,176.4**	**$2,122.0**	**$2,064.3**	**$1,985.9**	**$1,929.1**	**$1,824.1**	**$1,772.2**
$1,462.0	$1,461.0	$1,455.2	$1,455.1	$1,454.7	$1,454.4	$1,454.0	$1,453.5	$1,453.1	$1,451.4
360.1	345.1	330.1	315.1	300.1	290.1	280.1	270.1	260.1	250.1
1,101.9	1,115.9	1,125.1	1,140.0	1,154.6	1,164.3	1,173.9	1,183.4	1,193.0	1,201.3
375.0	275.0	215.0	145.0	145.0	145.0	145.0	145.0	50.0	—
100.0	100.0	100.0	100.0	95.0	85.0	50.0	—	—	—
352.7	250.0	202.2	140.0	80.0	35.0	—	—	—	—
.7	.7	.7	.7	.7	.6	.6	.6	.6	.6
643.9	646.3	644.3	650.7	646.7	634.4	616.4	600.1	580.5	570.3
$2,574.2	**$2,387.9**	**$2,287.3**	**$2,176.4**	**$2,122.0**	**$2,064.3**	**$1,985.9**	**$1,929.1**	**$1,824.1**	**$1,772.2**

SYSTEM INPUT, SYSTEM OUTPUT

(Millions of kilowatt-hours)

SYSTEM INPUT	1974	1973	1972	1971	1970
System generation					
Hydro					
TVA plants	17,485.3	18,141.5	15,915.2	12,733.6	12,313.2
ALCOA plants	2,408.0	2,623.2	2,119.7	1,811.7	1,779.3
Cumberland plants	3,643.0	3,693.1	3,257.7	2,737.1	2,447.2
Total hydro	23,536.3	24,457.8	21,292.6	17,282.4	16,539.7
TVA coal-fired plants	84,084.1	84,384.0	73,439.8	74,332.1	76,144.6
TVA nuclear plants	1,947.6	—	—	—	—
Combustion turbine plants	291.7	253.9	71.1	18.3	—
Total net generation	109,859.7	109,095.7	94,803.5	91,632.8	92,684.3
Purchased	1,046.7	670.3	266.1	593.2	459.2
Interchange received	8,520.9	7,288.0	7,075.4	8,889.6	8,141.8
Total input	**119,427.3**	**117,054.0**	**102,145.0**	**101,115.6**	**101,285.3**
SYSTEM OUTPUT					
Sales					
Municipalities and cooperatives	64,182.5	63,822.0	57,820.3	55,534.6	53,692.9
Federal agencies	17,388.1	17,112.5	12,501.8	11,773.5	13,069.6
Industries	23,790.1	21,864.7	19,592.0	21,278.3	22,012.6
Electric utilities	122.2	92.1	539.7	1,407.3	1,273.7
Total outside sales	105,482.9	102,891.3	90,453.8	89,993.7	90,048.8
Interdivisional	661.8	581.3	636.6	653.9	673.5
Total sales	106,144.7	103,472.6	91,090.4	90,647.6	90,722.3
Returned to ALCOA*	1,849.5	1,820.3	1,857.6	1,846.7	1,847.5
Interchange delivered	8,408.2	8,202.7	5,998.1	5,049.4	5,379.7
Losses	3,024.9	3,558.4	3,198.9	3,571.9	3,335.8
Total output	**119,427.3**	**117,054.0**	**102,145.0**	**101,115.6**	**101,285.3**
Generating capacity, June 30 — kilowatts	23,319,030	21,892,480	19,880,420	19,828,380	19,422,480
Area peak load — kilowatts	18,611,000	18,888,000	16,664,000	16,745,000	16,797,000
Monthly billing demands, 12 months — megawatts**	205,730	197,137	178,179	176,610	174,030

*In return for energy delivered to the TVA system from the ALCOA plants.

**The sum of the monthly billing demands of power sold by TVA.

FISCAL YEARS

1969	1968	1967	1966	1965	1964	1963	1962	1961	1960
11,595.4	15,187.8	13,317.9	11,024.4	14,615.5	13,255.3	12,844.7	15,651.3	12,860.8	13,496.7
1,813.3	2,283.8	1,868.9	1,777.1	2,163.0	2,044.4	1,783.1	2,432.5	1,804.0	1,971.3
1,579.2	3,361.6	2,555.3	1,338.0	2,023.6	1,532.6	1,699.0	2,370.8	2,225.4	1,990.8
14,987.9	20,833.2	17,742.1	14,139.5	18,802.1	16,832.3	16,326.8	20,454.6	16,890.2	17,458.8
75,600.9	69,619.4	68,114.0	67,941.9	55,651.7	56,535.5	52,221.6	44,575.9	47,627.0	45,953.9
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
90,588.8	90,452.6	85,856.1	82,081.7	74,453.8	73,367.8	68,548.4	65,030.5	64,517.2	63,412.7
4.3	—	79.7	23.7	—	—	—	—	—	—
7,354.8	5,156.2	5,141.0	2,676.9	2,765.4	3,041.2	2,643.8	2,225.5	2,155.2	2,077.9
97,947.9	**95,608.8**	**91,076.8**	**84,782.0**	**77,219.2**	**76,409.0**	**71,192.2**	**67,256.0**	**66,672.4**	**65,490.6**
49,008.2	44,575.0	40,705.9	37,783.5	32,161.3	27,848.1	25,530.4	22,815.2	21,174.1	20,044.5
14,826.9	18,801.8	20,226.3	20,638.2	20,391.9	25,361.8	25,211.4	25,891.3	28,209.1	28,284.0
20,568.1	19,213.4	18,589.8	16,765.1	15,773.7	14,077.4	12,228.4	10,950.7	10,077.4	10,364.3
1,300.5	1,462.1	1,768.1	1,150.1	769.8	441.8	181.5	65.2	49.1	48.0
85,703.7	84,052.3	81,290.1	76,336.9	69,096.7	67,729.1	63,151.7	59,722.4	59,509.7	58,740.8
670.2	667.8	796.6	768.4	764.1	720.7	666.2	598.8	591.5	601.8
86,373.9	84,720.1	82,086.7	77,105.3	69,860.8	68,449.8	63,817.9	60,321.2	60,101.2	59,342.6
1,756.2	1,863.5	1,688.1	1,694.7	1,638.5	1,865.7	2,049.4	1,962.7	1,913.4	1,890.1
6,808.5	6,204.9	4,614.3	3,430.6	3,490.4	3,839.0	3,441.2	3,278.2	2,915.2	2,494.7
3,009.3	2,820.3	2,687.7	2,551.4	2,229.5	2,254.5	1,883.7	1,693.9	1,742.6	1,763.2
97,947.9	**95,608.8**	**91,076.8**	**84,782.0**	**77,219.2**	**76,409.0**	**71,192.2**	**67,256.0**	**66,672.4**	**65,490.6**
18,239,280	18,202,090	18,111,860	17,149,500	14,675,615	13,353,615	12,711,215	11,998,660	11,884,660	11,373,460
15,017,000	15,266,000	14,634,000	14,263,000	12,801,000	12,218,000	12,124,000	10,889,000	10,322,000	9,641,000
163,861	160,932	157,203	145,557	133,691	126,046	119,112	110,882	108,416	105,363

CUSTOMER STATISTICS

In the following tables, the sales and related statistics for TVA and for the local distributors have been combined to portray total sales to ultimate customers.

Ultimate Customers

JUNE	TOTAL	RESIDENTIAL	COMMERCIAL AND INDUSTRIAL	FEDERAL AGENCIES	OUTDOOR LIGHTING
1974	2,401,581	2,139,476	259,417	11	2,677
1973	2,325,134	2,068,150	254,423	11	2,550
1972	2,236,153	1,987,724	245,965	11	2,453
1971	2,158,423	1,919,208	236,687	11	2,517
1970	2,096,544	1,863,578	230,654	11	2,301
1969	2,047,338	1,817,982	227,179	11	2,166
1968	1,994,065	1,769,141	222,870	11	2,043
1967	1,946,594	1,726,382	218,257	11	1,944
1966	1,895,082	1,679,342	213,927	11	1,802
1965	1,840,791	1,630,547	208,533	10	1,701
1964	1,589,238	1,408,899	178,821	9	1,509
1963	1,547,451	1,371,450	174,675	9	1,317
1962	1,489,367	1,320,950	167,141	9	1,267
1961	1,453,163	1,288,521	163,422	9	1,211
1960	1,413,136	1,252,920	159,087	9	1,120

Electricity Sales — Millions of kilowatt-hours

FISCAL YEAR	TOTAL	RESIDENTIAL	COMMERCIAL AND INDUSTRIAL	FEDERAL AGENCIES	OUTDOOR LIGHTING
1974	102,618	30,602	53,125	18,050	841
1973	99,670	30,637	50,557	17,694	782
1972	87,333	27,474	46,005	13,138	716
1971	85,930	27,291	45,553	12,427	659
1970	86,380	26,835	45,200	13,743	602
1969	82,111	24,449	41,610	15,497	555
1968	80,600	22,174	38,448	19,470	508
1967	77,708	19,945	36,276	21,023	464
1966	73,649	18,736	33,087	21,407	419
1965	67,050	16,501	29,043	21,156	350
1964	66,149	15,069	24,722	26,082	276
1963	61,861	14,026	21,729	25,878	228
1962	58,669	12,492	19,499	26,490	188
1961	58,559	11,631	17,964	28,801	163
1960	58,041	10,936	18,072	28,886	147

Revenue from Electricity Sales — Thousands of dollars

FISCAL YEAR	TOTAL	RESIDENTIAL	COMMERCIAL AND INDUSTRIAL	FEDERAL AGENCIES	OUTDOOR LIGHTING
1974	1,138,887	442,644	545,319	126,544	24,380
1973	992,421	398,253	465,323	107,154	21,691
1972	860,669	352,116	412,374	76,685	19,494
1971	796,426	332,544	381,299	65,010	17,573
1970	667,418	277,153	312,574	62,459	15,232
1969	576,589	231,391	265,294	66,323	13,581
1968	539,668	206,112	239,740	81,669	12,147
1967	492,374	177,055	217,543	87,026	10,750
1966	464,555	168,902	199,281	86,981	9,391
1965	418,705	151,007	174,808	85,344	7,546
1964	397,474	138,555	149,638	103,503	5,778
1963	374,020	131,323	135,315	102,722	4,660
1962	351,808	120,226	123,974	103,991	3,617
1961	343,232	113,748	114,340	112,085	3,059
1960	334,844	108,588	111,227	112,282	2,747

Residential Statistics

FISCAL YEAR	AVERAGE ANNUAL USE	AVERAGE ANNUAL BILL	AVERAGE RATE
1974	14,480 kWh	$209.37	1.45¢
1973	15,080	196.07	1.30
1972	14,040	179.92	1.28
1971	14,400	175.53	1.22
1970	14,560	150.39	1.03
1969	13,600	128.71	.95
1968	12,668	117.74	.93
1967	11,680	103.68	.89
1966	11,294	101.81	.90
1965	10,831	99.12	.92
1964	10,818	99.47	.92
1963	10,406	97.43	.94
1962	9,553	91.94	.96
1961	9,135	89.34	.98
1960	8,806	87.44	.99

Notes: 1. The City of Memphis ceased to be a regular distributor of TVA power in 1958 and its customer statistics are excluded beginning in fiscal year 1959. The City again became a regular distributor January 1, 1965, and its customers statistics are included thereafter.

2. Federal agencies include only TVA's direct service and interdivisional sales.

3. To avoid overstating the number of customers in the region, the number of Outdoor Lighting customers excludes the customers who supplement regular service with the special outdoor lighting fixture. Only public street lighting and athletic field lighting customers are counted. However, the energy sales and revenue figures under Outdoor Lighting do include data for the special fixtures.

FUEL STATISTICS

FISCAL YEARS

Fuel Burned	1974	1973	1972	1971	1970
Steam plants					
Coal — tons	37,367,286[1,3]	35,412,573[4,5]	31,893,192	32,458,437	32,231,605
Oil — gallons	11,816,450	9,247,951	9,966,613	11,124,108	11,653,142
Gas — MCF	9,207,045	10,976,396	18,712,421	17,279,633	16,148,405
Total fuel expense	$327,662,665	$267,648,942	$213,031,932	$195,598,895	$157,478,759
Coal expense per ton	$8.611	$7.425	$6.471	$5.842	$4.727
Oil expense per gallon	$ .247	$ .141	$ .122	$ .130	$ .121
Gas expense per MCF	$ .325	$ .311	$ .291	$ .263	$ .230
Gas turbine plants					
Oil — gallons	26,854,964	18,382,686	3,452,990	1,015,670	—
Gas — MCF	443,725	911,478	515,784	137,256	—
Total fuel expense	$4,676,032	$2,436,855	$581,553	$180,432	—
Oil expense per gallon	$ .167	$ .114	$ .110	$ .127	—
Gas expense per MCF	$ .431	$ .369	$ .392	$ .373	—
Fuel Ratios					
Steam plants					
Fuel expense per kWh generation — mills	3.927	3.351	2.910	2.631	2.068
Btu per kWh net generation	9,770	9,770	9,710	9,690	9,650
Cents per million Btu burned	40.18	34.29	29.96	27.14	21.44
Btu per pound of coal fired	10,760	10,840	10,820	10,796	11,106
Gas turbine plants					
Fuel expense per kWh net generation — mills	16.033	9.596	8.171	9.850	—
Btu per kWh net generation	14,510	13,830	14,297	15,600	—
Cents per million Btu burned	110.51	69.38	57.15	63.14	—
Coal received					
Tons	34,060,316[2]	40,155,580[5]	34,021,932	38,121,872	30,955,067
Mine cost plus transportation	$290,693,725	$298,831,623	$219,486,704	$223,433,213	$139,180,901
Cents per million Btu	39.69	34.44	29.73	27.12	20.25

1. Includes 44,464 tons of petroleum coke costing $449,838 which is estimated at 14,160 Btu per pound.
2. Includes 111,045 tons of petroleum coke costing $1,193,630.
3. Does not include 291,537 tons burned during initial operation of unit 2 of Cumberland Steam Plant.
4. Does not include 2,096,524 tons burned during initial operation of Cumberland Steam Plant.
5. Coal burned and coal receipts include 10,044 tons of petroleum coke costing $79,873.86, which is estimated at 14,200 Btu per pound.