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WALLACE, E.G. Tennessee Valley Authority I
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SUBJECT: Forwards util financial statements for FY ending 900930,
power quarterly rept, 1-yr internal cash flow projection &
narrative statement re curtailment of capital expenditures,
to assure retrospective premiums, per 10CFR140. S
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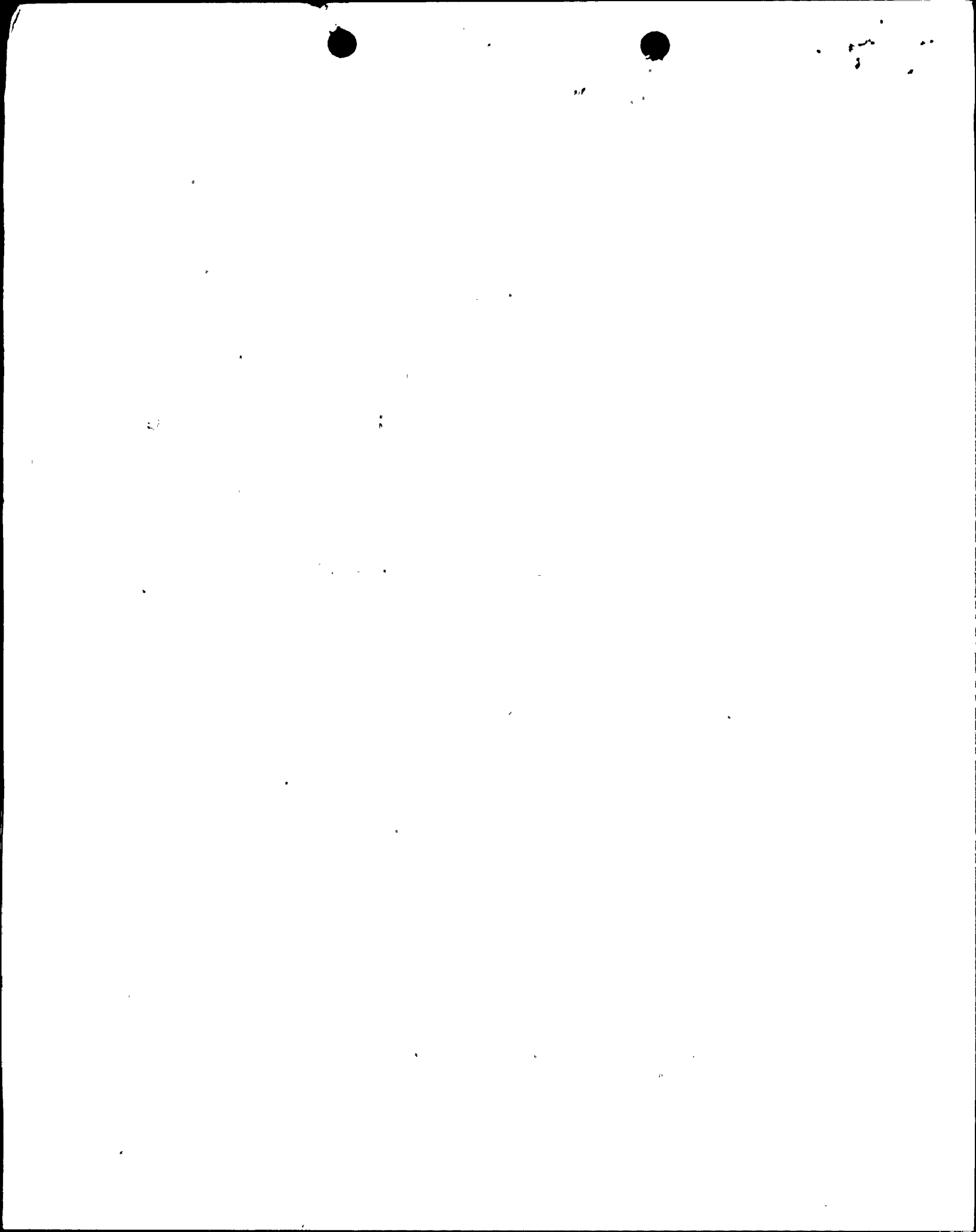
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Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

OCT 01 1991

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of)	Docket Nos.	50-259	50-327
Tennessee Valley Authority)		50-260	50-328
			50-296	

FINANCIAL INFORMATION REQUIRED TO ASSURE RETROSPECTIVE PREMIUMS


To satisfy the requirements of 10 CFR Part 140 and as stated in our December 9, 1977, letter to NRC, TVA has selected alternative five to meet the guarantee requirements of the retrospective premium system. The enclosed statements are submitted to meet this guarantee requirement.

1. TVA financial statements for fiscal year ending September 30, 1990
2. TVA "Power Quarterly Report"
3. A one-year internal cash flow projection for the TVA power system (tabulation A) with an explanation for underlying assumptions
4. A narrative statement regarding the curtailment of capital expenditures if retrospective premiums should be paid

October 1 is the annual submission date for financial information required to assure retrospective premiums.

If you have any questions, please telephone P. J. Hammons at (615) 751-2736.

Sincerely,


E. G. Wallace, Manager
Nuclear Licensing
and Regulatory Affairs

Enclosures
cc: See page 2

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U.S. Nuclear Regulatory Commission

OCT 01 1991

Enclosures

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1. The first part of the document discusses the general situation in the country and the progress of the work.

2. The second part of the document discusses the specific measures taken to improve the situation.

3. The third part of the document discusses the results of the work and the prospects for the future.

4. The fourth part of the document discusses the conclusions drawn from the work and the recommendations for further action.

5. The fifth part of the document discusses the implementation of the recommendations and the progress made.

Certification of Internal Cash Flow Projections
For the Period October 1, 1991, to September 30, 1992

I, Robert L. Yates, Vice President and Treasurer for the Tennessee Valley Authority, hereby certify that the cash flow projections for the TVA power system for the period October 1, 1991, to September 30, 1992, attached hereto represents the current projection of the cash flow of the TVA power program.

Robert L. Yates

Robert L. Yates
Vice President and Treasurer

State of Tennessee
County of Knox

Subscribed and sworn to before me
this 25th day of September 1990.

David C. Reynolds, Jr.

David C. Reynolds, Jr.

My commission expires February 24, 1993.

Information Regarding the Adequacy of Cash Flows
Required to Assure Payment of Retrospective Premiums

Tabulation A attached provides a projection of cash flow for the TVA power system. The period of this projection extends from October 1, 1991, to September 30, 1992. The cash shown is the amount available from current revenues after paying all operating expenses and interest charges. TVA's payments to the U.S. Treasury have been excluded since these payments may be delayed up to two years when, in the judgment of the TVA Board of Directors, such payments cannot feasibly be made because of inadequate funds occasioned by factors beyond the control of the corporation /TVA Act Sec. 15d Subsection (e)/.

With three units at Browns Ferry and two units at Sequoyah Nuclear Plants currently having operating licenses, the maximum quarterly cash flow requirement will be \$50 million, under the present law. The average quarterly cash estimated for the 12-month period is \$206 million. TVA has the option of making rate changes quarterly throughout the period. The actual timing and amount of the rate change to ensure adequate cash flows would be determined by the TVA Board.

Projected TVA power system loads are based on normal weather conditions. Estimated generation is based on the assumption of normal scheduled and emergency maintenance outage requirements.

0203X

Tabulation A
Tennessee Valley Authority
Estimated Sources of Funds
(Millions of Dollars)

Twelve Months

	<u>10/91-12/91</u>	<u>1/92-3/92</u>	<u>4/92-6/92</u>	<u>7/92-9/92</u>	<u>Total 12-Month Period</u>
Net Income or loss (-)	\$60	\$124	\$59	\$156	\$399
Non-Cash Charges (Credits) to Income	35	35	36	34	140
Depreciation & Depletion	89	89	95	96	369
Other - (allowance for funds used in construction)	<u>-20</u>	<u>-21</u>	<u>-21</u>	<u>-22</u>	<u>-84</u>
Total Funds From Operations	<u>\$164</u>	<u>\$227</u>	<u>\$169</u>	<u>\$264</u>	<u>\$824</u>

0203X



Statement Regarding the Curtailment
of Capital Expenditures
If Retrospective Premiums Should Be Paid

No curtailment in capital expenditures is expected in the event retrospective premiums have to be made available for payment during this period. It is assumed that sufficient short-term and long-term borrowing capacity will continue to be available to provide funds for continuing capital expenditures at the projected level.

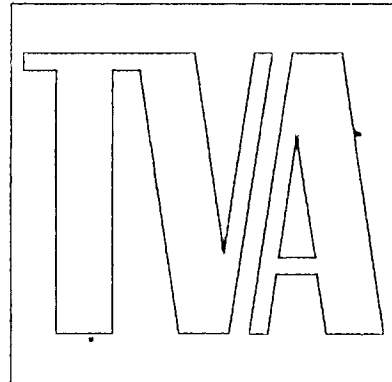
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TENNESSEE VALLEY AUTHORITY

POWER
THIRD
QUARTERLY
REPORT



(UNAUDITED) NINE MONTHS
ENDED JUNE 30, 1991



**NET POWER INCOME
AND RETAINED EARNINGS REINVESTED (UNAUDITED)**

	Nine Months Ended June 30		Twelve Months Ended June 30	
	1991	1990	1991	1990
	(MILLIONS)		(MILLIONS)	
OPERATING REVENUES				
Sales of electric energy				
Municipalities and cooperatives	\$3,050	\$3,100	\$4,241	\$4,221
Federal agencies	189	306	297	449
Industries	403	411	539	543
Electric utilities	7	14	11	16
Other	52	53	69	69
Total operating revenues	<u>3,701</u>	<u>3,884</u>	<u>5,157</u>	<u>5,298</u>
OPERATING EXPENSES				
Fuel and purchased power, net	983	972	1,392	1,319
Other production expense	379	351	539	491
Tax-equivalent payments	180	176	237	233
Depreciation	251	268	324	360
Other	373	544	585	734
Total operating expenses	<u>2,166</u>	<u>2,311</u>	<u>3,077</u>	<u>3,137</u>
OTHER INCOME AND DEDUCTIONS, NET				
Total income before interest charges	<u>24</u>	<u>4</u>	<u>(1,119)</u>	<u>16</u>
	<u>1,559</u>	<u>1,577</u>	<u>961</u>	<u>2,177</u>
INTEREST CHARGES				
Interest on debt	1,213	1,212	1,617	1,655
Amortization of debt discount and expense, net	44	39	58	41
Allowance for funds used during construction	(60)	(220)	(142)	(286)
Total interest charges	<u>1,197</u>	<u>1,031</u>	<u>1,533</u>	<u>1,410</u>
NET INCOME (LOSS)*				
	362	546	(572)	767
Return on appropriation investment	48	51	65	67
Increase in retained earnings	314	495	(637)	700
Retained earnings reinvested at beginning of period	2,777	3,232	3,728	3,027
Retained earnings reinvested at end of period	<u>\$3,091</u>	<u>\$3,727</u>	<u>\$3,091</u>	<u>\$3,727</u>
POWER CASH FLOWS (UNAUDITED)				
NET CASH FROM OPERATIONS				
Net income (loss)*	\$ 362	\$ 546	\$ (572)	\$ 767
Items not requiring cash	275	345	1,512	469
Other changes, net	(50)	88	30	(341)
Net cash provided by operations	<u>587</u>	<u>979</u>	<u>970</u>	<u>895</u>
NET CASH USED IN INVESTING ACTIVITIES				
Construction expenditures	(891)	(937)	(1,768)	(1,342)
Other, net	79	140	627	169
Net cash used in investing activities	<u>(812)</u>	<u>(797)</u>	<u>(1,141)</u>	<u>(1,173)</u>
NET CASH USED IN FINANCING ACTIVITIES				
Borrowings, net	502	(252)	449	(741)
Other	(63)	(66)	(85)	(87)
Net cash provided by (used in) financing activities	<u>439</u>	<u>(318)</u>	<u>364</u>	<u>(828)</u>
Net change in cash and cash equivalents	214	(136)	193	(1,106)
Cash and cash equivalents at beginning of period	5	162	26	1,132
Cash and cash equivalents at end of period	<u>\$ 219</u>	<u>\$ 26</u>	<u>\$ 219</u>	<u>\$ 26</u>

FINANCIAL HIGHLIGHTS

NET INCOME

	Nine Months Ended June 30		Twelve Months Ended June 30	
	1991	1990	1991	1990
	(MILLIONS)			
Operating revenues	\$3,701	\$3,884	\$5,157	\$5,298
Operating expenses	2,166	2,311	3,077	3,137
Net income (loss)*	362	546	(572)	767

ASSETS & DEBT

	June 30	
	1991	1990
	(MILLIONS)	
Total assets	\$27,242	\$27,319
Long-term debt	\$18,655	\$18,805

SALES OF ELECTRIC ENERGY

	Nine Months Ended June 30		Nine Months Ended June 30	
	1991	1990	1991	1990
	Amount	kWh	Amount	kWh
	(MILLIONS)			
Municipalities and cooperatives	\$3,050	69,551	\$3,100	69,575
Federal agencies	189	1,578	306	1,674
Industries	403	13,192	411	12,846
Electric utilities	7	35	14	192
Total sales of electric energy	<u>\$3,649</u>	<u>84,356</u>	<u>\$3,831</u>	<u>84,287</u>

RESULTS OF OPERATIONS

TVA's operating revenues declined by 3 percent for the quarter ended June 30, 1991, when compared to the same period last year, to \$1,222 million, down from \$1,266 million. Of the \$44 million decrease, \$39 million is attributed to the reduction in the Department of Energy settlement payment. Revenues were also affected by the economic downturn.

Total power sales for the quarter were 28 billion kilowatt-hours, an increase of about 1-1/2 percent from the corresponding quarter a year ago. TVA's net income was \$116 million, down slightly from \$119 million for the third quarter a year ago.

TVA continues to control operating costs, which, at \$711 million for this quarter, were 12 percent lower than the \$807 million recorded for the same period last year. Fiscal year 1991 operating expenses of \$2,166 million are 6 percent lower than the \$2,311 million recorded as of the third quarter of last fiscal year. Operating results through the third quarter of fiscal year 1991 and financial projections for fiscal year 1992 enabled the Chief Financial Officer to recommend that electric rates be held constant for a fifth consecutive year.

Operating revenues in the first nine months of fiscal year 1990 were enhanced by the highest demand ever recorded on the TVA power system, due to colder than normal weather. Conversely, mild weather conditions in the first nine months of fiscal year 1991 resulted in lower than normal power demand.

*The majority of the net loss for the twelve months ended June 30, 1991 is the writeoff of the unamortized deferred debt related to canceled nuclear plant construction. TVA was able to accomplish this writeoff and others because of its improved operating and financial performance. Had the writeoffs not been made, TVA would have reported net income of approximately \$340 million for the twelve-month period.

BALANCE SHEETS (UNAUDITED)

	June 30	
	1991	1990
	(MILLIONS)	
ASSETS		
PROPERTY, PLANT, AND EQUIPMENT		
Completed plant; see Note	\$12,828	\$12,406
Less accumulated depreciation	<u>4,625</u>	<u>4,486</u>
Net completed plant	8,203	7,920
Construction in progress	6,837	5,833
Deferred nuclear generating units	5,914	5,888
Nuclear fuel and capital lease assets	<u>2,638</u>	<u>2,565</u>
Total property, plant, and equipment	<u>23,592</u>	<u>22,206</u>
INVESTMENT FUNDS	<u>169</u>	<u>288</u>
CURRENT ASSETS	<u>1,394</u>	<u>1,237</u>
DEFERRED CHARGES	<u>2,087</u>	<u>3,588</u>
Total assets	<u>\$27,242</u>	<u>\$27,319</u>
CAPITALIZATION AND LIABILITIES		
PROPRIETARY CAPITAL		
Appropriation investment	\$ 728	\$ 748
Less requirement for repayment of appropriation investment	15	15
Retained earnings reinvested in power program	<u>3,091</u>	<u>3,727</u>
Total proprietary capital	<u>3,804</u>	<u>4,460</u>
LONG-TERM DEBT		
Principal	18,655	18,805
Less unamortized discount	<u>214</u>	<u>224</u>
Total long-term debt	<u>18,441</u>	<u>18,581</u>
OTHER LIABILITIES	<u>3,087</u>	<u>2,959</u>
CURRENT LIABILITIES		
Short-term notes		
U.S. Treasury	150	150
Federal Financing Bank	<u>706</u>	<u>111</u>
Short-term notes	856	261
Other current liabilities	<u>1,054</u>	<u>1,058</u>
Total current liabilities	<u>1,910</u>	<u>1,319</u>
Total capitalization and liabilities	<u>\$27,242</u>	<u>\$27,319</u>

Note. Total single-use power plant plus portions of multipurpose dams allocated to power. The total investment in multipurpose dams at June 30, 1991, was \$1,505 million, classified as follows: power, \$610 million; other programs, \$895 million.

LETTER FROM THE CHAIRMAN OF THE BOARD

TVA is proud to have marked an important milestone this quarter—the restart of the unit 2 reactor at Browns Ferry Nuclear Plant, completing one of the most extensive recovery efforts in the nuclear industry. We devoted some 15 million engineering workhours to establishing the engineering criteria, designs, and documentation for unit 2 startup and operation. More than 9 million workhours were completed to make plant improvements identified by TVA and the Nuclear Regulatory Commission, and we are very pleased with this progress.

Another milestone was achieved this quarter when employees at TVA's Sequoyah Nuclear Plant celebrated 100 days of continuous operation for each of the plant's two nuclear reactors.

In addition to marking our successes in the nuclear program, we have also made significant improvements in the way TVA conducts its operations. These changes are part of our continuing efforts to hold electric power rates steady and to better serve the customers of our power system and resource development programs.

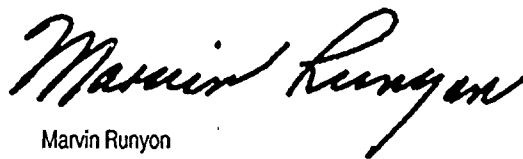
As we focus on excellence in maintaining and operating our power plants, transmission system, and other facilities, we have determined that it will be most cost-effective to have other companies carry out construction and major modification projects.

Hiring companies that specialize in this work will allow TVA to concentrate on our own central business responsibilities—providing quality services, competitively

priced power, and effective programs that help the Tennessee Valley region and the nation to grow and prosper. And TVA will rely on the experience, expertise, and flexibility of private contractors for completing its future construction and modification projects. In that way, each will be doing what it does best. These changes will help TVA make its most important contribution to the people of the Valley: serving our customers and keeping our power rates competitive.

Also during the quarter, we welcomed TVA's 22nd Director, William H. Kennoy, who was sworn in as a Board member May 31. The Lexington, Ky., engineer and businessman brings to the Board of Directors more than 30 years of experience as a private business manager. We are looking forward to his tenure on the Board.

TVA remains committed to service, quality and change, and we are working hard to be the very best electric utility in North America and the most productive and effective agency in the federal government.



Marvin Runyon
Chairman of the Board
July 29, 1991





Tennessee Valley Authority
1990 Financial Statements

Financial Highlights *as of and for the years ended September 30*

(In Millions)	1990	1989	Percent Change
Operating Revenues	\$ 5,339	\$ 5,287	1.0
Operating Expenses	3,221	3,203	.6
Operating Income	2,118	2,084	1.6
Interest Expense, exclusive of AFUDC	1,670	1,842	(9.3)
Net Income (Loss)	(387)	559	(169.2)
Total Assets	\$27,672	\$27,183	1.8
Capitalization			
Proprietary Capital	4,599	5,102	(9.9)
Long-Term Debt	18,583	17,303	7.4
Total Capitalization	23,182	22,405	3.5

System Statistics

(Millions of kilowatt-hours)	1990	1989	Percent Change
System Input			
System Generation			
Hydro, including Pumped Storage	21,654	19,530	10.9
Coal	78,504	79,493	(1.2)
Nuclear	15,275	12,773	19.6
Combustion Turbine	203	37	448.6
Total Net Generation	115,636	111,833	3.4
Purchased	959	818	17.2
Net Interchange and Wheeling	4,191	3,398	23.3
Total System Input	120,786	116,049	4.1
System Output			
Sales			
Municipalities and Cooperatives	96,748	92,538	4.5
Federal Agencies	2,336	2,341	(.2)
Industries	17,134	16,260	5.4
Electric Utilities	265	453	(41.5)
Total Sales	116,483	111,592	4.4
Delivered Under Cogeneration Agreement	1,168	1,621	(27.9)
Losses	3,135	2,836	10.5
Total System Output	120,786	116,049	4.1
Installed Capacity in Service (megawatts)	28,328	28,654	(1.1)
Percent of Average Gross Generation to Installed Capacity in Service	50.02	47.91	4.4
System Peak Load (megawatts)	24,627	20,638	19.3
Annual Load Factor	53.60	61.86	(13.4)
Percent Installed Capacity by Fuel Source			
Coal	62%	62%	
Hydro	20%	21%	
Combustion Turbine	9%	9%	
Nuclear, excluding Browns Ferry	9%	8%	

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Balance Sheets at September 30, 1990 and 1989

Assets

(In Millions)	Power program		All programs	
	1990	1989	1990	1989
PROPERTY, PLANT, AND EQUIPMENT				
Completed plant	\$12,830	\$12,099	\$13,989	\$13,359
Less accumulated depreciation and depletion	4,422	4,232	4,653	4,546
Completed plant, net	8,408	7,867	9,336	8,813
Construction in progress	6,022	5,213	6,117	5,317
Deferred nuclear generating units	5,890	5,884	5,890	5,884
Capital lease assets and nuclear fuel	2,589	2,513	2,589	2,513
Total	22,909	21,477	23,932	22,527
INVESTMENT FUNDS, at accreted cost	297	263	297	263
CURRENT ASSETS				
Cash	5	162	119	256
Accounts receivable	731	707	747	720
Inventories, at average cost	495	464	498	473
Total	1,231	1,333	1,364	1,449
DEFERRED CHARGES AND OTHER ASSETS				
Loans and other long-term receivables	260	266	304	309
Unamortized cost of canceled nuclear generating units	-	1,612	-	1,612
Deferred nuclear recovery costs	847	735	847	735
Unamortized debt issue and reacquisition costs	919	72	919	72
Other deferred charges	9	216	9	216
Total	2,035	2,901	2,079	2,944
Total assets	\$26,472	\$25,974	\$27,672	\$27,183

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

Capitalization and Liabilities

(In Millions) Power program All programs
1990 1989 1990 1989

CAPITALIZATION

Proprietary capital

Appropriation investment, net \$ 728 \$ 748 \$ 4,121 \$ 4,022

Retained earnings reinvested
in the power program 2,777 3,232 2,777 3,232

Accumulated net expense of
nonpower programs - - (2,299) (2,152)

Total 3,505 3,980 4,599 5,102

Long-term debt 18,583 17,303 18,583 17,303

Total 22,088 21,283 23,182 22,405

OTHER LIABILITIES

Capital lease obligations 2,383 2,377 2,383 2,377

Decommissioning of nuclear plant 264 213 264 213

Other accrued liabilities 165 125 165 125

Total 2,812 2,715 2,812 2,715

CURRENT LIABILITIES

Short-term debt 207 892 207 892

Current portion of capital lease obligations 201 131 201 131

Accounts payable 557 485 635 550

Payrolls and other accrued costs 90 86 118 108

Interest accrued 517 382 517 382

Total 1,572 1,976 1,678 2,063

COMMITMENTS AND CONTINGENCIES (Notes 5, 9, 12, 14, and 15)

Total capitalization and liabilities \$26,472 \$25,974 \$27,672 \$27,183

Power Program**Statements of Operations and Retained Earnings** *Years Ended September 30, 1990, 1989, 1988*

(In Millions)	1990	1989	1988
OPERATING REVENUES			
Sales of electric energy			
Municipalities and cooperatives	\$4,292	\$4,109	\$4,100
Federal agencies	413	569	623
Industries	548	526	513
Electric utilities	17	21	26
Total sales of electric energy	5,270	5,225	5,262
Other	69	62	60
Total operating revenues	5,339	5,287	5,322
OPERATING EXPENSES			
Production			
Fuel and purchased power, net	1,381	1,370	1,589
Other	511	534	640
Tax-equivalent payments	233	232	225
General and administrative	313	299	398
Amortization of canceled nuclear units and deferred nuclear costs	315	311	32
Provision for depreciation	341	343	334
Other operating expenses	127	114	232
Total operating expenses	3,221	3,203	3,450
Operating income	2,118	2,084	1,872
OTHER INCOME AND DEDUCTIONS			
Interest income	38	90	92
Charge related to loss on canceled nuclear generating units	(900)	-	(217)
Charge related to deferred operating cost at Browns Ferry	(125)	-	-
Charges related to losses on uranium and coal properties	(93)	-	-
Other, net	(58)	(29)	(30)
Total other income and deductions	(1,138)	61	(155)
Income before interest charges	980	2,145	1,717
INTEREST CHARGES			
Interest expense	1,670	1,842	1,829
Allowance for funds used during construction	(303)	(256)	(525)
Net interest charges	1,367	1,586	1,304
NET INCOME (LOSS)			
Return on appropriation investment	68	67	69
Increase (decrease) in retained earnings reinvested	(455)	492	344
Retained earnings reinvested at beginning of period	3,232	2,740	2,396
Retained earnings reinvested at end of period	\$2,777	\$3,232	\$2,740

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

Nonpower Programs

Statements of Net Expense and Accumulated Net Expense *Years Ended September 30, 1990, 1989, 1988*

(In Millions)	1990	1989	1988
NATURAL RESOURCES DEVELOPMENT			
Navigation operations	\$ 14	\$ 13	\$ 12
Flood hazard analysis	12	11	10
Recreation resources	10	9	9
Economic development and analysis	7	5	6
Regional water and waste supply management	12	8	5
Land Between The Lakes operations	8	7	7
Other natural resources development projects	18	22	24
Net expense of natural resources development	81	75	73
FERTILIZER DEVELOPMENT			
Research and development	15	15	16
Fertilizer technology development	8	9	9
Developmental production	42	49	9
Net expense of fertilizer development	65	73	34
OTHER EXPENSE, NET	1	1	4
NET EXPENSE	147	149	111
Accumulated net expense at beginning of period	2,152	2,003	1,892
Accumulated net expense at end of period	\$2,299	\$2,152	\$2,003
The accompanying notes are an integral part of these financial statements.			

Statements of Cash Flows *Years Ended September 30, 1990, 1989, 1988*

(In Millions)	Power program			All programs		
	1990	1989	1988	1990	1989	1988
CASH FLOWS FROM OPERATING ACTIVITIES						
Net power income (loss)	\$ (387)	\$ 559	\$ 413	\$ (387)	\$ 559	\$ 413
Net expense of nonpower programs	-	-	-	(147)	(149)	(111)
Items not requiring (providing) cash						
Provision for depreciation	341	343	335	350	357	348
Amortization of canceled nuclear units and deferred nuclear costs	315	311	249	315	311	249
Allowance for funds used during construction	(303)	(256)	(525)	(303)	(256)	(525)
Charges related to losses on canceled nuclear generating units, deferred operating costs, and uranium and coal properties	1,118	-	-	1,118	-	-
Other, net	111	(17)	(12)	111	25	(12)
Changes in current assets and liabilities						
Accounts receivable, net	(25)	(14)	2	(28)	(15)	8
Inventories	(31)	27	80	(24)	28	80
Prepaid expenses	12	(8)	(5)	12	(8)	(4)
Accounts payable	76	(8)	(5)	94	(4)	(5)
Interest payable	135	(15)	30	135	(15)	30
Net cash provided by operating activities	1,362	922	562	1,246	833	471
CASH FLOWS FROM INVESTING ACTIVITIES						
Construction expenditures	(1,814)	(1,114)	(1,451)	(1,830)	(1,123)	(1,465)
Allowance for funds used during construction	303	256	525	303	256	525
Transfer of certain costs of canceled nuclear generating units	410	-	-	410	-	-
Other, net	11	(34)	(131)	43	(31)	(123)
Cash construction expenditures	(1,090)	(892)	(1,057)	(1,074)	(898)	(1,063)
Nuclear fuel	(38)	(37)	(31)	(38)	(37)	(31)
Investments	2	892	(127)	2	892	(127)
Net cash used in investing activities	(1,126)	(37)	(1,215)	(1,110)	(43)	(1,221)
CASH FLOWS FROM FINANCING ACTIVITIES						
Long-term debt						
Issues	8,000	700	400	8,000	700	400
Redemptions	(400)	(500)	-	(400)	(500)	-
Debt defeased	(6,100)	(800)	-	(6,100)	(800)	-
Short-term borrowings, net	(685)	136	345	(685)	136	345
Borrowing expenses, net	(1,120)	(182)	-	(1,120)	(182)	-
Congressional appropriations and transfers	-	-	-	120	104	103
Payments to U.S. Treasury	(88)	(87)	(89)	(88)	(87)	(89)
Net cash provided by (used in) financing activities	(393)	(733)	656	(273)	(629)	759
Net change in cash and cash equivalents	(157)	152	3	(137)	161	9
Cash and cash equivalents at beginning of year	162	10	7	256	95	86
Cash and cash equivalents at end of year	\$ 5	\$ 162	\$ 10	\$ 119	\$ 256	\$ 95

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

Notes to Financial Statements

The Tennessee Valley Authority (TVA) is a wholly-owned corporation of the United States Government created by the Tennessee Valley Authority Act of 1933. The Tennessee Valley Authority was created for the purpose of maintaining and operating the properties owned by the United States in the vicinity of Muscle Shoals, Alabama, in the interest of the national defense and for agricultural and industrial development, and to improve navigation in the Tennessee River and to control the destructive flood waters in the Tennessee River and Mississippi River Basins. Power rates are established by the TVA Board of Directors as authorized by the TVA Act.

1. Summary of significant accounting policies—Power accounts are maintained in accordance with the uniform system of accounts prescribed by the Federal Energy Regulatory Commission. Nonpower accounts are maintained in accordance with applicable generally accepted accounting principles.

- *Plant additions and retirements*—Additions to plant are recorded at cost, which includes material and labor as well as indirect construction costs. Indirect costs include general engineering, a portion of corporate overhead, and an allowance for funds used during construction. The cost of renewals and betterments of units of property is capitalized. The cost of current repairs and minor replacements is charged to operating expense. The original cost of property retired, together with removal costs less salvage value, is charged to accumulated depreciation.

- *Depreciation and depletion*—Straight-line depreciation is provided for substantially on a composite basis. Rates of depreciation are derived from engineering studies of useful life and are reviewed each year. Depletion of coal land and landrights is provided on a unit of production basis. The average of the composite rates that were applied individually to each major class of plant for fiscal years 1990, 1989, and 1988 was 2.78 percent, 2.89 percent, and 2.98 percent, respectively. As a result of studies, the estimated useful lives of the Sequoyah and Browns Ferry nuclear plants were revised in fiscal years 1990 and 1989 from 30 to 37 and 38 years, respectively. The effect of this revision was to reduce the annual depreciation provisions for 1990 and 1989 by \$35 million and \$18 million, respectively.

- *Decommissioning*—Provision for decommissioning costs of nuclear generating units is derived through engineering studies of useful life and estimated costs based on the dismantling/removal method. The cost estimates for decommissioning as provided in fiscal year 1990 were based on a current dollar value amounting to \$150 million and \$190 million per unit, respectively, for TVA's two pressurized water and three boiling water reactors in completed plant. The excess of the annual provision over earnings from the investments designated for funding decommissioning costs is financed by revenues, and accordingly, is included with the provision for depreciation on the statements of operations and retained earnings and cash flows.

- *Investment funds*—Certain power funds have been invested in order to provide adequate funding for decommissioning nuclear power plants. Investments are carried at cost, adjusted for amortization of premiums and accretion of discounts at the yield rate over the life of each instrument.

- *Allowance for funds used*—The practice of capitalizing an allowance for funds used during construction is followed in the power program. In accordance with the TVA Board of Directors' criteria for establishing wholesale power rates, the allowance is applicable to construction in progress excluding deferred nuclear generating units. The amount of interest capitalized is limited to the amount of depreciation and certain other noncash charges less the amount of the repayment of the appropriation investment to the U.S. Treasury. The method used provides for the monthly calculation of interest on debt equivalent to the average balance of construction work in progress. The interest is calculated on the most recent debt issues except for those representing refunding of existing debt, in which case the maturity date of the original issue is used.

- *Nuclear fuel*—The cost of nuclear fuel is charged to operations on a unit of production basis in amounts equal to lease payments (the cost of fuel burned plus finance charges) and a provision for spent nuclear fuel disposal. Total charges for nuclear fuel included in fuel expense amounted to (in millions) \$153, \$138, and \$31 for fiscal years 1990, 1989, and 1988, respectively.

- *Unamortized cost of canceled nuclear generating units*—During the five-year period ended September 30, 1989, certain costs related to canceled nuclear generating units were being amortized and included in rates charged to customers over a ten year period. In August 1990, the TVA Board of Directors elected to transfer \$410 million of the unamortized cost to "plant held for future use," as TVA has identified certain alternative generation uses for one of the canceled sites. The Board also elected not to recover from customers through

Notes to Financial Statements – Continued

rates the remaining unamortized balance of \$900 million. Accordingly, that amount has been charged to the 1990 statement of operations.

- Other deferred charges—Certain costs associated with uranium and coal mine and mill development activities, and annual aggregate depreciation and fuel interest charges for Units One and Two at Browns Ferry had been deferred. In August 1990 the Board elected not to recover these deferred amounts from customers. Accordingly the respective unamortized balances have been charged to the statement of operations.

- Deferred nuclear recovery costs—The costs incurred by TVA at the nonoperating completed nuclear production plants to accomplish the corrective actions necessary to obtain the Nuclear Regulatory Commission's approval to restart the plants are deferred and charged to operations over a ten-year period beginning with the restart of each idled unit. Unit Two at Sequoyah was returned to full commercial operation on July 1988 and Unit One returned to service in January 1989. Amortization of the deferred costs amounted to \$42 million for fiscal year 1990 and \$38 million for fiscal year 1989.

- Tax-equivalent payments—The TVA Act requires TVA to make payments to states and local governments in which the power operations of the corporation are carried out. The basic amount is five percent of gross revenues from the sale of power to other than Federal agencies during the preceding year, with the provision for minimum payments under certain circumstances.

- Statements of Cash Flows—For purposes of the Statements of Cash Flows, TVA considers the cash available in commercial bank accounts and U.S. Treasury accounts to be cash and cash equivalents. During fiscal years 1990, 1989, and 1988, interest paid (net of amount capitalized) was \$1,179 million, \$1,596 million, and \$1,268 million, respectively.

- Borrowing expenses—Issue and reacquisition expenses (discounts) on power borrowings from the public are amortized (accrued) 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 amounts under six thousand dollars are expensed as incurred. Reacquisition expense of recalled debt and call premiums and other costs associated with advance refunded debt are amortized over the remaining term of the replacement issues.

2. *Nuclear power program*—The nuclear power program at September 30, 1990 consists of nine generating units at four locations with investments as follows and in the status indicated:

	Capacity (Megawatts)	Completed Plant, Net	Construction In Progress	Deferred (Millions)	Fuel Investment	Scheduled Operation
Sequoyah						
Unit 1	1,221	\$ 424	\$ 34	\$ -	\$ 126	Operating
Unit 2	1,221	418	11	-	171	Operating
Common	-	746	110	-	-	
Browns Ferry						
Unit 1	1,152	175	24	-	177	Winter 1996
Unit 2	1,152	197	12	-	170	Spring 1991
Unit 3	1,152	183	-	-	116	Winter 1993
Common	-	469	651	-	-	
Watts Bar						
Unit 1	1,270	-	4,773	-	135	Spring 1992
Unit 2	1,270	-	-	1,623	144	Fall 1995
Bellefonte						
Unit 1	1,332	-	-	3,474	184	Fall 1997
Unit 2	1,332	-	-	793	185	Fall 1997
Raw Materials	-	-	-	-	941	
Total	11,102	\$2,612	\$5,615	\$5,890	\$2,349	

- The completed units at Browns Ferry were taken offline in March 1985 for plant modifications and regulatory improvements. The modifications and improvements are expected to be completed as shown in the above schedule. Unit One at Watts Bar under construction is substantially complete. Systems testing began in fiscal year 1990, and the majority of the fiscal year 1991 work effort will be focused on verification

Notes to Financial Statements – Continued

and corrective action programs related to quality issues. Operation is scheduled for 1992. Interest capitalized related to Unit One at Watts Bar during fiscal year 1990 was \$244 million. It is anticipated no interest will be capitalized in subsequent years, since the unit is substantially complete.

- Construction of Unit Two at Watts Bar was suspended in 1988 to permit TVA to more efficiently concentrate its efforts and resources on the completion of Unit One. Current assessments indicate Unit Two will be completed and placed in service prior to 1996. A 1990 study of the two Bellefonte units was conducted to assess the feasibility of resumption of construction to allow the units to be placed in service around 1998-2000. Although no formal action has been taken to resume construction of these units, TVA has developed a systematic approach to coordinate placing these three units in service to meet forecasted generation capacity requirements. For financial reporting purposes the cost of these three units is presented as deferred nuclear generating units. Interest capitalization for these units was suspended in 1988. Budgeted 1991 expenditures for these three units are limited to certain licensing and design studies, and maintenance costs. The total project costs to complete these suspended construction and deferred units cannot reasonably be estimated until firm completion dates are established.

- All units not operating are expected to be completed as scheduled. If abandonment of any of these units should occur, TVA would recover these costs (including fuel) through rates charged to future customers.

- Nuclear waste—As provided in the Nuclear Waste Policy Act of 1982, TVA has entered into contracts with the United States Department of Energy (DOE) for disposal of spent nuclear fuel. Under the terms of the contract, TVA is required to pay a fee to the DOE of one mill per kilowatt-hour on the net electricity generated by each of its reactors. Total fees charged to operations for the years ended September 30, 1990, 1989, and 1988 were \$15 million, \$13 million, and \$2 million, respectively.

3. *Completed plant*—Completed plant for All Programs is stated at cost and consists of the following at September 30, 1990 and 1989:

(Millions)	<u>1990</u>	<u>1989</u>
Steam production plants	\$ 4,537	\$ 4,350
Nuclear production plants	3,503	3,471
Transmission plants	2,064	2,021
Multipurpose dams		
System allocation	1,091	1,079
Project allocation	413	407
Single-purpose dams	431	403
Other	<u>1,950</u>	<u>1,628</u>
	<u>\$13,989</u>	<u>\$13,359</u>

4. *Allocation of cost of multipurpose projects*—The TVA Act requires TVA's Board of Directors to allocate, subject to the approval of the President of the United States, the cost of completed multipurpose projects. 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 in completed multipurpose dams at September 30, 1990 and 1989 is:

(Millions)	Investment					
	Direct		Multiple-use		Total	
	<u>1990</u>	<u>1989</u>	<u>1990</u>	<u>1989</u>	<u>1990</u>	<u>1989</u>
Power	\$387	\$379	\$222	\$220	\$ 609	\$ 599
Navigation	295	294	172	170	467	464
Flood control	65	65	195	194	260	259
Recreation	6	6	116	114	122	120
Local economic development	-	-	46	44	46	44
Total	<u>\$753</u>	<u>\$744</u>	<u>\$751</u>	<u>\$742</u>	<u>\$1,504</u>	<u>\$1,486</u>

Notes to Financial Statements — Continued

5. *Expenditures for completed plant*—Projected expenditures, including capitalized interest, are estimated to amount to \$1.6 billion, \$2.1 billion, and \$2.6 billion for fiscal years 1991, 1992 and 1993, respectively. These estimates are reviewed and revised periodically to reflect changes in economic conditions and other factors considered in their determination. Substantial commitments have been incurred for these projects.

6. *Certain nonpower projects*—The \$115 million cost of the North Alabama coal gasification project, which was financed by congressional appropriations, is carried in completed plant. The project is in a defense energy reserve status subject to periodic evaluations of the project's viability.

- The construction required to complete the Columbia Dam and Reservoir, a multipurpose project financed by congressional appropriations, has been suspended due to budget restrictions and environmental concerns. The total cost of the project, \$82 million, is carried in construction in progress. Studies are being conducted to consider alternative uses of the land and facilities should the project not be completed.

7. *Leases*—Nuclear fuel is obtained directly from vendors and through contractual arrangements providing for mining, milling, and fabrication of raw materials obtained from land leased by TVA. Under an agreement entered into in fiscal year 1980, TVA sells and leases back nuclear fuel on hand. TVA leases property, plant, and equipment under lease agreements with terms ranging from one to thirty years. Under most of the agreements, TVA pays the property taxes, maintenance costs, and other costs of operation. Many of the agreements are the result of sale-leaseback arrangements. Most of the agreements include purchase options and/or renewal options which cover substantially all the economic lives of the properties.

- The following is a summary of obligations under capital and noncancelable operating lease agreements in effect at September 30, 1990 and 1989:

Capital Leases (Millions)	<u>1990</u>	<u>1989</u>
Nuclear fuel ^a		
Assets under capital lease	\$3,233	\$3,046
Accumulated provision for amortization	<u>889</u>	<u>781</u>
Net nuclear fuel	2,344	2,265
General plant		
Assets under capital lease	258	259
Accumulated provision for amortization	<u>18</u>	<u>16</u>
Net general plant	240	243
Total net properties	<u>\$2,584</u>	<u>\$2,508</u>
Obligations under capital leases	<u>\$2,584^b</u>	<u>\$2,508</u>
a. Includes capitalized interest in the amount of \$941 million for 1990 and \$820 million for 1989.		
b. Includes payments due in 1991 of \$4 million, excluding nuclear fuel.		

Future Minimum Lease Payments
(Millions)

<u>Fiscal Period</u>	<u>General Plant Capital Leases^c</u>	<u>Noncancelable Operating Leases</u>
1991	\$ 39	\$ 4
1992	39	4
1993	39	4
1994	40	4
1995	40	3
Thereafter	<u>556</u>	<u>3</u>
Total future minimum lease payments	753	<u>\$22</u>
Less interest element included	<u>513</u>	
Present value of future minimum lease payments	<u>\$240</u>	

c. Payments under nuclear fuel lease, which are based on fuel burns, are estimated to be (in millions) \$197, \$276, \$321, \$369, and \$453 including financing charges, for fiscal years 1991-1995, respectively.

- Amortization of capital leases, including nuclear fuel, for the years ended September 30, 1990, 1989, and 1988 was (in millions) \$110, \$95, and \$21, respectively. Operating expenses for the same respective periods included finance charges for capital leases in the amounts of (in millions) \$65, \$69, and \$46.
- Annual rents for one capital lease range from \$2.7 million to \$51.9 million under the lease terms now in effect. TVA is providing for the levelization of these rentals in its operating expenses over the twenty-five year term of the lease which expires in 2011. The accrued liability for future lease payments is \$123 million at September 30, 1990.
- Operating lease costs charged to operations for the years ended September 30, 1990, 1989, and 1988 were \$7 million, \$9 million, and \$10 million, respectively.

Notes to Financial Statements – Continued

8. *Appropriation investment*—Changes in the appropriation investment during the years ended September 30, 1990, 1989, and 1988 were as follows:

(Millions)	September 30		
	<u>1990</u>	<u>1989</u>	<u>1988</u>
Power Program			
Congressional Appropriations	\$1,419	\$1,419	\$1,419
Transfers of Property from other Federal agencies	24	24	24
Repayments to General Fund of the U.S. Treasury			
Beginning of year	(695)	(675)	(655)
For the year	<u>(20)</u>	<u>(20)</u>	<u>(20)</u>
	<u>(715)</u>	<u>(695)</u>	<u>(675)</u>
Net Appropriation Investment	<u>\$ 728</u>	<u>\$ 748</u>	<u>\$ 768</u>
All Programs			
Congressional appropriations			
Beginning of year	\$4,697	\$4,594	\$4,491
For the year	<u>119</u>	<u>103</u>	<u>103</u>
	4,816	4,697	4,594
Transfers of Property from other Federal agencies			
Beginning of year	62	61	61
For the year	<u>-</u>	<u>1</u>	<u>-</u>
	62	62	61
Repayments to General Fund of the U. S. Treasury			
Beginning of year	(737)	(717)	(697)
For the year	<u>(20)</u>	<u>(20)</u>	<u>(20)</u>
	<u>(757)</u>	<u>(737)</u>	<u>(717)</u>
Net Appropriation Investment	<u>\$4,121</u>	<u>\$4,022</u>	<u>\$3,938</u>

- Congressional appropriations for fiscal year 1991 in the amount of \$135 million have been approved.
- The TVA Act requires the payment to the U.S. Treasury from net power proceeds of a return on the net appropriation investment in power facilities plus repayments of such investment. 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. Under the terms of the repayment schedule, TVA is required to make annual payments of \$20 million until a total of \$1 billion has been repaid. The payments required by the TVA Act may be deferred under certain circumstances for not more than two years.

Notes to Financial Statements – Continued

- Required payments have been made as follows:

(Millions)	<u>Return</u>	<u>Repayment</u>	<u>Total</u>
Total to September 30, 1989	\$1,901	\$695	\$2,596
Year ended September 30, 1990	<u>68</u>	<u>20</u>	<u>88</u>
	<u>\$1,969</u>	<u>\$715</u>	<u>\$2,684</u>

• For fiscal year 1991 the total required payments will be \$84 million: \$64 million as a return on the appropriation investment at the computed average interest rate of 8.843 percent, and \$20 million as a repayment.

• In addition to the payments from net power proceeds, certain nonpower proceeds are paid to the U.S. Treasury under the provisions of the TVA Act. The total payments from nonpower proceeds through fiscal year 1990 amounted to \$42 million.

• 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, as determined by the TVA Board of Directors.

9. *Fuel contract commitments*—Approximately \$2.9 billion in long-term commitments, ranging in terms of one year to five years, have been entered into for the purchase of coal to provide for the fuel requirements of the steam generating plants. In addition, \$291 million is committed under contracts expiring no later than 2014 for uranium and enrichment services.

10. *Borrowing authority*—The TVA Act authorizes TVA to issue bonds, notes, and other evidences of indebtedness up to a total of \$30 billion outstanding at any one time (including defeased debt). 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 8. Issues outstanding (excluding \$4.9 billion of defeased debt) on September 30, 1990, consist of the following:

(Millions)	
Long-term debt	
Held by the public	
Maturing in 1992 – 5.70% and 6.375%	\$ 130
Maturing in 1994 – 8.25%	<u>1,000</u>
	1,130
Maturing 1996 through 1999 - 7.00% to 8.375%	3,750
Maturing 2019 through 2029 - 8.625% to 8.75%	<u>4,500</u>
	<u>9,380</u>
Federal Financing Bank	
Maturing 2001 through 2004 - 7.625% to 9.565%	4,700
Maturing 2012 through 2017 - 7.285% to 12.095%	<u>4,725</u>
	<u>9,425</u>
Total long-term debt	18,805
Less unamortized discount	<u>222</u>
	<u>18,583</u>
Short-term debt	
U.S. Treasury	150
Federal Financing Bank	<u>57</u>
Total short-term debt	<u>207</u>
Total	<u>\$18,790</u>

Notes to Financial Statements - Continued

- The interest rate on short-term debt owed to the U.S. Treasury as of September 30, 1990, was 8.00 percent and the weighted average rate on short-term debt outstanding with the Federal Financing Bank as of September 30, 1990, was 7.73 percent.
- During fiscal years 1990, 1989, and 1988, the maximum amounts of short-term borrowings outstanding (in millions) were \$680, \$1,165, and \$756, respectively, and the average amounts (and weighted average interest rates) of such borrowings were approximately (in millions) \$290 (8.033 percent), \$678 (8.48 percent), and \$604 (6.6 percent), respectively.
- In June 1989, TVA sold its Bond Retirement Fund investments using the proceeds to advance refund outstanding long-term debt totaling \$800 million. In October and November 1989, TVA issued \$8 billion in bonds to the public, using most of the proceeds to advance refund \$6.5 billion of long-term debt of which \$4.9 billion in principal is outstanding at September 30, 1990. These advance refundings were effected through the redemption of a \$400 million debt issue and through insubstance defeasance transactions totaling \$6.1 billion, wherein TVA transferred sufficient funds to establish irrevocable trusts to hold securities which are scheduled to earn interest and mature in amounts sufficient to meet debt service requirements for the aforementioned debt issues. TVA incurred a premium of \$892 million to effect the \$6.5 billion advance refunding, which is being deferred and recognized as an expense ratably through the maturity dates of the new debt issues.
- The borrowings from the public by TVA in fiscal year 1990 represented a departure from its practice since 1974 of borrowing only from the Federal Financing Bank (FFB), excluding advances from the U.S. Treasury. FFB has advised TVA that FFB policy does not permit Federal agencies which access public markets financing also to freely access FFB financing. However, FFB has entered into an agreement, which expires in October 1991 unless extended, under which TVA can make short-term borrowings (maturities of 180 days or less) from the FFB with the total amount of such borrowings not to exceed \$2 billion outstanding at any one time. In addition, the FFB has agreed, for a period ending in October 1993, to continue to make available up to \$2.5 billion in financing for Seven States Energy Corporation, from which TVA leases nuclear fuel. Presently outstanding long-term debt held by FFB is not affected by this change.
- In October 1990, TVA sold investments from the investment fund with a recorded value of \$148 million, using the proceeds to redeem a \$150 million FFB debt issue bearing interest at 12.095 percent, maturing in 2015. The net premium on this advance refunding was not significant.

11. Retirement plan—TVA's retirement plan is a contributory, defined benefit plan covering most full-time employees. The plan is comprised of two funds: Fixed Benefit Fund and Variable Annuity Fund. Plan assets are primarily stocks, bonds, and real estate. TVA contributes to the Fixed Benefit Fund such amounts as are necessary on an actuarial basis to provide assets sufficient to meet the obligations for benefits to be paid to members. A member elects to have the member's current contributions credited to the Fixed Benefit Fund or the Variable Annuity Fund or a portion to each. The pension is based on the member's years (to the nearest month) of creditable service, average base pay for the highest three consecutive years, and the pension rate for the member's age, less a Social Security offset.

- Net pension costs for fiscal years 1990, 1989, and 1988 include the following components:

(Millions)	<u>1990</u>	<u>1989</u>	<u>1988</u>
Service cost	\$ 68	\$ 69	\$ 84
Interest cost on projected benefit obligation	204	194	174
Actual return on assets	224	(414)	(52)
Net amortization and deferral	<u>(430)</u>	<u>225</u>	<u>(117)</u>
Net pension costs	<u>\$ 66</u>	<u>\$ 74</u>	<u>\$ 89</u>

Notes to Financial Statements – Continued

The plan's funded status is as follows:

(Millions)	At September 30	
	1990	1989
Actuarial present value of benefit obligations:		
Vested benefit obligation	\$(2,134)	\$(2,133)
Nonvested benefits	(59)	(58)
Accumulated benefit obligation	(2,193)	(2,191)
Effects of projected future compensation levels	(358)	(328)
Projected benefit obligation	(2,551)	(2,519)
Plan assets at fair value	2,451	2,675
Excess (deficit) of plan assets over projected benefit obligation	(100)	156
Unrecognized net loss (gain)	88	(148)
Unrecognized net obligation being amortized over 15 years beginning October 1, 1987	4	4
Prepaid (accrued) pension cost	\$ (8)	\$ 12

• For determining the actuarial present value of the projected benefit obligation in fiscal years 1990 and 1989, the discount rate of 8.5 percent was used, and the assumed annual rates of increase in future compensation levels for 1990 and 1989 ranged from 4.8 percent to 9.8 percent. The expected long-term rate of return on plan assets for 1990 and 1989 was 9 percent.

12. *Nuclear insurance*—The Price-Anderson Act sets forth an indemnification and limitation of liability plan for the U. S. commercial nuclear industry. Recent amendments to this Act substantially increased the limit of liability from an accident at a U.S. Nuclear Regulatory Commission-licensed reactor to approximately \$7.4 billion.

• All NRC licensees (including TVA) are required to maintain nuclear liability insurance in the amount of \$200 million for each plant site with units licensed to operate. Should the damages from a nuclear accident exceed this liability insurance coverage, each NRC licensee could be retrospectively assessed for each of its units licensed to operate, an amount not to exceed \$63 million per nuclear accident, subject to a maximum annual assessment of \$10 million per unit per accident. In the event the liability from a nuclear accident exceeds the liability limit, the reactor licensee can be assessed an additional 5 percent of the \$63 million assessment per unit. TVA maintains nuclear liability insurance in the amount of \$200 million for each of its two nuclear plant sites with units licensed to operate. In the event of a nuclear accident, TVA's financial responsibility is limited to \$50 million per year per accident.

• In accordance with NRC regulations, TVA carries, at each licensed nuclear plant, insurance of \$1.06 billion for the cost of stabilizing or shutting down a reactor after an accident, decontamination, and property damage. Some of this insurance may require the payment of retrospective premiums of up to a maximum of approximately \$54 million.

13. *Major customers*—Sales of electric power to one Federal agency—principally in the form of demand charges—have amounted to 10 percent of power sales in fiscal years 1988, 1989 and 6.5 percent in 1990. This customer, in accordance with contract provisions, had exercised its right prior to fiscal year 1987, through notices eight years in advance, to reduce the amount of electric power to be purchased. An agreement between TVA and the customer was reached in December 1987 whereby the customer's payment obligations are being satisfied through a series of payments to TVA totaling over \$1.8 billion. The scheduled payments are \$375 million, received in fiscal year 1988, \$465 million in fiscal year 1989, \$311 million in fiscal year 1990, and \$160 million each year from 1991 through 1994, the end of the contract term. TVA will also receive payment for its obligation under the agreement to deliver up to 125 megawatts of power. The reductions in demand have been taken into account in TVA's future supply plans.

• One municipal customer accounts for approximately 10 percent of total power sales revenues and four other municipal customers account for an additional 19 percent of total power sales revenues. Four out of the five distributors, including the largest customer, have contracts without stated expiration dates, and in no event would the contract term be less than ten years. The other distributor has a contract which extends until January 2009 and which cannot be terminated prior to January 1999.

Notes to Financial Statements – Continued

14. *Acid rain legislation*—Congress has recently passed the Clean Air Act Amendments which upon signature by the President would result in significant expenditures for the reduction of sulfur dioxide, nitrogen oxide and possible toxic emissions at several of TVA's coal-fired generating stations. Management is currently evaluating several options for complying with this legislation. Until a compliance plan is developed, TVA cannot estimate the cost of complying with the legislation. TVA expects to recover compliance cost from the ratepayers.

15. *Litigation*—TVA is a party to various civil lawsuits and claims which have arisen in the ordinary course of its business. It is the opinion of TVA counsel that although the outcome of pending litigation cannot be predicted with any certainty, the ultimate outcome should not have a material adverse effect on TVA's financial position.

To the Board of Directors of Tennessee Valley Authority

We have audited the accompanying balance sheets (power program and all programs) of Tennessee Valley Authority as of September 30, 1990 and 1989, and the related statements of operations and retained earnings (power program), net expense and accumulated net expense (nonpower programs) and cash flows (power program and all programs) for each of the three years in the period ended September 30, 1990. These financial statements are the responsibility of Tennessee Valley Authority's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards and Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the power program and all programs of Tennessee Valley Authority as of September 30, 1990 and 1989, and the results of operations of the power program and nonpower programs and cash flows of the power program and all programs for each of the three years in the period ended September 30, 1990, in conformity with generally accepted accounting principles.



Knoxville, Tennessee
November 9, 1990



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902

William F. Malec
Senior Vice President and Chief Financial Officer

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

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

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

A handwritten signature in black ink, appearing to read 'William F. Malec', written over a horizontal line.

William F. Malec
Senior Vice President and Chief Financial Officer

Comparative Statistical and Financial Data for the years ended September 30

	1990	1989	1988	1987	1986
Sales (millions of kilowatt-hours)					
Municipalities and cooperatives	96,748	92,538	91,392	90,813	84,884
Federal agencies	2,336	2,341	2,277	2,270	2,300
Industries	17,134	16,260	15,141	14,530	14,983
Electric utilities	265	453	517	439	426
	116,483	111,592	109,327	108,052	102,593
Operating Revenues (millions of dollars)					
Electric					
Municipalities and cooperatives	4,292	4,109	4,100	3,974	3,487
Federal agencies	413	569	623	608	531
Industries	548	526	513	502	556
Electric utilities	17	21	26	20	18
Other	69	62	60	52	47
	5,339	5,287	5,322	5,156	4,639
Installed Generating Capacity (megawatts)					
Hydro	5,730 ^a	6,056	6,054	6,054	6,034
Coal	17,647	17,647	17,647	17,647	17,647
Nuclear units in service	2,441	2,441	1,221	-	-
Gas turbine	2,510	2,510	2,510	2,510	2,510
	28,328	28,654	27,432	26,211	26,191
System Peak Load (megawatts)					
	24,627	20,638	21,343	19,772	20,424
Percent Gross Generation					
Coal	68%	71%	86%	82%	89%
Hydro	19%	18%	11%	18%	11%
Nuclear	13%	11%	3%	-	-
Fuel Cost Per Kilowatt-hour (mills)					
Coal	13.7	14.1	14.3	14.6	15.2
Nuclear	10.0	10.8	13.6	-	-
Aggregate Fuel Cost Per kWh Net Commercial Generation	13.2	13.7	14.4	14.8	15.5
Revenue Per Kilowatt-hour (mills)^b					
	42.6	42.7	44.7	47.2	44.8
Fuel Data					
Net Commercial Generation (millions of kilowatt-hours)	93,595	92,106	86,278	78,449	84,834
Billion Btu	946,113	925,455	865,876	786,608	845,963
Fuel expense (millions of dollars)	1,233	1,261	1,240	1,163	1,313
Cost Per Million Btu (cents)	130.36	136.26	143.22	147.83	155.26
Net Heat Rate	10,109	10,048	10,036	10,030	9,970

a. Excludes TAPOCO.

b. Excludes DOE settlement payment.