

TENNESSEE VALLEY AUTHORITY



FINANCIAL STATEMENTS

FOR THE

FISCAL YEAR ENDED SEPTEMBER 30, 1979

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Mr. W. F. Willis, General Manager  
Tennessee Valley Authority  
Knoxville, Tennessee

Dear Mr. Willis:

The financial statements of the Tennessee Valley Authority for the years ended September 30, 1979 and 1978, are presented on the following pages. They are accompanied by a report thereon by Coopers & Lybrand, independent certified public accountants, and by related schedules of details for the year ended September 30, 1979, as shown in the index below.

	<u>Exhibit or schedule</u>	<u>Page</u>
Financial statements		
Balance sheets . . . . .	I	2
Statements of operations		
Power program net income and retained earnings . . . . .	II	5
Nonpower programs net expense and accumulated net expense . . . . .	III	7
Changes in financial position . . . . .	IV	8
Notes to financial statements . . . . .		10
Report of independent certified public accountants . . . . .		15
Schedules containing details of		
Property, plant, and equipment		
Completed plant . . . . .	A	19
Construction and investigations in progress, nuclear fuel, and mine and mill development costs . . . . .	B	30
Power expense . . . . .	C	31
Nonpower net expense . . . . .	D	40
Operating expenses of multiple-use facilities . .	E	44
Administrative and general expenses . . . . .	F	45

Very truly yours,



Willard R. Stinson  
Comptroller

November 21, 1979

# TENNESSEE VALLEY AUTHORITY

(A CORPORATION WHOLLY OWNED BY THE UNITED STATES OF AMERICA)

BALANCE SHEETS SEPTEMBER 30, 1979 AND 1978

## ASSETS

	Power program		All programs	
	1979	1978	1979	1978
	(Thousands)			
PROPERTY, PLANT, AND EQUIPMENT, substantially all at original cost				
Completed plant; schedule A				
Multipurpose dams; note 1	\$ 496,488	\$ 495,407	\$ 1,120,750	\$ 1,092,715
Single-purpose dams	346,052	72,869	346,052	72,869
Steam production plants	2,634,519	2,534,622	2,634,519	2,534,622
Nuclear production plants	888,350	885,991	888,350	885,991
Other electric plant	2,071,199	1,876,347	2,071,199	1,876,347
Other plant	-	-	198,303	181,715
	<u>6,436,608</u>	<u>5,865,236</u>	<u>7,259,173</u>	<u>6,644,259</u>
Less accumulated depreciation and depletion; note 2	<u>1,897,514</u>	<u>1,746,118</u>	<u>2,071,427</u>	<u>1,909,207</u>
Completed plant, net	<u>4,539,094</u>	<u>4,119,118</u>	<u>5,187,746</u>	<u>4,735,052</u>
Construction and investigations in progress; schedule B and note 3	<u>5,832,368</u>	<u>4,586,550</u>	<u>6,063,741</u>	<u>4,798,879</u>
Nuclear fuel; schedule B	<u>631,102</u>	<u>485,863</u>	<u>631,102</u>	<u>485,863</u>
Less accumulated amortization and allowance for disposal of spent fuel; schedule B and note 2	<u>183,033</u>	<u>92,817</u>	<u>183,033</u>	<u>92,817</u>
Nuclear fuel, net	<u>448,069</u>	<u>393,046</u>	<u>448,069</u>	<u>393,046</u>
Total property, plant, and equipment	<u>10,819,531</u>	<u>9,098,714</u>	<u>11,699,556</u>	<u>9,926,977</u>
CURRENT ASSETS				
Cash	1,902	38,249	114,930	128,432
Accounts and loans receivable	421,573	328,034	434,272	336,522
Inventories, principally at average cost	<u>610,991</u>	<u>359,502</u>	<u>628,637</u>	<u>374,087</u>
Total current assets	<u>1,034,466</u>	<u>725,785</u>	<u>1,177,839</u>	<u>839,041</u>
DEFERRED CHARGES				
Unamortized debt issue and reacquisition expense; note 2	8,788	9,338	8,788	9,338
Mine and mill development costs; schedule B and note 2	<u>196,115</u>	<u>76,488</u>	<u>196,115</u>	<u>76,488</u>
Total deferred charges	<u>204,903</u>	<u>85,826</u>	<u>204,903</u>	<u>85,826</u>
Total assets	<u>\$12,058,900</u>	<u>\$9,910,325</u>	<u>\$13,082,298</u>	<u>\$10,851,844</u>

Notes 1 through 10 following the exhibits are an integral part of the financial statements.

\*Deduct

## LIABILITIES AND CAPITALIZATION

	Power program		All programs	
	1979	1978	1979	1978
	(Thousands)			
PROPRIETARY CAPITAL				
Appropriation investment; note 4				
Congressional appropriations	\$ 1,384,043	\$1,383,721	\$ 3,310,446	\$ 3,155,915
Transfers of property from other				
Federal agencies	<u>23,644</u>	<u>23,470</u>	<u>57,352</u>	<u>56,587</u>
	1,407,687	1,407,191	3,367,798	3,212,502
Less repayments to General Fund of				
the U.S. Treasury; note 5	<u>495,059</u>	<u>475,059</u>	<u>536,769</u>	<u>516,769</u>
Appropriation investment	912,628	932,132	2,831,029	2,695,733
Retained earnings reinvested in the				
power program; exhibit II	1,295,631	1,227,762	1,295,631	1,227,762
Accumulated net expense of nonpower				
programs; exhibit III	<u>-</u>	<u>-</u>	<u>949,294*</u>	<u>867,375*</u>
Total proprietary capital	<u>2,208,259</u>	<u>2,159,894</u>	<u>3,177,366</u>	<u>3,056,120</u>
LONG-TERM DEBT				
Principal; note 6	6,625,000	5,425,000	6,625,000	5,425,000
Less unamortized discount; note 2	<u>6,050</u>	<u>6,465</u>	<u>6,050</u>	<u>6,465</u>
Total long-term debt	<u>6,618,950</u>	<u>5,418,535</u>	<u>6,618,950</u>	<u>5,418,535</u>
CURRENT LIABILITIES				
Short-term debt; note 6				
U.S. Treasury	150,000	150,000	150,000	150,000
Federal Financing Bank	1,925,000	1,520,000	1,925,000	1,520,000
Long-term debt due within one year	<u>300,000</u>	<u>100,000</u>	<u>300,000</u>	<u>100,000</u>
Short-term debt	2,375,000	1,770,000	2,375,000	1,770,000
Accounts payable	668,396	404,454	702,248	430,358
Employees' accrued leave	22,461	20,928	37,705	35,888
Payrolls accrued	26,322	22,095	31,517	26,524
Interest accrued	<u>139,512</u>	<u>114,419</u>	<u>139,512</u>	<u>114,419</u>
Total current liabilities	<u>3,231,691</u>	<u>2,331,896</u>	<u>3,285,982</u>	<u>2,377,189</u>
COMMITMENTS; note 3				
Total liabilities and capitalization	<u>\$12,058,900</u>	<u>\$9,910,325</u>	<u>\$13,082,298</u>	<u>\$10,851,844</u>



**TENNESSEE VALLEY AUTHORITY**  
**POWER PROGRAM**  
**NET INCOME AND RETAINED EARNINGS**  
**FOR THE YEARS ENDED SEPTEMBER 30, 1979 AND 1978**

EXHIBIT II

	1979		1978	
	kWh	Amount	kWh	Amount
	(Thousands)			
<b>OPERATING REVENUES</b>				
Sales of electric energy				
Municipalities and cooperatives	75,936,357	\$1,810,848	77,875,252	\$1,540,126
Federal agencies	16,169,981	368,741	16,722,347	305,805
Industries	24,912,785	598,180	22,877,485	455,957
Electric utilities	171,642	4,722	175,486	3,897
Interdivisional	497,510	12,813	295,320	6,523
Revenue credit due customers; note 9	-	163,000*	-	-
Total sales of electric energy	<u>117,688,275</u>	<u>2,632,304</u>	<u>117,945,890</u>	<u>2,312,308</u>
Rents		23,483		37,023
Discounts and penalties		108		100
Other miscellaneous revenues		994		703
Total operating revenues		<u>2,656,889</u>		<u>2,350,134</u>
<b>OPERATING EXPENSES; schedule C</b>				
Production				
Fuel		1,108,674		1,035,056
Other		485,332		504,868
Transmission		31,875		27,491
Customer accounts		767		706
Demonstration of power use		12,114		4,261
Administrative and general		93,556		81,559
Payments in lieu of taxes		100,024		79,872
Social security taxes		14,633		11,727
Provision for depreciation		160,573		150,447
Total operating expenses		<u>2,007,548</u>		<u>1,895,987</u>
Operating income		<u>649,341</u>		<u>454,147</u>
<b>OTHER INCOME AND DEDUCTIONS</b>				
Interest income		740		428
Other, net		7,959*		127*
Total other income and deductions		<u>7,219*</u>		<u>301</u>
Income before interest charges		<u>642,122</u>		<u>454,448</u>
<b>INTEREST CHARGES</b>				
Interest on long-term debt		478,986		419,434
Other interest expense		179,153		66,377
Allowance for borrowed funds used (construction and nuclear fuel); note 2		153,749*		248,967*
Amortization of long-term debt discount and expense; note 2		995		1,036
Net interest charges		<u>505,385</u>		<u>237,880</u>
NET INCOME		<u>136,737</u>		<u>216,568</u>
Return on appropriation investment; note 5		<u>68,868</u>		<u>61,716</u>
Increase in retained earnings reinvested		67,869		154,852
Retained earnings reinvested at beginning of period		<u>1,227,762</u>		<u>1,072,910</u>
Retained earnings reinvested at end of period		<u>\$1,295,631</u>		<u>\$1,227,762</u>

Notes 1 through 10 following the exhibits are an integral part of the financial statements.

\*Deduct





TENNESSEE VALLEY AUTHORITY  
NONPOWER PROGRAMS  
NET EXPENSE AND ACCUMULATED NET EXPENSE  
FOR THE YEARS ENDED SEPTEMBER 30, 1979 AND 1978

EXHIBIT III

	1979	1978
	(Thousands)	
REGIONAL RESOURCES DEVELOPMENT		
Navigation operations	\$ 7,709	\$ 7,306
System flood control operations	6,016	5,670
Recreation development	4,747	4,531
Tributary area development	3,209	2,925
Regional water quality management	1,472	1,290
Fisheries and wildlife resources development	1,459	1,136
Preliminary surveys and engineering	343	306
Environmental education	493	374
Valley agricultural development	2,720	2,014
Forest resources development	2,247	2,334
Strip mine reclamation demonstrations	2,041	3,677
Interagency health services demonstrations	606	324
Regional economic studies	775	726
Townlift community improvement	750	793
Human resources development	764	679
Minerals resources projects	319	327
Special opportunities counties program	484	1,250
Minority economic development	677	111
Local flood damage prevention operations	8,869	7,014
Environmental quality projects	506	480
Net expense of regional resources development	46,206	43,267
FERTILIZER DEVELOPMENT; note 2		
Research and development	11,065	10,893
Fertilizer introduction		
Fertilizer industry demonstrations	2,737	2,845
Farm test demonstrations outside the Valley	1,126	1,155
Net expense of fertilizer introduction	3,863	4,000
Developmental production		
Cost of products distributed	28,716	26,663
General expenses		
Loss on retirements of manufacturing plant and equipment, net	417	139
Gain on sale of phosphate reserves, net	71*	107*
Administrative and general	226	582
Other	890	430
Total general expenses	1,462	1,044
Total production expense	30,178	27,707
Less transfers and sales of products		
Transfers to other TVA programs, at market prices	21,687	20,978
Direct sales	151	335
Total transfers and sales	21,838	21,313
Net expense of developmental production	8,340	6,394
Net expense of fertilizer development	23,268	21,287
NATIONAL ENERGY DEMONSTRATIONS	4,698	609
LAND BETWEEN THE LAKES OPERATIONS	5,547	5,509
VALLEY MAPPING AND REMOTE SENSING	1,012	771
OTHER EXPENSE, NET	1,188	972
NET EXPENSE; schedule D	81,919	72,415
Accumulated net expense at beginning of period	867,375	794,960
Accumulated net expense at end of period	\$949,294	\$867,375

Notes 1 through 10 following the exhibits are an integral part of the financial statements.

\*Deduct

**TENNESSEE VALLEY AUTHORITY**  
**CHANGES IN FINANCIAL POSITION**  
**FOR THE YEARS ENDED SEPTEMBER 30, 1979 AND 1978**

EXHIBIT IV  
PAGE 1

	Power program		All programs	
	1979	1978	1979	1978
	(Thousands)			
<b>SOURCE OF FUNDS</b>				
Program sources				
Net power income; exhibit II	\$ 136,737	\$ 216,568	\$ 136,737	\$ 216,568
Items not requiring funds; note a	67,707	58,821*	67,707	58,821*
Funds from power operations	204,444	157,747	204,444	157,747
Sale of power facilities	2,669	2,171	2,669	2,171
Funds from power program; note b	207,113	159,918	207,113	159,918
Net expense of nonpower programs; exhibit III			81,919*	72,415*
Add items not requiring funds; note a			9,106	8,232
Funds used in nonpower operations			72,813*	64,183*
Sale of nonpower facilities			362	342
Funds used in nonpower programs			72,451*	63,841*
Debt sources				
Long-term bonds				
Issues	1,500,000	800,000	1,500,000	800,000
Redemptions	100,000*	-	100,000*	-
Short-term notes				
Issues	7,795,000	4,280,000	7,795,000	4,280,000
Redemptions	7,390,000*	3,740,000*	7,390,000*	3,740,000*
Total debt sources	1,805,000	1,340,000	1,805,000	1,340,000
Other sources				
Congressional appropriations	500	320	154,531	138,510
Property transfers	174	261	765	528
Total other sources	674	581	155,296	139,038
Total source of funds	\$2,012,787	\$1,500,499	\$2,094,958	\$1,575,115
<b>DISPOSITION OF FUNDS</b>				
Expended for plant and equipment, excluding allowance for borrowed funds used	\$1,797,320	\$1,460,951	\$1,860,624	\$1,527,033
Less:				
Depreciation charged to construction and clearing accounts	4,456	3,620	6,874	5,766
Cost of removing retired facilities and salvage from retained materials	2,487	329	2,321	302
	1,790,377	1,457,002	1,851,429	1,520,965
Payments to U.S. Treasury; note 5				
Return on appropriation investment	68,868	61,716	68,868	61,716
Repayment of appropriation investment	20,000	20,000	20,000	20,014
	88,868	81,716	88,868	81,730
Unamortized debt discount and expense and other deferred charges				
Mine and mill development cost	119,627	39,395	119,627	39,395
Debt issue expense	30	16	30	16
	119,657	39,411	119,657	39,411
Changes in working capital (increase or decrease*)				
Cash	36,347*	26,921*	13,502*	15,481*
Accounts receivable	93,538	109,453	97,750	110,140
Inventories	251,489	13,495*	254,550	12,194*
	308,680	69,037	338,798	82,465
Less other current liabilities (excluding short-term debt)	294,795	146,667	303,794	149,456
	13,885	77,630*	35,004	66,991*
Total disposition of funds	\$2,012,787	\$1,500,499	\$2,094,958	\$1,575,115

\*Deduct

TENNESSEE VALLEY AUTHORITY  
 CHANGES IN FINANCIAL POSITION  
 FOR THE YEARS ENDED SEPTEMBER 30, 1979 AND 1978

EXHIBIT IV  
 PAGE 2

NOTES:

a. Items not requiring funds:

	Power		Nonpower	
	1979	1978	1979	1978
	(Thousands)			
Provision for depreciation	\$160,573	\$150,447	\$8,760	\$8,200
Provision for depletion	603	333	-	-
Provision for depreciation of mining equipment	3,618	-	-	-
Amortization of nuclear fuel	47,708	38,203	-	-
Net loss on retirements and disposals of property, plant, and equipment	7,959	127	346	32
Amortization of long-term debt discount and expense	995	1,036	-	-
Allowance for borrowed funds used (construction and nuclear fuel)	<u>153,749*</u>	<u>248,967*</u>	<u>-</u>	<u>-</u>
	<u>\$ 67,707</u>	<u>\$ 58,821*</u>	<u>\$9,106</u>	<u>\$8,232</u>

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

	Year ended September 30	
	1979	1978
	(Thousands)	
Funds from power program	\$207,113	\$159,918
Add back interest charges	<u>658,139</u>	<u>485,811</u>
Net power proceeds	<u>\$865,252</u>	<u>\$645,729</u>

Notes 1 through 10 following the exhibits are an integral part of the financial statements.

\*Deduct

**TENNESSEE VALLEY AUTHORITY**  
**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 \$1,120,750,000 in completed multipurpose dams at September 30, 1979, is classified as follows:

	<u>Direct</u>	<u>Investment Multiple-use (Thousands)</u>	<u>Total</u>
Power	\$319,339	\$177,149	\$ 496,488
Navigation	153,088	137,281	290,369
Flood control	61,595	159,373	220,968
Recreation	1,324	66,073	67,397
Tributary area development	<u>19</u>	<u>45,509</u>	<u>45,528</u>
Total	<u>\$535,365</u>	<u>\$585,385</u>	<u>\$1,120,750</u>

2. Summary of significant accounting policies--Power accounts are kept in accordance with the uniform system prescribed by the Federal Energy Regulatory Commission.

Plant additions and retirements--Additions to plant are recorded at cost, which includes material, labor, overhead, and allowance for funds used which is applicable to major generating facilities. The costs of generation during preliminary operations prior to commercial acceptance including amortization of nuclear fuel less credit for the fair value of energy generated are also included in the recorded costs 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 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 including decommissioning costs of nuclear units, 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 in the power program was modified in the fourth quarter of fiscal year 1979 (retroactive to October 1, 1978) in accordance with the TVA Board of Directors criteria for establishing wholesale power rates. The effect of this change was to make the allowance applicable only to the construction of major generating facilities and limit the amount to the sum of depreciation and other current period noncash charges less the amount of the repayment of the appropriation investment as prescribed in section 15d of the TVA Act. The method used provides for the calculation each month of the interest on the most recent debt issues that are equivalent to the average balance of construction work in progress for major generating facilities subject to the limitation described. The limitation reduced net income and the amount of allowance for funds used during construction that would have been otherwise determined for fiscal year 1979 by \$224,955,000 and reduced the equivalent average capitalization rate for fiscal year 1979 from 8.62 percent to 3.95 percent which compares with 7.57 percent for fiscal year 1978.

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.

Mine and mill development costs--Deferred mine and mill development costs are assigned to coal inventory and nuclear fuel on a unit of production basis determined in relation to estimated ore reserves.

**TENNESSEE VALLEY AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS--CONTINUED**

Operating revenues and energy costs--Revenues from the sale of electric energy are recorded only when billed. An adjustment addendum providing for monthly billing charges to reflect increases or decreases in fuel and purchased power costs was terminated effective in January 1979. These costs are now included for consideration in the quarterly rate reviews.

Borrowing expenses--Issue and reacquisition expenses and discounts on power borrowings from the public are amortized on a straight-line basis over the term of the related securities. Issue expenses on power borrowings from the Federal Financing Bank are amortized over a five-year period except that amounts under \$6,000 are expensed as incurred.

Research and development--Research and development costs are expensed as incurred (approximately \$40,735,000 in 1979 and \$31,868,000 in 1978) except for those costs which relate to specific power program capital projects.

Sales of fertilizer--Sales of fertilizer materials are not made on a commercial basis, but are made to organizations collaborating in an experimental and educational program aimed at improving the manufacture, distribution, and use of fertilizers.

3. Construction projects, commitments, and rental expenses--The construction budgets for fiscal year 1980 are \$2,000,587,000 for power projects and \$71,067,000 for multipurpose and nonpower projects. Substantial commitments have been incurred for these projects.

The total rentals charged to power operating expenses and other operating clearing accounts for the years ending September 30, 1979 and 1978, amounted to approximately \$20,128,350 and \$20,484,000, respectively. At September 30, 1979, the aggregate minimum gross rental commitments of TVA under all noncancelable leases for the periods shown are as follows: 1980, \$18,246,000; 1981, \$15,393,000; 1982, \$13,955,000; 1983, \$12,967,000; 1984, \$12,554,000; and thereafter, \$44,256,000.

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 September 30, 1979 and 1978, were as follows:

	Power program		All programs	
	1979	1978	1979	1978
	(Thousands)			
Congressional appropriations, net	\$ 322	\$ 419*	\$ 154,531	\$ 138,510
Transfers of property from other Federal agencies	174	261	765	528
	496	158*	155,296	139,038
Less repayments to General Fund of the U.S. Treasury	20,000	20,000	20,000	20,014
Increase or decrease* for the period	19,504*	20,158*	135,296	119,024
Balance, beginning of period	932,132	952,290	2,695,733	2,576,709
Balance, end of period	<u>\$912,628</u>	<u>\$932,132</u>	<u>\$2,831,029</u>	<u>\$2,695,733</u>

\*Deduct

An appropriation of \$148,677,000 was made by Public Law No. 96-69, approved September 25, 1979, for the fiscal year beginning October 1, 1979.

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.

TENNESSEE VALLEY AUTHORITY  
NOTES TO FINANCIAL STATEMENTS—CONTINUED

Required payments have been made as follows:

	<u>Return</u>	<u>Repayment</u> (Thousands)	<u>Total</u>
Total to September 30, 1978	\$ 964,904	\$290,000	\$1,254,904
Year ended September 30, 1979	68,868	20,000	88,868
	<u>\$1,033,772</u>	<u>\$310,000</u>	<u>\$1,343,772</u>

For fiscal year 1980 the required payments will be \$78,413,000 as a return on the appropriation investment at the computed average interest rate of 8.592 percent and \$20,000,000 as a repayment, a total of \$98,413,000.

In addition to the payments from net power proceeds, \$132 of nonpower proceeds was paid to the U.S. Treasury in fiscal year 1979 under the provisions of Section 26 of the TVA Act. This brought the total payments from nonpower proceeds to approximately \$41,710,000.

Prior to 1961, under then existing legislation, TVA paid to the Treasury \$185,059,000 of power proceeds. In addition to the repayments indicated in Exhibit I, \$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 \$15 billion (effective October 31, 1979, increased to \$30 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 payment to the U.S. Treasury described in note 5. Issues outstanding on September 30, 1979, consist of the following:

	(Thousands)
Long-term debt	
4.40% 1960 Series A, due November 15, 1985	\$ 50,000
4-5/8% 1961 Series A, due July 1, 1986	50,000
4-1/2% 1962 Series A, due February 1, 1987	45,000
5.70% 1967 Series A, due May 15, 1992	70,000
6-3/8% 1967 Series B, due November 1, 1992	60,000
8-1/4% 1969 Series B, due October 15, 1994	100,000
7.30% 1971 Series B, due October 1, 1996	150,000
7% 1972 Series A, due January 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 October 1, 1997	150,000
7.35% 1973 Series A, due January 1, 1998	100,000
7.35% 1973 Series B, due April 1, 1998	150,000
7-3/4% 1973 Series C, due July 1, 1998	150,000
7.70% 1973 Series D, due October 1, 1998	100,000
8.05% 1974 Series A, due January 1, 1999	100,000
8.05% 1975 Series A, due January 31, 1990 (FFB)	200,000
8.70% 1975 Series B, due March 31, 2000 (FFB)	100,000
8.35% 1975 Series C, due May 31, 1988 (FFB)	200,000
8.47% 1975 Series D, due July 31, 2000 (FFB)	200,000
8.485% 1975 Series E, due October 31, 2000 (FFB)	300,000
8.175% 1976 Series A, due February 28, 2001 (FFB)	300,000
7.97% 1976 Series B, due November 30, 2001 (FFB)	400,000
7.625% 1976 Series C, due January 31, 2002 (FFB)	200,000
7.975% 1977 Series A, due February 28, 2002 (FFB)	300,000
7.935% 1977 Series B, due May 31, 2002 (FFB)	400,000
8% 1977 Series C, due October 31, 2002 (FFB)	400,000
8.375% 1978 Series A, due January 31, 2003 (FFB)	400,000
9.296% 1979 Series A, due February 28, 1989 (FFB)	500,000
9.155% 1979 Series B, due May 31, 1987 (FFB)	500,000
9.195% 1979 Series C, due August 31, 2004 (FFB)	500,000
Total long-term debt	<u>6,625,000</u>
Short-term debt	
U.S. Treasury	150,000
Federal Financing Bank (FFB)	1,925,000
Long-term debt due within one year	300,000
Total short-term debt	<u>2,375,000</u>
	<u>\$9,000,000</u>

TENNESSEE VALLEY AUTHORITY  
NOTES TO FINANCIAL STATEMENTS--CONTINUED

During fiscal years 1979 and 1978, the maximum amount of short-term borrowings outstanding, exclusive of long-term debt due within one year, was \$2,166,000,000 and \$1,612,000,000, respectively, and the average amount (and weighted average interest rates) of such borrowings was approximately \$1,920,000,000 (9.3 percent) and \$1,001,000,000 (6.6 percent), respectively.

An additional \$400 million bond issue, 10.545 percent 1979 Series D, due October 31, 2004, was sold to the Federal Financing Bank in October 1979.

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. The cost of the plan to TVA was \$48,823,000 in 1979 and \$38,060,000 in 1978, including amortization of unfunded prior service costs over the average future careers of active members. The actuarially computed pension fund assets as of September 30, 1978, the latest actuarial valuation date, exceeded the actuarially computed value of vested benefits of the plan.

8. Litigation--Six citizens' suits were filed in six different district courts under the Clean Air Act, alleging that the sulfur dioxide emissions from 10 of TVA's coal-fired steam plants and the particulate emissions from 7 coal-fired plants violate the emission standards set by the states. Plaintiffs include the States of Kentucky and Alabama and the United States of America at the request of the Environmental Protection Agency. Five of the cases were consolidated in the United States District Court for the Middle District of Tennessee; the other was filed in the United States District Court for the Northern District of Alabama. Plaintiffs asked that the courts order TVA to comply with the applicable emission standards as expeditiously as possible. In addition, the State of Alabama specifically asked the court to restrict operation of Widows Creek and Colbert Steam Plants until final compliance is achieved and assess a State penalty of \$10,000 per day per violation. A proposed settlement agreement was approved in December 1978 and presented to the courts for approval. This proposed agreement specifies compliance schedules to control both sulfur dioxide and particulate emissions at TVA steam plants and provides for stipulated daily penalties if TVA does not meet these schedules. The agreement waives any TVA liability for penalties and fines for past violations. The reference in the agreement as originally drafted to a Cumberland Steam Plant scrubber project and activities in lieu of penalties has been deleted, based on new air quality information. The Alabama district court has approved the agreement. While the agreement as submitted to the courts is in full satisfaction of all State or Federal civil penalties, TVA is still subject by law to the mandatory noncompliance penalties under section 120 of the Clean Air Act Amendments of 1977 which will be levied separate and apart from this action on all sources not in compliance after July 1, 1979. Several of TVA's steam plants were not in compliance on that date. The amount of these mandatory noncompliance penalties is based on the economic value of noncompliance to the owner, less any amounts actually expended by the source toward achieving compliance. The amount of these payments cannot be determined until EPA issues guidelines and regulations. It is TVA's position that under the act no penalties are due, based in part on the act's exemption from penalties for sources under consent decrees.

A residential electric consumer of the Memphis Light, Gas, and Water Division (Memphis) filed a class action suit against it and its governing Board in the Chancery Court of Shelby County, Tennessee, on June 9, 1978. Plaintiff claimed that the operation of the fuel cost and purchased power automatic adjustment formula then contained in the TVA resale rate schedule applied to him and his class violates the Fourteenth Amendment's due process clause and the Tennessee statutes which require rate changes by Memphis to receive prior approval by the Memphis City Council. In addition to declaratory and injunctive relief, plaintiff seeks a judgment for over \$110 million allegedly collected by Memphis under the automatic adjustment formula since 1974. The case was removed to Federal court, TVA was joined as a party, and plaintiff amended his complaint to charge TVA with a violation of the Fifth Amendment's due process clause on the same facts. The court granted judgment on the pleadings for TVA and Memphis, and the case is now pending an appeal before the United States Court of Appeals for the Sixth Circuit. In TVA's opinion the judgment should be affirmed.

The injunction against the Tellico project, which was involved in Tennessee Valley Authority v. Hill in the United States Supreme Court was formally dissolved by the district court following congressional passage and the President's approval of an act exempting the project from "the provisions of 16 U.S.C. chapter 35 or any other law."

Following the October 27, 1978, oral opinion by the court in TVA's suit against Westinghouse Electric Corporation, which found that Westinghouse had not carried its burden of proof on its defense under UCC § 2-615 or the uranium fuel contracts' force majeure clauses, the case was settled by agreement. The agreement included the withdrawal of TVA's appeal to the Fourth Circuit, discussed last year, and resolution of all of both parties' outstanding claims under the fuel contracts and other related contracts. Under the terms of the settlement TVA received cash, uranium properties, improvements in fuel fabrication contracts, and equipment and services having a value to TVA of about \$130 million. Westinghouse also will deliver to TVA 560,000 pounds of uranium at the \$8.24 price specified in the Watts Bar nuclear fuel contract.

TENNESSEE VALLEY AUTHORITY  
 NOTES TO FINANCIAL STATEMENTS--CONTINUED

On November 18, 1977, TVA filed antitrust suits against 10 foreign uranium producers and 3 domestic firms. The complaints were filed in U.S. District Courts in Chattanooga, Denver, and New York City, and alleged unlawful agreements among the defendants to fix uranium prices and allocate world uranium markets, which resulted in damages to TVA in an amount which cannot yet be determined. The cases were consolidated in Chicago for pretrial purposes by the Judicial Panel on Multidistrict Litigation. The consolidated proceeding is being coordinated with the Westinghouse v. Rio Algom Ltd., et al. antitrust litigation currently pending in Chicago. Discovery is now underway. Defaults have been entered by the clerk against certain of the foreign defendants who did not appear, including Rio Algom Ltd. (Rio). Rio has sued TVA in Canada for \$2.2 billion for alleged breach of the same contract which is involved in TVA's suit against Rio, and which TVA has asked the court to find void. In TVA's opinion, there is little likelihood of a recovery by Rio.

In a suit brought by the Attorney General of Alabama, the United States District Court for the Northern District of Alabama has ruled that Section 8(a) of the TVA Act requires TVA to maintain its "headquarters" in the immediate vicinity of Muscle Shoals, Alabama. TVA has appealed the decision, and the court has stayed, pending the appeal, an injunction which requires TVA to relocate its "headquarters" from Knoxville, Tennessee, to Muscle Shoals. TVA expects the United States Court of Appeals for the Fifth Circuit to reverse the district court's order.

9. Revenue credit due customers--On August 24, 1979, the TVA Board of Directors determined that there would be an excess of power revenues in the amount of \$163 million for fiscal year 1979 and that such excess should be credited to customers in calculating monthly power bills during the first six months of fiscal year 1980.

10. Subsequent event--Effective October 31, 1979, TVA sold and leased back all of its nuclear fuel for approximately \$490 million. Rental payments will be charged to operations in amounts equal to the cost of the fuel burned plus finance charges.



COOPERS & LYBRAND  
CERTIFIED PUBLIC ACCOUNTANTS

A MEMBER FIRM OF  
COOPERS & LYBRAND (INTERNATIONAL)

To the Board of Directors of  
Tennessee Valley Authority:

We have examined the financial statements of TENNESSEE VALLEY AUTHORITY at September 30, 1979 and 1978 and for the years then ended which are indexed on page 1 herein. Our examinations were 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, Exhibits I, II, III, and IV present fairly:

- (1) the financial position of the Authority at September 30, 1979 and 1978, and the results of operations and changes in financial position of its several programs for the years then ended; and
- (2) the financial position of the power program of the Authority at September 30, 1979 and 1978, 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 consistently applied during the period except for the change, with which we concur, in the method of determining the allowance for funds used during construction as described in Note 2 to the financial statements.

The supplemental information appearing in Schedules A to F, inclusive, which has been subjected to audit procedures applied in the examination of the basic financial statements, is in our opinion, fairly stated in all material respects in relation to the basic financial statements taken as a whole.



New York, November 21, 1979.



	Assets	Accumulated depreciation and depletion
Power		
Multipurpose dams		
System allocation; page 23	\$ 436,340,498	\$ 186,981,467
Project allocations; page 25	60,147,524	11,190,543
Single-purpose dams; page 27	346,051,924	33,232,976
Steam production plants; page 27	2,634,519,007	1,009,713,335
Nuclear production plants; page 28	888,350,467	108,484,283
Other electric plant; page 28	2,071,198,827	547,911,472
Total power	<u>6,436,608,247</u>	<u>1,897,514,076</u>
Navigation		
Multipurpose dams		
System allocation; page 23	229,545,402	61,273,054
Project allocations; page 25	60,823,882	7,228,513
Single-purpose navigation plant; page 29	7,096,629	936,186
Total navigation	<u>297,465,913</u>	<u>69,437,753</u>
Flood control		
Multipurpose dams		
System allocation; page 23	180,075,911	41,746,994
Project allocations; page 25	40,892,170	1,394,954
Single-purpose flood control plant; page 29	2,065,257	190,213
Total flood control	<u>223,033,338</u>	<u>43,332,161</u>
Recreation and environmental education		
Multipurpose dams		
Project allocations; page 25	67,396,625	1,976,787
Land Between The Lakes; page 29	60,424,002	5,048,965
Other recreation plant; page 29	3,139,404	399,129
Total recreation and environmental education	<u>130,960,031</u>	<u>7,424,881</u>
Tributary area development		
Multipurpose dams		
Project allocations; page 25	45,527,747	1,430,492
Chemical; page 29	68,666,200	25,124,082
General; page 29	56,911,964	27,163,851
Total	<u>\$7,259,173,440</u>	<u>\$2,071,427,296</u>
Total completed plant		
Multipurpose dams		
System allocation	\$ 845,961,811	\$ 290,001,515
Project allocations	274,787,948	23,221,289
Single-purpose dams	1,120,749,759	313,222,804
Steam production plants	346,051,924	33,232,976
Nuclear production plants	2,634,519,007	1,009,713,335
Nuclear production plants	888,350,467	108,484,283
Other electric plant	2,071,198,827	547,911,472
Other plant	198,303,456	58,862,426
Total	<u>\$7,259,173,440</u>	<u>\$2,071,427,296</u>

TENNESSEE VALLEY AUTHORITY  
MULTIPURPOSE DAMS  
SYSTEM ALLOCATION  
SEPTEMBER 30, 1979

Multiple-use facilities

Reservoir land and landrights  
Highway, railroad, and other relocations and removals  
Reservoir clearing  
Dam structure, excluding power intake section  
Roadways  
Village and reservoir facilities  
Other structures and improvements  
Total  
Deduct direct flood control investment, contra below  
Add nonoverflow sections to replace other sections,  
contra below  
Power intake section  
Lock section  
Total multiple-use facilities allocated below;  
note 1, page 10

Navigation facilities

Lock and appurtenances  
Channel improvements  
Deduct nonoverflow section to replace lock section,  
contra above  
Total before allocation of multiple-use facilities  
Add allocation of total multiple-use facilities shown  
above; note 1, page 10

Total navigation facilities after allocation

Flood control facilities

Reservoir land and landrights  
Add direct flood control investment, contra above  
Total before allocation of multiple-use facilities  
Add allocation of total multiple-use facilities shown  
above; note 1, page 10

Total flood control facilities after allocation

Power facilities

Powerhouse, including intake section  
Turbines and generators  
Accessory electric equipment  
Other power plant equipment  
Total  
Deduct nonoverflow section to replace power intake  
section; contra above  
Total before allocation of multiple-use facilities  
Add allocation of total multiple-use facilities shown  
above; note 1, page 10

Total power facilities after allocation

Total

Accumulated depreciation

Assets

Kentucky	Pickwick	Wilson	Wheeler
\$ 14,841,845	\$ 3,000,536	\$ 684,427	\$ 4,333,245
27,434,261	1,915,648	136,355	2,113,711
6,915,483	1,509,836	951,436	3,613,759
27,555,500	6,006,369	12,600,298	8,384,889
276,832	33,933	2,116,796	901,410
1,968,195	193,824	184,130	1,323,824
1,616,232	683,012	1,015,559	447,007
80,608,348	13,343,158	17,689,001	21,117,845
16,532,000	788,000	-	-
2,890,000	550,000	3,900,000	830,000
210,000	380,000	125,000	200,000
67,176,348	13,485,158	21,714,001	22,147,845
10,082,252	6,010,874	28,683,675	21,727,975
-	-	-	-
210,000	380,000	125,000	200,000
9,872,252	5,630,874	28,558,675	21,527,975
16,532,000	788,000	-	-
16,532,000	788,000	-	-
10,773,027	9,444,110	21,360,779	18,018,614
10,087,131	11,957,581	27,931,263	21,036,050
1,023,384	1,642,785	5,109,762	2,527,691
963,367	421,187	2,009,920	465,883
22,846,909	23,465,663	56,411,724	42,048,238
2,890,000	550,000	3,900,000	830,000
19,956,909	22,915,663	52,511,724	41,218,238
\$113,537,509	\$42,819,695	\$102,784,400	\$84,894,058
\$ 30,514,013	\$21,242,574	\$ 44,856,810	\$29,773,224

<u>Guntersville</u>	<u>Chickamauga</u>	<u>Watts Bar</u>	<u>Fort Loudoun</u>
\$ 3,711,612	\$ 4,490,643	\$ 5,012,990	\$ 4,123,106
3,867,303	2,704,136	4,977,205	5,111,630
2,436,598	971,651	953,785	560,341
5,146,272	8,242,856	3,963,969	8,816,480
366,029	165,767	70,280	259,733
1,071,413	332,718	188,159	108,953
809,194	985,103	976,126	765,560
<u>17,408,421</u>	<u>17,892,874</u>	<u>16,142,514</u>	<u>19,745,803</u>
-	1,107,000	1,952,000	786,000
780,000	1,470,000	614,000	1,610,000
<u>440,000</u>	<u>790,000</u>	<u>565,000</u>	<u>940,000</u>
<u>18,628,421</u>	<u>19,045,874</u>	<u>15,369,514</u>	<u>21,509,803</u>
17,518,721	4,735,831	3,161,200	5,709,247
-	-	-	-
440,000	790,000	565,000	940,000
<u>17,078,721</u>	<u>3,945,831</u>	<u>2,596,200</u>	<u>4,769,247</u>
-	-	-	-
-	1,107,000	1,952,000	786,000
-	<u>1,107,000</u>	<u>1,952,000</u>	<u>786,000</u>
5,639,163	6,297,853	4,961,629	6,266,978
7,633,141	7,614,505	7,934,088	6,761,863
750,455	1,498,998	1,065,470	1,110,574
293,516	412,168	505,296	563,707
<u>14,316,275</u>	<u>15,823,524</u>	<u>14,466,483</u>	<u>14,703,122</u>
780,000	1,470,000	614,000	1,610,000
<u>13,536,275</u>	<u>14,353,524</u>	<u>13,852,483</u>	<u>13,093,122</u>
<u>\$49,243,417</u>	<u>\$38,452,229</u>	<u>\$33,770,197</u>	<u>\$40,158,172</u>
<u>\$15,387,567</u>	<u>\$15,682,198</u>	<u>\$13,402,786</u>	<u>\$14,808,093</u>

<u>Norris</u>	<u>Hiwassee</u>	<u>Cherokee</u>	<u>Chatuge</u>
\$ 6,800,700	\$ 1,678,482	\$ 4,498,971	\$ 964,833
4,308,463	1,191,433	5,519,525	2,693,192
1,561,458	394,601	575,359	194,329
10,847,235	9,376,953	13,205,027	3,088,682
266,691	246,236	31,728	38,234
86,395	151,406	172,098	2,499
538,530	245,428	928,050	197,081
24,409,472	13,284,539	24,930,758	7,178,850
5,506,000	1,356,000	3,467,000	537,000

-	-	-	-
-	-	-	-
<u>18,903,472</u>	<u>11,928,539</u>	<u>21,463,758</u>	<u>6,641,850</u>

-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

1,318,284	-	-	-
5,506,000	1,356,000	3,467,000	537,000
<u>6,824,284</u>	<u>1,356,000</u>	<u>3,467,000</u>	<u>537,000</u>

2,221,666	2,574,106	3,177,346	511,634
2,122,440	5,316,089	5,845,681	1,020,530
486,468	670,393	673,569	176,293
246,452	434,703	500,287	135,546
5,077,026	8,995,291	10,196,883	1,844,003
-	-	-	-
<u>5,077,026</u>	<u>8,995,291</u>	<u>10,196,883</u>	<u>1,844,003</u>

<u>\$30,804,782</u>	<u>\$22,279,830</u>	<u>\$35,127,641</u>	<u>\$9,022,853</u>
<u>\$ 9,678,506</u>	<u>\$ 9,555,612</u>	<u>\$11,274,290</u>	<u>\$2,293,413</u>

Assets

Nottely	Fontana	South Holston	Watauga	Douglas	Boone	Channel improvements	Total system allocation dams	Accumulated depreciation
\$ 413,407	\$ 1,625,350	\$ 2,424,639	\$ 4,598,632	\$ 6,787,030	\$ 2,118,605	\$ -	\$ 72,109,053	\$ -
1,344,854	9,017,018	3,745,948	6,369,316	8,107,311	2,724,632	-	93,281,941	-
232,107	1,033,436	892,864	385,808	574,900	575,423	-	24,333,174	-
3,205,913	45,779,373	17,411,137	10,757,436	16,912,546	6,585,430	-	217,886,365	88,140,107
197,851	606,244	211,319	341,593	82,469	24,164	-	6,237,309	2,952,527
2,822	51,497	50,413	120,852	114,133	74,116	-	6,197,447	2,841,262
95,765	3,266,985	896,095	889,440	997,192	389,375	-	15,741,734	8,058,799
5,492,719	61,379,903	25,632,415	23,463,077	33,575,581	12,491,745	-	435,787,023	101,992,695
623,000	7,623,000	4,950,000	3,045,000	7,057,000	110,000	-	55,439,000	11,399,333
-	-	-	-	-	1,160,000	-	13,804,000	5,833,951
-	-	-	-	-	-	-	3,650,000	1,468,369
4,869,719	53,756,903	20,682,415	20,418,077	26,518,581	13,541,745	-	\$397,802,023	\$ 97,895,682
-	-	-	-	-	-	-	\$ 97,629,775	\$ 30,339,248
-	-	-	-	-	-	28,159,081	28,159,081	5,970,341
-	-	-	-	-	-	-	3,650,000	1,468,369
-	-	-	-	-	-	28,159,081	122,138,856	34,841,220
-	-	-	-	-	-	-	107,406,546	26,431,834
-	-	-	-	-	-	-	229,545,402	61,273,054
-	-	-	-	-	-	-	1,318,284	-
623,000	7,623,000	4,950,000	3,045,000	7,057,000	110,000	-	55,439,000	11,399,333
623,000	7,623,000	4,950,000	3,045,000	7,057,000	110,000	-	56,757,284	11,399,333
-	-	-	-	-	-	-	123,318,627	30,347,661
-	-	-	-	-	-	-	180,075,911	41,746,994
607,075	5,672,728	2,779,412	4,922,424	4,734,010	4,742,967	-	114,705,521	45,893,994
1,233,030	6,704,930	1,791,814	2,370,493	5,887,166	4,961,615	-	138,209,410	82,696,125
185,800	1,141,937	369,336	764,185	689,623	907,486	-	20,794,209	16,900,826
131,513	537,454	259,427	374,036	511,224	592,822	-	9,358,508	6,208,286
2,157,418	14,057,049	5,199,989	8,431,138	11,822,023	11,204,890	-	283,067,648	151,699,231
-	-	-	-	-	1,160,000	-	13,804,000	5,833,951
2,157,418	14,057,049	5,199,989	8,431,138	11,822,023	10,044,890	-	269,263,648	145,865,280
-	-	-	-	-	-	-	167,076,850	41,116,187
-	-	-	-	-	-	-	436,340,498	186,981,467
\$7,650,137	\$75,436,952	\$30,832,404	\$31,894,215	\$45,397,604	\$23,696,635	\$28,159,081	\$845,961,811	
\$2,419,745	\$25,442,595	\$ 8,418,799	\$ 8,156,451	\$13,460,001	\$ 7,664,497	\$ 5,970,341		\$290,001,515

# TENNESSEE VALLEY AUTHORITY

## MULTIPURPOSE DAMS

### PROJECT ALLOCATIONS

SEPTEMBER 30, 1979

	<u>Melton Hill</u>	<u>Nickajack</u>
Multiple-use facilities		
Reservoir land and landrights; note a	\$ 3,407,626	\$ 3,285,422
Highway, railroad, and other relocations and removals	2,667,366	9,106,970
Reservoir clearing	904,168	736,361
Dam structure, excluding power intake section	2,825,723	9,998,808
Roadways	419,618	499,660
Village and reservoir facilities	144,882	361,837
Other structures and improvements	1,189,957	1,075,966
Total	11,559,340	25,065,024
Deduct direct power investment, contra below; note b	2,138,725	-
Add nonoverflow sections to replace other sections, contra below		
Power intake section	1,120,000	700,000
Lock section	480,000	950,000
Add sluiceway to replace power intake and water conductor, contra below	-	-
Total multiple-use facilities, allocated below; note 1, page 10	<u>\$11,020,615</u>	<u>\$26,715,024</u>
Navigation facilities		
Lock and appurtenances	\$ 9,315,484	\$21,361,960
Channel improvements	-	-
Deduct nonoverflow section to replace lock section, contra above	480,000	950,000
Total before allocation of multiple-use facilities	8,835,484	20,411,960
Add allocation of total multiple-use facilities shown above; note 1, page 10	7,163,400	22,711,319
Total navigation facilities after allocation	<u>15,998,884</u>	<u>43,123,279</u>
Flood control facilities		
Reservoir land and landrights	-	-
Structures and improvements	-	-
Dam structures and waterways	-	-
Reservoir facilities	-	-
Channel improvements	-	-
Total before allocation of multiple-use facilities	-	-
Add allocation of total multiple-use facilities shown above; note 1, page 10	-	405,492
Total flood control facilities after allocation	-	<u>405,492</u>
Tributary area development facilities		
Intake for municipal water supply	-	-
Add allocation of total multiple-use facilities shown above; note 1, page 10	-	-
Less reimbursement by Beech River Watershed Development Authority	-	-
Total tributary area development facilities after allocation and reimbursements	-	-
Recreation facilities		
Public-use areas	-	-
Add allocation of total multiple-use facilities shown above; note 1, page 10	-	-
Total recreation facilities after allocation	-	-
Power facilities		
Land and landrights	-	-
Powerhouse, including intake section	6,275,274	11,978,693
Turbines and generators	6,715,326	12,817,217
Accessory electrical equipment	753,983	1,300,569
Other power plant equipment	560,281	768,664
Total	14,304,864	26,865,143
Add direct power investment, contra above; note b	2,138,725	-
Deduct nonoverflow section to replace power intake section, contra above	1,120,000	700,000
Deduct sluiceway to replace power intake and water conductor, contra above	-	-
Total before allocation of multiple-use facilities	15,323,589	26,165,143
Add allocation of total multiple-use facilities shown above; note 1, page 10	3,857,215	3,598,214
Total power facilities after allocation	<u>19,180,804</u>	<u>29,763,357</u>
Total	<u>\$35,179,688</u>	<u>\$73,292,128</u>
Accumulated depreciation	<u>\$ 6,350,507</u>	<u>\$10,406,525</u>

#### Notes:

- Nickajack includes land and landrights in the amount of \$1,308,037 acquired for retired Hales Bar project which is allocated on system basis.
- Estimated investment for increased reservoir elevation to serve a single purpose.



## Assets

Tims Ford	Bear Creek	Duck River	Beech River	Channel improvements	Total project allocations dams	Accumulated depreciation
\$ 8,131,142	\$12,490,463	\$ 5,561,380	\$2,089,256	\$ -	\$ 34,965,289	\$ -
12,363,625	7,393,196	11,140,706	222,931	-	42,894,794	-
3,057,250	4,492,770	512,541	953,369	-	10,656,459	-
14,167,953	35,503,223	18,519,264	2,943,715	-	83,958,686	5,136,567
352,345	1,687,095	-	80,600	-	3,039,318	309,800
83,127	1,091,005	468,442	221,958	-	2,371,251	386,245
1,192,083	804,571	171,103	66,595	-	4,500,275	696,929
39,347,525	63,462,323	36,373,436	6,578,424	-	182,386,072	6,529,541
-	-	-	-	-	2,138,725	153,734
-	-	-	-	-	1,820,000	251,882
-	-	-	-	-	1,430,000	183,242
4,273,000	-	-	-	-	4,273,000	405,799
<u>\$43,620,525</u>	<u>\$63,462,323</u>	<u>\$36,373,436</u>	<u>\$6,578,424</u>	<u>\$ -</u>	<u>\$187,770,347</u>	<u>\$ 7,216,730</u>
\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,677,444	\$ 4,690,751
-	-	-	-	1,701,719	1,701,719	419,990
-	-	-	-	-	1,430,000	183,242
-	-	-	-	1,701,719	30,949,163	4,927,499
-	-	-	-	-	29,874,719	2,301,014
-	-	-	-	1,701,719	60,823,882	7,228,513
-	-	-	386,655	-	386,655	-
-	-	-	10,022	-	10,022	3,245
-	-	-	114,479	-	114,479	16,434
-	-	-	1,839	-	1,839	262
-	1,937,758	-	2,386,478	-	4,324,236	420,461
-	1,937,758	-	2,899,473	-	4,837,231	440,402
6,979,284	24,115,683	2,909,875	1,644,605	-	36,054,939	954,552
6,979,284	26,053,441	2,909,875	4,544,078	-	40,892,170	1,394,954
-	-	-	19,444	-	19,444	2,770
9,596,515	8,250,102	22,915,265	4,933,818	-	45,695,700	1,427,722
-	-	-	187,397	-	187,397	-
9,596,515	8,250,102	22,915,265	4,765,865	-	45,527,747	1,430,492
272,755	-	1,051,541	-	-	1,324,296	135,528
24,427,494	31,096,538	10,548,297	-	-	66,072,329	1,841,259
24,700,249	31,096,538	11,599,838	-	-	67,396,625	1,976,787
607,860	-	-	-	-	607,860	-
7,247,407	-	-	-	-	25,501,374	3,543,564
3,477,696	-	-	-	-	23,010,239	6,110,856
784,716	-	-	-	-	2,839,268	848,622
741,453	-	-	-	-	2,070,398	499,265
12,859,132	-	-	-	-	54,029,139	11,002,307
-	-	-	-	-	2,138,725	153,734
-	-	-	-	-	1,820,000	251,882
4,273,000	-	-	-	-	4,273,000	405,799
8,586,132	-	-	-	-	50,074,864	10,498,360
2,617,231	-	-	-	-	10,072,660	692,183
11,203,363	-	-	-	-	60,147,524	11,190,543
<u>\$52,479,411</u>	<u>\$65,400,081</u>	<u>\$37,424,978</u>	<u>\$9,309,943</u>	<u>\$1,701,719</u>	<u>\$274,787,948</u>	
<u>\$ 2,945,495</u>	<u>\$ 1,358,398</u>	<u>\$ 881,412</u>	<u>\$ 858,962</u>	<u>\$ 419,990</u>		<u>\$23,221,289</u>

TENNESSEE VALLEY AUTHORITY  
SINGLE-PURPOSE POWER DAMS AND STEAM PRODUCTION PLANTS  
SEPTEMBER 30, 1979

	<u>Raccoon Mountain</u>	<u>Apalachia</u>	<u>Fort Patrick Henry</u>	<u>Great Falls</u>	<u>Ocoee No. 3</u>
Single-purpose power dams					
Assets					
Reservoir land and landrights, including relocations	\$ 2,006,374	\$ 775,306	\$ 1,207,743	\$ 702,114	\$ 237,226
Reservoir clearing	2,225,080	72,152	126,855	216,056	28,702
Structures and improvements	63,740,793	1,310,940	1,885,563	322,627	674,043
Dams and waterways	119,093,988	17,149,031	4,565,200	2,386,338	5,591,966
Turbines and generators	59,117,113	2,400,395	2,979,116	740,446	969,195
Accessory electric equipment	18,357,079	509,779	542,014	391,502	233,558
Other power plant equipment	4,310,825	292,040	267,360	139,374	177,836
Roads, railroads, and bridges	4,193,051	371,809	20,462	22,431	377,029
Village and reservoir facilities	48,318	6,430	17,043	5,877,571	-
Total single-purpose power dams	<u>\$273,092,621</u>	<u>\$ 22,887,882</u>	<u>\$ 11,611,356</u>	<u>\$ 10,798,459</u>	<u>\$ 8,289,555</u>
Accumulated depreciation	<u>\$ 3,690,952</u>	<u>\$ 9,820,471</u>	<u>\$ 4,316,398</u>	<u>\$ 3,681,846</u>	<u>\$ 3,723,117</u>

	<u>Cumberland</u>	<u>Paradise</u>	<u>Widows Creek</u>	<u>Shawnee</u>	<u>Kingston</u>
Steam production plants					
Assets					
Land and landrights	\$ 2,082,196	\$ 716,336	\$ 195,354	\$ 504,507	\$ 1,415,450
Structures and improvements	80,199,273	59,408,428	44,338,641	48,532,347	37,104,870
Boiler plant equipment	265,958,746	201,612,789	193,630,644	124,279,497	155,951,173
Turbogenerators	64,776,395	94,234,236	68,816,189	65,038,002	64,851,670
Accessory electric equipment	25,493,825	18,715,589	23,404,032	14,101,792	15,041,394
Other power plant equipment	7,640,356	6,061,096	5,720,954	4,059,496	4,977,732
Total steam production plants	<u>\$446,150,791</u>	<u>\$380,748,474</u>	<u>\$336,105,814</u>	<u>\$256,515,641</u>	<u>\$279,342,289</u>
Accumulated depreciation	<u>\$ 72,441,085</u>	<u>\$120,962,416</u>	<u>\$129,726,400</u>	<u>\$144,825,917</u>	<u>\$129,080,604</u>

<u>Ocoee No. 2</u>	<u>Blue Ridge</u>	<u>Ocoee No. 1</u>	<u>Wilbur</u>	<u>Total</u>
\$ 20,252	\$ 877,086	\$ 232,659	\$ 33,717	\$ 6,092,477
-	125,636	29,686	2,610	2,826,777
201,595	259,337	243,337	401,997	69,040,232
1,811,606	3,069,257	7,991,181	961,666	162,620,233
424,726	511,980	309,145	683,523	68,135,639
158,266	207,064	198,681	163,810	20,761,753
101,090	61,263	97,001	82,501	5,529,290
13,387	46,894	6,550	1,912	5,053,525
-	32,526	10,110	-	5,991,998
<u>\$ 2,730,922</u>	<u>\$ 5,191,043</u>	<u>\$ 9,118,350</u>	<u>\$ 2,331,736</u>	<u>\$ 346,051,924</u>
<u>\$ 2,625,247</u>	<u>\$ 2,628,180</u>	<u>\$ 1,539,600</u>	<u>\$ 1,207,165</u>	<u>\$ 33,232,976</u>

<u>Johnsonville</u>	<u>Colbert</u>	<u>Gallatin</u>	<u>Bull Run</u>	<u>John Sevier</u>	<u>Watts Bar</u>	<u>Thomas H. Allen (note 3, page 11)</u>	<u>Total</u>
\$ 108,467	\$ 279,029	\$ 690,832	\$ 2,082,768	\$ 1,491,572	\$ 11,996	\$ -	\$ 9,578,507
38,338,589	30,288,780	26,863,106	27,834,662	22,549,459	4,090,947	3,178,540	422,727,642
91,620,834	93,423,271	103,944,397	108,878,658	55,281,781	10,593,488	16,549,552	1,421,724,830
57,665,623	45,498,592	46,890,254	26,288,298	30,477,357	6,274,222	11,127,076	581,937,914
12,568,354	10,795,687	9,337,026	9,738,149	7,062,280	1,665,317	966,451	148,889,896
4,391,063	4,078,770	3,448,068	3,570,437	2,937,365	789,035	1,985,846	49,660,218
<u>\$204,692,930</u>	<u>\$184,364,129</u>	<u>\$191,173,683</u>	<u>\$178,392,972</u>	<u>\$119,799,814</u>	<u>\$23,425,005</u>	<u>\$33,807,465</u>	<u>\$2,634,519,007</u>
<u>\$110,744,754</u>	<u>\$ 88,615,223</u>	<u>\$ 74,211,951</u>	<u>\$ 46,786,235</u>	<u>\$ 65,280,238</u>	<u>\$19,647,664</u>	<u>\$ 7,390,848</u>	<u>\$1,009,713,335</u>

TENNESSEE VALLEY AUTHORITY  
NUCLEAR PRODUCTION AND OTHER ELECTRIC PLANT  
SEPTEMBER 30, 1979

SCHEDULE A  
PAGE 6

	Assets	Accumulated depreciation and depletion
Nuclear production plants		
Browns Ferry		
Land and landrights	\$ 887,951	
Structures and improvements	188,622,774	
Reactor plant equipment	315,787,321	
Turbogenerators	261,795,012	
Accessory electric equipment	104,172,425	
Other power plant equipment	17,084,984	
Total nuclear production plants	<u>\$ 888,350,467</u>	<u>\$108,484,283</u>
Other electric plant		
Other production plant		
Gallatin gas turbines	\$ 30,511,008	
Thomas H. Allen gas turbines	51,637,862	
Colbert gas turbines	41,097,771	
Johnsonville gas turbines	86,604,993	
	209,851,634	\$ 41,252,649
System control center	29,283,846	3,155,814
Total other production plant	<u>239,135,480</u>	<u>44,408,463</u>
Transmission plant, including substations serving wholesale and industrial customers		
Land and landrights	69,349,183	
Structures and improvements	148,633,291	
Station equipment	636,481,547	
Towers and fixtures	237,929,822	
Poles and fixtures	70,156,717	
Overhead conductors and devices	308,879,758	
Roads and trails	262,829	
Total transmission plant	<u>1,471,693,147</u>	<u>416,417,595</u>
General plant		
Communication equipment	40,497,576	14,091,727
Coal land and landrights and mining equipment	27,018,453	5,435,356
Uranium land and landrights	8,476,552	391,422
Office and transportation equipment	59,883,553	15,621,780
Other, including land and landrights of \$704,382	42,898,935	10,543,938
Total general plant	<u>178,775,069</u>	<u>46,084,223</u>
Plant leased to others, including land and landrights of \$2,325,093	<u>91,763,435</u>	<u>33,391,132</u>
Plant held for future use		
Uranium land and landrights	74,573,435	
Coal land and landrights	764,087	
Other, including land and landrights of \$4,880,840	10,731,820	
Total plant held for future use	<u>86,069,342</u>	<u>4,986,847</u>
Other physical property, including land and landrights of \$1,139,142	<u>3,762,354</u>	<u>2,623,212</u>
Total other electric plant	<u>\$2,071,198,827</u>	<u>\$547,911,472</u>

	<u>Assets</u>	<u>Accumulated depreciation and depletion</u>
Single-purpose flood control plant, including land of \$726,828	\$ 2,065,257	\$ 190,213
..Single-purpose navigation plant	7,096,629	936,186
..Recreation and environmental education plant		
Land Between The Lakes plant, including land of \$33,910,067	60,424,002	5,048,965
Other recreation plant, including land of \$173,719	3,139,404	399,129
Total recreation and environmental education plant	63,563,406	5,448,094
Chemical plant		
Land		
Phosphate land and mineral rights	1,531,858	
Other land and landrights	2,122	
Total land	1,533,980	196,379
Buildings and equipment		
Manufacturing plant and equipment		
Phosphate facilities	-	
Nitrogen facilities	41,401,870	
	41,401,870	12,118,925
General service facilities		
Utility systems	15,624,685	
Other general facilities	10,105,665	
	25,730,350	12,808,778
Total buildings and equipment	67,132,220	24,927,703
Total chemical plant	68,666,200	25,124,082
General plant		
Land and landrights	865,650	
Land improvements	1,607,919	
.. Structures	20,149,188	
General utility systems	1,465,307	
Data processing equipment	848,851	
.. Engineering equipment	666,840	
Photographic and reproduction equipment	1,436,456	
Medical equipment	1,544,318	
Office furniture and equipment	4,361,138	
Transportation equipment	17,378,406	
Alterations to leased plant	589,041	
Environmental quality equipment	1,824,285	
Miscellaneous equipment	4,174,565	
Total general plant	56,911,964	27,163,851
Total other plant	\$198,303,456	\$58,862,426

TENNESSEE VALLEY AUTHORITY  
CONSTRUCTION AND INVESTIGATIONS IN PROGRESS,  
NUCLEAR FUEL, AND MINE AND MILL DEVELOPMENT COSTS  
SEPTEMBER 30, 1979

I. SCHEDULE B

	Power program	All programs
CONSTRUCTION AND INVESTIGATIONS IN PROGRESS		
Construction in progress		
Generating facilities		
Sequoyah Nuclear Plant	\$1,241,111,834	\$1,241,111,834
Watts Bar Nuclear Plant	1,121,103,068	1,121,103,068
Bellefonte Nuclear Plant	1,115,013,961	1,115,013,961
Hartsville Nuclear Plant	1,111,107,932	1,111,107,932
Phipps Bend Nuclear Plant	344,760,192	344,760,192
Yellow Creek Nuclear Plant	345,330,941	345,330,941
Raccoon Mountain pumped storage project	2,484,566	2,484,566
Total generating facilities	5,280,912,494	5,280,912,494
Transmission lines, substations, and other additions to power facilities	536,106,620	536,106,620
Pickwick new lock		22,470,095
Other navigation facilities		9,214,631
Flood control facilities		9,285*
Multipurpose facilities		
Tellico Dam and Reservoir	-	115,826,201
Columbia Dam and Reservoir	-	47,948,128
Bear Creek water control system	-	437,090
Other	725,019	1,872,507
Total multipurpose facilities	725,019	166,083,926
Chemical plant		3,113,368
Recreation and environmental education facilities		
Land Between The Lakes		6,207,036
Other recreation facilities		1,753,851
Total recreation and environmental education facilities		7,960,887
General plant		
General construction equipment and materials		1,762,083
Other additions to general plant	3,325,314	24,827,441
Total general plant	3,325,314	26,589,524
Total construction in progress	5,821,069,447	6,052,442,260
Investigations for future power facilities	11,298,241	11,298,241
Total construction and investigations in progress	\$5,832,367,688	\$6,063,740,501
NUCLEAR FUEL		
Nuclear fuel in process		
Browns Ferry	\$ 43,676,634	\$ 43,676,634
Sequoyah	47,906,277	47,906,277
Watts Bar	48,844,290	48,844,290
Bellefonte	112,871,057	112,871,057
Enrichment	47,240,690	47,240,690
Total nuclear fuel in process	300,538,948	300,538,948
Nuclear fuel in stock	112,118,765	112,118,765
Nuclear fuel in reactor		
Browns Ferry	174,569,513	174,569,513
Spent nuclear fuel in cooling		
Browns Ferry	43,874,885	43,874,885
Total nuclear fuel	\$ 631,102,111	\$ 631,102,111
ACCUMULATED AMORTIZATION AND ALLOWANCE		
Accumulated amortization--Browns Ferry	\$ 140,525,535	\$ 140,525,535
Allowance for disposal of spent nuclear fuel	42,507,503	42,507,503
Total accumulated amortization and allowance	\$ 183,033,038	\$ 183,033,038
MINE AND MILL DEVELOPMENT COSTS		
Coal mine development and leases	\$ 52,028,660	\$ 52,028,660
Uranium mine and mill development and preoperations	144,086,025	144,086,025
Total mine and mill development costs	\$ 196,114,685	\$ 196,114,685

\*Deduct

**TENNESSEE VALLEY AUTHORITY**  
**DETAILS OF POWER EXPENSE**  
**FOR THE YEAR ENDED SEPTEMBER 30, 1979**

**SCHEDULE C**  
**PAGE 1**

SUMMARY	Total	Provision for depreciation	Total before depreciation (exhibit II)	Operation			
				Fuel	Other	Maintenance	Other
Production							
Multipurpose dams							
Direct; page 32	\$ 14,449,263	\$ 5,502,532	\$ 8,946,731	\$ -	\$ 4,865,538	\$ 4,081,193	\$ -
Multiple-use; schedule E	5,551,190	1,247,296	4,303,894	-	3,415,379	888,515	-
Single-purpose dams and pumped storage; page 34	7,144,671	4,788,441	2,356,230	-	1,561,419	794,811	-
Cumberland Basin projects; note a	15,901,803	-	15,901,803	-	-	-	15,901,803
Steam plants; page 36	1,367,026,283	72,637,980	1,294,388,303	1,041,116,668	66,297,059	186,974,576	-
Nuclear plants; page 38	132,732,513	29,164,868	103,567,645	47,978,968	25,524,816	30,063,861	-
Gas turbine plants; page 38	31,322,322	8,394,075	22,928,247	19,578,115	558,253	2,791,879	-
Total generation	<u>1,574,128,045</u>	<u>121,735,192</u>	<u>1,452,392,853</u>	<u>1,108,673,751</u>	<u>102,222,464</u>	<u>225,594,835</u>	<u>15,901,803</u>
Purchased power	2,062,134	-	2,062,134	-	-	-	2,062,134
Interchange power received	122,460,963	-	122,460,963	-	-	-	122,460,963
Interchange power delivered	<u>58,622,438*</u>	-	<u>58,622,438*</u>	-	-	-	<u>58,622,438*</u>
Power purchased and interchanged, net	65,900,659	-	65,900,659	-	-	-	65,900,659
System control and load dispatching	3,284,709	964,942	2,319,767	-	-	-	2,319,767
Other	73,392,474	-	73,392,474	-	-	-	73,392,474
Total production	<u>1,716,705,887</u>	<u>122,700,134</u>	<u>1,594,005,753</u>	<u>1,108,673,751</u>	<u>102,222,464</u>	<u>225,594,835</u>	<u>157,514,703</u>
Transmission; page 38	66,718,273	34,843,603	31,874,670	-	17,306,236	14,568,434	-
Customer accounts; page 39	766,939	-	766,939	-	766,939	-	-
Demonstration of power use; page 39	12,114,281	-	12,114,281	-	12,114,281	-	-
Payments in lieu of taxes; note b	100,023,956	-	100,023,956	-	-	-	100,023,956
Social security taxes	14,633,509	-	14,633,509	-	-	-	14,633,509
Administrative and general; page 39							
Direct	96,548,771	3,028,951	93,519,820	-	93,195,018	324,802	-
Multiple-use	36,550	-	36,550	-	36,550	-	-
Total operating expense	<u>\$2,007,548,166</u>	<u>\$160,572,688</u>	<u>\$1,846,975,478</u>	<u>\$1,108,673,751</u>	<u>\$225,641,488</u>	<u>\$240,488,071</u>	<u>\$272,172,168</u>

SYSTEM STATISTICS	kWh generated less station use (thousands)	Production expense including depreciation		Installed capacity at September 30, 1979 (kilowatts)	Ratio of average gross generation to installed capacity (percent)
		Total	Per kWh (mills)		
Generation					
Multipurpose dams					
Direct; page 32	14,517,705	\$ 14,449,263	.995	3,040,150	54.83
Multiple-use; schedule E	-	5,551,190	.382	-	-
Total multipurpose dams	<u>14,517,705</u>	<u>20,000,453</u>	<u>1.377</u>	<u>3,040,150</u>	<u>54.83</u>
Single-purpose dams and pumped storage; page 34	986,791	7,144,671	7.240	1,779,160	22.93
Cumberland Basin projects; note a	3,376,133	15,901,803	4.710	853,000	45.48
Alcoa dams; note c	<u>2,243,328</u>			<u>423,715</u>	<u>60.56</u>
Total hydro generation	<u>21,123,957</u>			<u>6,096,025</u>	<u>47.57</u>
Steam plants; page 36	78,080,953	1,367,026,283	17.508	17,796,085	53.21
Nuclear plants; page 38	19,771,019	132,732,513	6.713	3,456,000	67.13
Gas turbine plants; page 38	<u>545,695</u>	<u>31,322,322</u>	<u>57.399</u>	<u>2,510,000</u>	<u>2.55</u>
Total commercial generation; note d	<u>119,521,624</u>			<u>29,858,110</u>	<u>49.46</u>
Purchased power	86,888	2,062,134			
Interchange power received	12,779,018	122,460,963			
System control and load dispatching		3,284,709			
Other; note e	<u>47,095*</u>	<u>73,392,474</u>			
Total system input	<u>132,340,435</u>				
Delivered under Alcoa Agreement	1,856,234*				
Interchange power delivered	<u>9,720,590*</u>	<u>58,622,438*</u>			
Net energy supply	<u>120,763,611</u>	<u>1,716,705,887</u>	<u>14.215</u>		
Shop and internal uses	10,212*				
Transmission and transformation losses	<u>3,065,124*</u>				
Total kWh sales and production expense	<u>117,688,275</u>	<u>\$1,716,705,887</u>	<u>14.587</u>		

**Notes:**

- TVA purchases substantially all of the output of eight hydro plants in the Cumberland River Basin. In accordance with memorandums of understanding with the Corps of Engineers, Department of the Army, the Cumberland Basin projects are operated for optimum production of power in conjunction with TVA's power system, subject to flood control, navigation, and other operating requirements of the Army.
- Payments made to states and counties in which power operations are carried out. The basic amount is 5 percent of gross revenues from the sale of power to other than Federal agencies during the preceding year, with the provision of minimum payments under certain circumstances.
- Operation of twelve hydro plants of the Aluminum Company of America is coordinated with the operation of TVA's power plants under an arrangement whereby the storage and release of water from the Alcoa plants are carried out by the company under TVA's direction.
- Installed capacity increased 1,549,400 kilowatts during fiscal year 1979. Additions consisted of four 382,500 kilowatt generating units at the Raccoon Mountain Pumped Storage Plant and 19,400 kilowatts from modifications to five generators.
- "kWh generated" included kWh generated, less energy for pumping, during test runs of all four units at the Raccoon Mountain Pumped Storage Plant. The expenses of the generation, less credit for the fair value of energy delivered to the TVA power system, were charged to construction.

\*Deduct

**TENNESSEE VALLEY AUTHORITY**  
**DETAILS OF POWER EXPENSE**  
**FOR THE YEAR ENDED SEPTEMBER 30, 1979**

	<u>Total</u>	<u>Kentucky</u>	<u>Pickwick</u>	<u>Wilson</u>	<u>Wheeler</u>	<u>Gunters- ville</u>	<u>Nickajack</u>	<u>Chicka- mauga</u>
Direct hydraulic production - multipurpose dams								
Operation								
Supervision and engineering	\$ 433,824	\$ 34,718	\$ 30,618	\$ 62,985	\$ 51,064	\$ 35,277	\$ 17,893	\$ 24,000
Hydraulic	23,264	-	828	4,001	6,010	2,198	348	9,221
Electric	2,628,199	157,199	173,092	345,441	255,628	148,635	92,789	146,465
Miscellaneous	<u>1,780,251</u>	<u>118,080</u>	<u>130,524</u>	<u>290,589</u>	<u>177,660</u>	<u>103,578</u>	<u>47,975</u>	<u>114,176</u>
Total operation	<u>4,865,538</u>	<u>309,997</u>	<u>335,062</u>	<u>703,016</u>	<u>490,362</u>	<u>289,688</u>	<u>159,005</u>	<u>293,862</u>
Maintenance								
Supervision and engineering	376,052	34,539	37,092	45,286	30,855	29,756	16,561	20,417
Structures	356,485	32,263	15,544	52,830	34,863	21,334	7,227	13,379
Reservoirs, dams, and waterways	123,397	100	568	8,276	22,356	5,396	245	730
Electric plant	2,670,624	63,337	463,505	441,620	205,084	100,686	75,123	162,421
Miscellaneous plant	<u>554,635</u>	<u>128,650</u>	<u>66,405</u>	<u>99,555</u>	<u>44,984</u>	<u>13,691</u>	<u>10,003</u>	<u>39,563</u>
Total maintenance	<u>4,081,193</u>	<u>258,889</u>	<u>583,114</u>	<u>647,567</u>	<u>338,142</u>	<u>170,863</u>	<u>109,159</u>	<u>236,510</u>
Provision for depreciation	<u>5,502,532</u>	<u>337,291</u>	<u>394,929</u>	<u>922,494</u>	<u>689,850</u>	<u>233,263</u>	<u>436,486</u>	<u>256,224</u>
Total	<u>\$14,449,263</u>	<u>\$906,177</u>	<u>\$1,313,105</u>	<u>\$2,273,077</u>	<u>\$1,518,354</u>	<u>\$693,814</u>	<u>\$704,650</u>	<u>\$786,596</u>
kWh generated less station use (thousands)	14,517,705	1,081,740	1,354,248	2,887,551	1,539,620	748,201	712,067	842,290
Total production expense including depreciation per kWh (mills)	.995	.838	.970	.787	.986	.927	.990	.934
Installed capacity at September 30, 1979 (kilowatts); note d, page 31	3,040,150	175,000	220,040	629,840	359,100	115,200	100,350	117,000
Ratio of average gross generation to installed capacity (percent)	54.83	70.72	70.42	52.46	49.13	77.94	81.13	82.53



Watts Bar	Port Loudoun	Norris	Hiwassee	Cherokee	Chatuge	Nottely	Fontana	South Holston	Watauga	Douglas	Boone	Melton Hill	Tims Ford
\$ 19,386	\$ 11,199	\$ 33,177	\$ 26,231	\$ 17,249	\$ 5,025	\$ 5,028	\$ 11,917	\$ 9,043	\$ 8,404	\$ 14,016	\$ 6,744	\$ 6,305	\$ 3,545
658	-	-	-	-	-	-	-	-	-	-	-	-	-
197,901	122,766	114,644	69,849	134,789	21,466	20,241	85,695	57,036	129,381	118,504	116,694	62,499	57,485
90,081	124,402	48,317	78,345	107,033	15,295	13,504	70,795	29,048	78,394	52,659	35,032	39,466	15,298
308,026	258,367	196,138	174,425	259,071	41,786	38,773	168,407	95,127	216,179	185,179	158,470	108,270	76,328
25,377	21,977	18,354	5,603	14,458	3,385	2,527	16,172	5,815	11,957	11,967	10,001	10,655	3,298
48,632	19,579	5,148	6,264	41,591	3,660	2,894	12,699	2,003	5,812	16,451	5,288	3,794	5,230
13,400	4,826	11,302	5,747	11,127	3,104	1,071	13,915	1,838	7,997	9,392	1,372	316	319
199,074	184,778	364,863	33,525	121,748	24,083	9,297	32,686	26,325	61,252	34,971	26,021	12,682	27,543
25,211	17,683	5,464	12,824	10,670	3,962	8,470	11,329	5,913	19,347	16,929	7,755	3,562	2,665
311,694	248,843	405,131	63,963	199,594	38,194	24,259	86,801	41,894	106,365	89,710	50,437	31,009	39,055
249,612	238,206	88,973	164,374	185,000	33,065	38,923	248,189	87,936	133,160	203,586	179,377	237,401	144,193
\$869,332	\$745,416	\$690,242	\$402,762	\$643,665	\$113,045	\$101,955	\$503,397	\$224,957	\$455,704	\$478,475	\$388,284	\$376,680	\$259,576
1,049,736	653,079	547,654	328,677	370,836	36,173	40,605	1,083,639	142,636	162,891	461,508	196,149	209,065	69,340
.828	1.141	1.260	1.225	1.736	3.125	2.511	.465	1.577	2.798	1.037	1.980	1.802	3.744
166,500	139,140	100,800	117,100	135,180	10,000	15,000	238,500	35,000	53,800	120,600	75,000	72,000	45,000
73.58	53.73	62.17	32.19	31.44	41.52	31.09	51.95	46.71	34.98	43.82	30.04	33.29	17.75

TENNESSEE VALLEY AUTHORITY  
 DETAILS OF POWER EXPENSE  
 FOR THE YEAR ENDED SEPTEMBER 30, 1979

	<u>Total</u>	<u>Apalachia</u>	<u>Fort Patrick Henry</u>
Hydraulic production - single-purpose dams and pumped storage			
Operation			
Supervision and engineering	\$ 158,021	\$ 21,566	\$ 11,209
Hydraulic	37,497	1,123	5,422
Electric	863,086	64,159	54,615
Miscellaneous	<u>502,815</u>	<u>37,362</u>	<u>138,635</u>
Total operation	<u>1,561,419</u>	<u>124,210</u>	<u>209,881</u>
Maintenance			
Supervision and engineering	114,563	5,472	10,674
Structures	82,639	5,510	9,365
Reservoirs, dams, and waterways	303,488	2,541	81,802
Electric plant	223,199	19,280	69,957
Miscellaneous plant	<u>70,922</u>	<u>5,854</u>	<u>7,336</u>
Total maintenance	<u>794,811</u>	<u>38,657</u>	<u>179,134</u>
Provision for depreciation	<u>4,788,441</u>	<u>276,071</u>	<u>158,179</u>
Total	<u>\$7,144,671</u>	<u>\$438,938</u>	<u>\$547,194</u>
kWh generated less station use (thousands)	986,791	549,206	119,774
Total production expense including depreciation per kWh (mills)	7.240	.799	4.569
Installed capacity at September 30, 1979 (kilowatts); note d, page 31	1,779,160	82,800	36,000
Ratio of average gross generation to installed capacity (percent)	22.93	75.81	38.19

\*Deduct

<u>Great Falls</u>	<u>Ocoee No. 3</u>	<u>Ocoee No. 2</u>	<u>Blue Ridge</u>	<u>Ocoee No. 1</u>	<u>Wilbur</u>	<u>Raccoon Mountain</u>
\$ 25,861	\$ 15,566	\$ 10,300	\$ 4,594	\$ 24,014	\$ 6,018	\$ 38,893
16,563	4,934	998	253	5,711	2,493	-
213,779	40,264	80,524	27,982	209,213	24,809	147,741
<u>44,172</u>	<u>43,665</u>	<u>32,906</u>	<u>26,520</u>	<u>98,476</u>	<u>19,782</u>	<u>61,297</u>
<u>300,375</u>	<u>104,429</u>	<u>124,728</u>	<u>59,349</u>	<u>337,414</u>	<u>53,102</u>	<u>247,931</u>
34,952	12,549	18,038	7,739	11,265	8,675	5,199
3,658	7,567	29,327	2,467	15,769	4,788	4,188
3,216	44,777	106,828	3,329	7,317	53,195	483
17,095	14,799	4,134	17,302	27,174	25,913	27,545
<u>15,286</u>	<u>7,823</u>	<u>11,431</u>	<u>3,263</u>	<u>9,314</u>	<u>3,753</u>	<u>6,862</u>
<u>74,207</u>	<u>87,515</u>	<u>169,758</u>	<u>34,100</u>	<u>70,839</u>	<u>96,324</u>	<u>44,277</u>
<u>177,589</u>	<u>105,330</u>	<u>84,629</u>	<u>55,980</u>	<u>203,307</u>	<u>36,404</u>	<u>3,690,952</u>
<u>\$552,171</u>	<u>\$297,274</u>	<u>\$379,115</u>	<u>\$149,429</u>	<u>\$611,560</u>	<u>\$185,830</u>	<u>\$3,983,160</u>
175,832	197,296	344*	54,428	89,389	27,584	226,374*
3.140	1.507	-	2.745	6.842	6.737	17.595*
31,860	28,800	21,000	20,000	18,000	10,700	1,530,000
63.14	78.33	-	31.13	56.92	29.64	12.65

**TENNESSEE VALLEY AUTHORITY**  
**DETAILS OF POWER EXPENSE**  
**FOR THE YEAR ENDED SEPTEMBER 30, 1979**

	<u>Total</u>	<u>Cumberland</u>	<u>Paradise</u>	<u>Widows Creek</u>	<u>Shawnee</u>
Steam production					
Operation					
Supervision and engineering	\$ 6,929,244	\$ 829,141	\$ 648,471	\$ 971,918	\$ 725,906
Fuel	1,041,116,668	145,559,871	79,721,656	130,872,154	125,832,676
Steam	20,896,685	2,161,539	1,741,556	3,844,113	2,015,537
Electric	8,036,292	561,134	717,666	1,075,962	890,021
Miscellaneous	23,534,760	3,565,394	3,144,513	2,950,577	1,930,527
Rent	<u>6,900,078</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total operation	<u>1,107,413,727</u>	<u>152,677,079</u>	<u>85,973,862</u>	<u>139,714,724</u>	<u>131,394,667</u>
Maintenance					
Supervision and engineering	4,890,651	701,908	757,532	680,657	342,394
Structures	15,675,823	7,956,592	1,528,283	1,164,125	591,943
Boiler plant	131,474,518	22,734,531	16,769,783	18,627,474	8,265,314
Electric plant	26,688,270	2,568,990	3,161,393	4,284,630	2,480,976
Miscellaneous plant	<u>8,245,314</u>	<u>1,121,759</u>	<u>1,348,272</u>	<u>1,226,050</u>	<u>541,041</u>
Total maintenance	<u>186,974,576</u>	<u>35,083,780</u>	<u>23,565,263</u>	<u>25,982,936</u>	<u>12,221,668</u>
Provision for depreciation	<u>72,637,980</u>	<u>12,436,622</u>	<u>10,560,359</u>	<u>9,328,883</u>	<u>7,165,530</u>
Total	<u>\$1,367,026,283</u>	<u>\$200,197,481</u>	<u>\$120,099,484</u>	<u>\$175,026,543</u>	<u>\$150,781,865</u>
kWh generated less station use (thousands)	78,080,953	10,404,220	10,401,798	7,585,974	7,962,181
Total production expense including depreciation per kWh (mills)	17.508	19.242	11.546	23.072	18.937
Installed capacity at September 30, 1979 (kilowatts)	17,796,085	2,600,000	2,558,200	1,977,985	1,750,000
Ratio of average gross generation to installed capacity (percent)	53.21	47.52	48.65	46.50	55.73

<u>Kingston</u>	<u>Johnsonville</u>	<u>Colbert</u>	<u>Gallatin</u>	<u>Bull Run</u>	<u>John Sevier</u>	<u>Watts Bar</u>	<u>Thomas H. Allen (note 3, page 11)</u>
\$ 514,861	\$ 671,229	\$ 696,500	\$ 479,893	\$ 403,653	\$ 365,339	\$ 192,373	\$ 429,960
126,880,216	89,998,472	72,054,243	85,153,982	58,744,952	63,631,644	14,367,573	48,299,229
2,042,170	1,958,438	1,915,494	1,258,891	960,558	1,019,802	990,131	988,456
883,058	881,365	778,069	593,379	419,922	457,255	398,592	379,869
1,914,281	1,989,861	1,828,150	1,734,206	1,400,881	999,174	623,966	1,453,230
-	-	-	-	-	-	-	6,900,078
<u>132,234,586</u>	<u>95,499,365</u>	<u>77,272,456</u>	<u>89,220,351</u>	<u>61,929,966</u>	<u>66,473,214</u>	<u>16,572,635</u>	<u>58,450,822</u>
430,891	308,747	393,003	326,574	310,081	199,660	125,297	313,907
1,200,162	538,892	790,031	635,634	271,003	243,167	368,196	387,795
15,582,987	7,103,343	12,939,559	7,511,799	7,076,353	3,429,311	3,319,471	8,114,593
2,006,533	3,973,754	2,341,208	2,396,019	1,345,270	992,687	192,087	944,723
579,437	748,887	760,258	319,284	472,308	405,654	411,026	311,338
<u>19,800,010</u>	<u>12,673,623</u>	<u>17,224,059</u>	<u>11,189,310</u>	<u>9,475,015</u>	<u>5,270,479</u>	<u>4,416,077</u>	<u>10,072,356</u>
<u>7,662,010</u>	<u>5,650,216</u>	<u>5,182,034</u>	<u>5,070,636</u>	<u>4,824,402</u>	<u>3,248,566</u>	<u>651,874</u>	<u>856,848</u>
<u>\$159,696,606</u>	<u>\$113,823,204</u>	<u>\$99,678,549</u>	<u>\$105,480,297</u>	<u>\$76,229,383</u>	<u>\$74,992,259</u>	<u>\$21,640,586</u>	<u>\$69,380,026</u>
9,328,472	6,428,040	5,078,473	6,073,968	4,758,842	5,178,136	880,091	4,000,758
17.119	17.707	19.628	17.366	16.018	14.482	24.589	17.342
1,723,250	1,485,200	1,419,750	1,255,200	950,000	846,500	240,000	990,000
66.59	53.25	43.71	59.14	59.39	73.99	44.42	50.14

**TENNESSEE VALLEY AUTHORITY**  
**DETAILS OF POWER EXPENSE**  
**FOR THE YEAR ENDED SEPTEMBER 30, 1979**

**SCHEDULE C**  
**PAGE 5**

	<u>Allen</u>	<u>Colbert</u>	<u>Gallatin</u>	<u>Johnsonville</u>	<u>Total</u>
Gas turbine production					
Fuel expense	\$3,953,531	\$2,674,636	\$1,425,874	\$11,524,074	\$19,578,115
Other operating expense	99,465	243,739	74,681	140,368	558,253
	<u>4,052,996</u>	<u>2,918,375</u>	<u>1,500,555</u>	<u>11,664,442</u>	<u>20,136,368</u>
Maintenance	630,165	1,329,706	62,944*	894,952	2,791,879
Provision for depreciation	2,065,807	1,643,628	1,220,440	3,464,200	8,394,075
Total	<u>\$6,748,968</u>	<u>\$5,891,709</u>	<u>\$2,658,051</u>	<u>\$16,023,594</u>	<u>\$31,322,322</u>

kWh generated less station use (thousands)	106,661	73,778	37,531	327,725	545,695
Total production expense including depreciation per kWh (mills)	63.275	79.857	70.823	48.893	57.399
Installed capacity at September 30, 1979 (kilowatts)	620,800	476,000	325,200	1,088,000	2,510,000
Ratio of average gross generation to installed capacity (percent)	2.03	1.82	1.41	3.50	2.55

**Nuclear production - Browns Ferry**

Operation					
Supervision and engineering					\$ 2,810,377
Fuel					47,978,968
Coolants and water					1,058,803
Steam					9,146,212
Electric					1,673,118
Miscellaneous					10,836,306
Total operation					<u>73,503,784</u>

Maintenance					
Supervision and engineering					3,338,150
Structures					2,223,878
Reactor plant					17,078,884
Electric plant					3,821,729
Miscellaneous plant					3,601,220
Total maintenance					<u>30,063,861</u>

Provision for depreciation					<u>29,164,868</u>
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Total (statistics appear on page 31)					<u>\$132,732,513</u>
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**Transmission**

Operation					
Supervision and engineering					\$ 3,691,134
Load dispatching					1,854,318
Stations					4,850,396
Overhead lines					664,069
Transmission of electricity by others					8,676
Miscellaneous					4,845,066
Rents					1,392,577
Total operation					<u>17,306,236</u>

\*Deduct

TENNESSEE VALLEY AUTHORITY  
 DETAILS OF POWER EXPENSE  
 FOR THE YEAR ENDED SEPTEMBER 30, 1979

SCHEDULE C  
 PAGE 6

Transmission - continued

Maintenance

Supervision and engineering	\$ 454,611	
Structures	456,698	
Station equipment	7,982,409	
Overhead lines	5,056,008	
Miscellaneous plant	618,708	
Total maintenance	<u>14,568,434</u>	
Total	<u>\$31,874,670</u>	

Customer accounts

Meter reading	\$ 206,433	
Customer records and collections	560,506	
Total	<u>\$ 766,939</u>	

Demonstration of power use

Supervision and general	\$ 2,846,530	
Domestic and rural	935,820	
Commercial and industrial	1,807,517	
Home weatherization program	3,933,174	
Information services	348,302	
Residential technical applications	221,366	
Load management	250,805	
Solar applications and demonstrations	2,413,251	
	<u>12,756,765</u>	
Less reimbursement from power distributors for technical advisory services	642,484	
Total	<u>\$12,114,281</u>	

Administrative and general

Direct

Operation

Salaries	\$11,055,211	
Office supplies and expenses	<u>5,537,927</u>	\$16,593,138
Less transfers to construction and other accounts		<u>1,551,903</u>
		15,041,235
Outside services employed		1,009,823
Property insurance		522,700
Injuries and damages		6,526,294
Employee pensions and benefits		41,619,325
Miscellaneous		16,547,154
Rents		1,473,316
Electricity used by shops and laboratories		<u>290,082*</u>
Total operation		82,449,765

Maintenance

General property	<u>324,802</u>	
Total direct	82,774,567	

Allocation from nonpower divisions

TVA general offices		
Direct; schedule F	\$10,661,548	
Multiple-use; schedule E	36,550	
Other divisions	<u>83,705</u>	10,781,803

Total administrative and general  
 charged to power operations

\$93,556,370

\*Deduct

**TENNESSEE VALLEY AUTHORITY**  
**DETAILS OF NONPOWER NET EXPENSE**  
**FOR THE YEAR ENDED SEPTEMBER 30, 1979**

SCHEDULE D  
PAGE 1

	Direct	Multiple-use (schedule E)	Total
<b>REGIONAL RESOURCES DEVELOPMENT</b>			
Navigation operations			
Studies and investigations			
Navigation engineering and investigations	\$1,307,048	\$ -	\$ 1,307,048
Administrative and central general expenses	23,955	-	23,955
	<u>1,331,003</u>	<u>-</u>	<u>1,331,003</u>
Operation and maintenance of facilities			
Operation	110,814	2,337,003	2,447,817
Maintenance	316,488	603,421	919,909
Administrative and general expenses	-	27,074	27,074
Provision for depreciation	<u>2,020,843</u>	<u>962,685</u>	<u>2,983,528</u>
Total expense of navigation operations	<u>\$3,779,148</u>	<u>\$3,930,183</u>	<u>7,709,331</u>
System flood control operations			
Studies and investigations			
System studies and investigations	\$ 614,561	\$ -	614,561
Administrative and central general expenses	9,165	-	9,165
	<u>623,726</u>	<u>-</u>	<u>623,726</u>
Operation and maintenance of facilities			
Operation	-	3,191,358	3,191,358
Maintenance	-	713,685	713,685
Administrative and general expenses	-	36,550	36,550
Provision for depreciation	<u>367,310</u>	<u>1,083,608</u>	<u>1,450,918</u>
Total expense of system flood control operations	<u>\$ 991,036</u>	<u>\$5,025,201</u>	<u>6,016,237</u>
Recreation development			
Recreation development	\$1,115,353	\$ -	1,115,353
Administrative and central general expenses	26,391	-	26,391
	<u>1,141,744</u>	<u>-</u>	<u>1,141,744</u>
Operation and maintenance of facilities			
Operation and maintenance	238,947	2,833,896	3,072,843
Administrative and general expenses	-	32,489	32,489
Provision for depreciation	<u>116,447</u>	<u>383,184</u>	<u>499,631</u>
Total expense of recreation development	<u>\$1,497,138</u>	<u>\$3,249,569</u>	<u>4,746,707</u>
Tributary area development			
Basic investigations	\$ 477,380	\$ -	477,380
Development assistance in specific tributary areas	1,655,613	-	1,655,613
Local government assistance	372,122	-	372,122
Administrative and central general expenses	<u>41,886</u>	<u>-</u>	<u>41,886</u>
	<u>2,547,001</u>	<u>-</u>	<u>2,547,001</u>
Operation and maintenance of facilities			
Operation and maintenance	-	390,014	390,014
Administrative and general expenses	-	2,707	2,707
Provision for depreciation	<u>194</u>	<u>269,102</u>	<u>269,296</u>
Total expense of tributary area development	<u>\$2,547,195</u>	<u>\$ 661,823</u>	<u>3,209,018</u>
Regional water quality management			
Regional water quality management			1,401,778
Provision for depreciation			56,063
Administrative and central general expenses			<u>14,360</u>
Total expense of regional water quality management			<u>1,472,201</u>
Fisheries and wildlife resources development			
Fisheries resources development			689,224
Wildlife resources management			692,394
Provision for depreciation			60,118
Administrative and central general expenses			<u>17,428</u>
Total expense of fisheries and wildlife resources development			<u>1,459,164</u>
Preliminary surveys and engineering			
Preliminary surveys and engineering			338,730
Administrative and central general expenses			<u>4,148</u>
Total expense of preliminary surveys and engineering			<u>342,878</u>



TENNESSEE VALLEY AUTHORITY  
 DETAILS OF NONPOWER NET EXPENSE  
 FOR THE YEAR ENDED SEPTEMBER 30, 1979

SCHEDULE D  
 PAGE 2

REGIONAL RESOURCES DEVELOPMENT - continued

Environmental education	
Environmental education	\$ 479,692
Provision for depreciation	8,336
Administrative and central general expenses	4,841
Total expense of environmental education	<u>492,869</u>
Valley agricultural development	
.. Farm resource management and fertilizer use	
Fertilizers used	39,437
Planning and supervision	1,573,259
	<u>1,612,696</u>
.. Less farmer payments for fertilizer	30,447
	<u>1,582,249</u>
Program evaluation and analysis	229,575
Technical assistance to Valley development organizations	152,102
Developing specialty enterprises for the rural poor	577,013
Agribusiness development	160,579
Administrative and general expenses	18,640
Net expense of Valley agricultural development	<u>2,720,158</u>
Forest resources development	
Forest resources development	2,194,202
Provision for depreciation	14,511
Administrative and central general expenses	37,978
Total expense of forest resources development	<u>2,246,691</u>
Strip mine reclamation demonstrations	
Strip mine reclamation demonstrations	2,009,027
Administrative and central general expenses	32,324
Total expense of strip mine reclamation demonstrations	<u>2,041,351</u>
Interagency health services demonstrations	
Interagency health services demonstrations	602,279
Administrative and central general expenses	4,086
Total expense of interagency health services demonstrations	<u>606,365</u>
Regional economic studies	
Regional economic studies	763,749
Administrative and central general expenses	11,616
Total expense of regional economic studies	<u>775,365</u>
Townlift community improvement	
Townlift community improvement	736,182
Administrative and central general expenses	13,219
Total expense of townlift community improvement	<u>749,401</u>
Human resources development	
Human resources development	756,609
Administrative and central general expenses	7,215
Total expense of human resources development	<u>763,824</u>
Minerals resources projects	
Minerals resources projects	315,093
Administrative and central general expenses	4,084
Total expense of minerals resources projects	<u>319,177</u>
Special opportunities counties program	
Special opportunities counties program	476,434
Administrative and central general expenses	7,067
Total expense of special opportunities counties program	<u>483,501</u>
Minority economic development	
Minority economic development	674,771
Administrative and central general expenses	1,786
Total expense of minority economic development	<u>676,557</u>

**TENNESSEE VALLEY AUTHORITY**  
**DETAILS OF NONPOWER NET EXPENSE**  
**FOR THE YEAR ENDED SEPTEMBER 30, 1979**

SCHEDULE D

PAGE 3

**REGIONAL RESOURCES DEVELOPMENT - continued**

Local flood damage prevention operations	
Local flood damage prevention operations	\$ 8,690,270
Local flood damage restoration	149,493
Provision for depreciation	13,504
Administrative and central general expenses	15,678
Total local flood damage prevention operations	<u>8,868,945</u>
Environmental quality projects	
Regional air quality management	203,793
Research on disposal of solid wastes	298,245
Administrative and central general expenses	4,374
Total expense of environmental quality projects	<u>506,412</u>
Net expense of regional resources development	<u>\$46,206,152</u>

**FERTILIZER DEVELOPMENT**

Research and development	
Chemical fertilizer research and development	
Fundamental research	\$ 1,933,022
Applied research	1,825,922
Process engineering	2,465,138
Ammonia from coal project	483,362
General expenses	2,483,531
	<u>9,190,975</u>
Soils and fertilizer research	1,615,733
Provision for depreciation	135,017
Administrative and general expenses	123,315
Total expense of research and development	<u>11,065,040</u>

**Fertilizer introduction**

Fertilizer industry demonstrations	
Fertilizers used	21,308,079
Educational distribution expense	2,071,702
Administrative and general expenses	137,295
	<u>23,517,076</u>
Less industry payments for fertilizer	<u>20,779,820</u>
	<u>2,737,256</u>
Farm test demonstrations outside the Valley	
Fertilizers used	269,409
Planning and supervision	1,004,534
Administrative and general expenses	13,980
	<u>1,287,923</u>
Less farmer payments for fertilizer	<u>162,041</u>
	<u>1,125,882</u>
Net expense of fertilizer introduction	<u>3,863,138</u>

**Developmental production**

Cost of products distributed	
Materials used	14,091,882
Direct manufacturing and shipping expense	10,472,697
Indirect manufacturing and shipping expense	2,901,995
Provision for depreciation and depletion	2,121,060
Finished inventory changes	871,782*
Total cost of products distributed	<u>28,715,852</u>
General expenses	
Gain on sale of phosphate reserves, net	71,347*
Loss on retirements of manufacturing plant and equipment, net	417,073
Other general expenses	
Administrative and general expenses	\$225,694
Shipping order and field inventory expenses	283,255
Provision for depreciation of idle manufacturing plant and equipment	166,471
Other, including depreciation of \$4,013	<u>440,823</u>
Total general expenses	<u>1,116,243</u>
Total production expense	<u>30,177,821</u>

\*Deduct

• TENNESSEE VALLEY AUTHORITY  
 DETAILS OF NONPOWER NET EXPENSE  
 FOR THE YEAR ENDED SEPTEMBER 30, 1979

SCHEDULE D

PAGE 4

FERTILIZER DEVELOPMENT - continued

Developmental production - continued

Less transfers and sales of products

Transfers to TVA programs, at market prices

Fertilizer industry demonstrations

Farm test demonstrations

Agricultural development

Other

Total transfers

Direct sales

Total transfers and sales

Net expense of developmental production

Net expense of fertilizer development

\$21,308,079  
 269,409  
 39,437  
 70,040  
21,686,965  
 150,519  
21,837,484  
 8,340,337  
\$23,268,515

NATIONAL ENERGY DEMONSTRATIONS

Waste heat utilization

Greenhouse environmental control, including depreciation  
 of \$261,171

Soil heating to extend crop growing season

Biological recycling of nutrients from livestock waste

Environmental control of livestock facilities

Aquaculture

Administrative and general expenses

Watts Bar waste heat park development

Net expense of waste heat utilization

Solar energy demonstrations

Coal gasification demonstration

Atmospheric fluidized bed combustion demonstration

Other energy demonstration projects

\$ 727,141  
 14,352  
 299,734  
 12,935  
 331,547  
 6,955  
636,359  
 2,029,023  
 1,663,006  
 306,589  
 571,944  
127,515

Total expense of national energy demonstrations

\$ 4,698,077

LAND BETWEEN THE LAKES OPERATIONS

Land Between The Lakes operations

Provision for depreciation

Administrative and central general expenses

\$ 4,754,570  
 700,033  
91,956

Total expense of Land Between The Lakes operations

\$ 5,546,559

VALLEY MAPPING AND REMOTE SENSING

Valley mapping and remote sensing

Provision for depreciation

Administrative and central general expenses

\$ 980,648  
 16,289  
14,827

Total expense of Valley mapping and remote sensing

\$ 1,011,764

OTHER EXPENSE OR INCOME

Scientific and technical cooperation

Southeastern regional library demonstration

Emergency preparedness

Maintenance of bridges financed by others on TVA dams

Interest income from receivables

\$ 105,606  
 22,319  
 15,323  
 1,084,520  
39,513\*

Other expense, net

\$ 1,188,255

NET EXPENSE

\$81,919,322

\*Deduct

TENNESSEE VALLEY AUTHORITY  
OPERATING EXPENSES OF MULTIPLE-USE FACILITIES  
FOR THE YEAR ENDED SEPTEMBER 30, 1979

SCHEDULE E

Expenses

Operation

Water control operations	\$1,677,553
Water control investigations	296,647
Investigations and control of reservoir ecology	1,429,499
Plant protection and services to visitors	2,320,077
Operation and upkeep of dam reservations	2,267,957
Reservoir land management	3,322,894
Development of water resource management methods	560,053
Central services expenses	90,362

Total operation

11,965,042

Administrative and general expenses

135,370

Maintenance

2,408,229

Provision for depreciation

3,945,875

Total

\$18,454,516

	<u>Operation</u>	<u>Administrative and general</u>	<u>Maintenance</u>	<u>Depreciation</u>	<u>Total</u>
Distributed to					
Power operations	\$ 3,415,379	\$ 36,550	\$ 888,515	\$1,247,296	\$ 5,587,740
Navigation operations	2,337,003	27,074	603,421	962,685	3,930,183
Flood control operations	3,191,358	36,550	713,685	1,083,608	5,025,201
Recreation development	2,737,197	32,489	96,699	383,184	3,249,569
Tributary area development	<u>284,105</u>	<u>2,707</u>	<u>105,909</u>	<u>269,102</u>	<u>661,823</u>
Total	<u>\$11,965,042</u>	<u>\$135,370</u>	<u>\$2,408,229</u>	<u>\$3,945,875</u>	<u>\$18,454,516</u>

TENNESSEE VALLEY AUTHORITY  
ADMINISTRATIVE AND GENERAL EXPENSES  
FOR THE YEAR ENDED SEPTEMBER 30, 1979

SCHEDULE F

Expenses

Board of directors	\$ 446,544
Office of the general manager	1,165,092
Planning and budget staffs	1,104,521
Washington office	381,644
Information office, including technical library service	3,251,555
Equal employment opportunity staff	1,394,152
Division of personnel	1,055,553
Division of finance	4,772,430
Office of the general counsel	4,123,121
Office of management services	106,732
Division of property and services	873,564
Division of management systems	1,143,050
Medical and safety services	3,717,878
Other administrative and general	218,196
Total	<u>\$23,754,032</u>

	<u>Amount</u>	<u>Percent of total</u>
Distributed to		
Construction and investigations in progress	\$11,849,070	49.88
Recovered through services billed to others at cost	352,040	1.48
Expense of programs		
Power	10,661,548	44.88
Water resources development		
Navigation	14,003	.06
System flood control	7,001	.03
Regional water quality management	9,336	.04
Fisheries and wildlife resources development	9,336	.04
Preliminary surveys and engineering	2,334	.01
Recreation development	11,670	.05
Environmental education	2,334	.01
Multiple-use facilities operations	135,370	.57
Fertilizer development		
Developmental production	225,694	.95
Fertilizer introduction		
Fertilizer industry demonstrations	137,295	.58
Farm test demonstrations	13,980	.06
Research and development	123,315	.52
National energy demonstrations	6,955	.03
Regional resources development		
Valley agricultural development	18,640	.08
Forest resources development	23,340	.10
Strip mine reclamation demonstrations	23,340	.10
Tributary area development	23,340	.10
Interagency health services demonstrations	2,334	.01
Regional economic studies	7,001	.03
Townlift community improvement	9,336	.04
Human resources development	4,668	.02
Special opportunities counties	7,002	.03
Minerals resources projects	2,334	.01
Local flood damage prevention operations	9,336	.04
Environmental quality projects	2,334	.01
Land Between The Lakes operations	51,347	.21
Valley mapping and remote sensing	8,399	.03
Total	<u>\$23,754,032</u>	<u>100.00</u>

