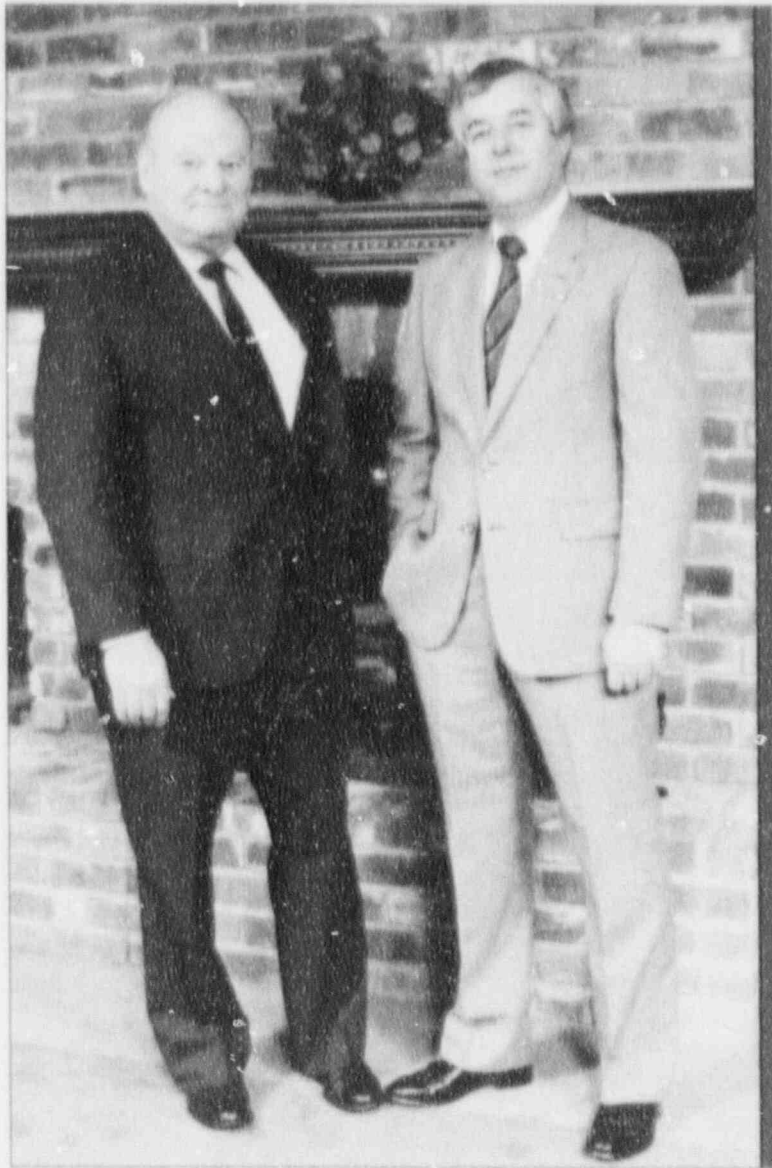


## ABOUT SMEPA

South Mississippi Electric Power Association (SMEPA) is a rural electric generation and transmission cooperative (G&T). As the wholesale power supplier for eleven member-owner distribution cooperatives, South Mississippi Electric Power Association serves as an economical power source for more than 269,000 Mississippians.

### *Contents*

2	Executive Message	21	The Auditors' Report
4	Our Board of Directors	22	The Balance Sheets
6	The 1990 Operating Report	24	Statement of Net Margins and Patronage Capital
16	The Financial Section	25	Statement of Cash Flows
17	1990 Financial Report	26	Notes to Financial Statements
18	The Elements of Cost	31	Member Systems Map and Highlights
19	Comparative Operating Cost	32	Where We Are
20	The Comparative Summary		



W. C. McKamy, Jr., President

Henry Thomas, General Manager

South Mississippi Electric Power Association's commitment to its membership, employees, and the area it serves is evident throughout the organization. Employees with common goals continue to excel individually and collectively in accomplishments in an ever-changing environment.

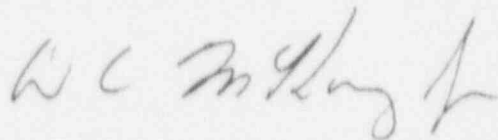
Financially, SMEPA evolved in 1990 into a market of stability. A designed deficit during 1989 was offset as projected, and positive margins existed. More importantly, SMEPA emerged as planned with a strong working capital base which continues to allow internal financing of many projects. This has also allowed a rate reduction for 1991, bringing the total decrease in the cost of wholesale energy to more than 11% since 1987.

Emphasis continues in providing efficiency of operations to our members with mutually beneficial and cost-effective services.

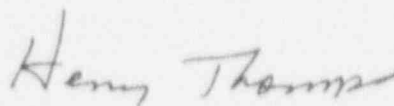
Many challenges will be faced in the future. Legislation pertaining to Clean Air as passed will be met and supported by SMEPA. Other legislative issues will be addressed, and employee involvement will continue to be encouraged.

The success evident at SMEPA is the result of dedication by a unified Board of Directors and a well-qualified group of employees who are committed to ensuring that excellence in service at the lowest possible cost continues into the future.

We are proud to provide this positive report which illustrates the continued success of South Mississippi Electric Power Association and its employees.



W. C. McKamy, Jr., President



Henry Thomas, General Manager

## OUR BOARD OF DIRECTORS



*Left to right, seated:*  
*President—W. C. McKamy, Jr.,*  
*Twin County EPA*  
*Vice President—Nail Jordan,*  
*Singing River EPA*

*Standing:*  
*Secretary-Treasurer—Hollis Alford,*  
*Magnolia EPA*  
*Acting Secretary-Treasurer—W. T. Shous,*  
*General Manager, Pearl River Valley EPA*



*Left to right, standing:*  
*James Humber, Coahoma EPA*  
*Giles Bounds, Manager, Coahoma EPA*  
*Doug Mooney, Coast EPA*  
*Robert J. Occhi, General Manager, Coast EPA*  
*Henry C. Waterer, Jr., Delta EPA*  
*Harry Bonner, General Manager, Delta EPA*

*Seated:*  
*L. G. Pierce, Dixie EPA*  
*J. T. Dudley, Jr., General Manager,*  
*Dixie EPA*  
*Samuel Williams, Manager, Magnolia EPA*



*Left to right, standing:*  
 Kelly Speights, Pearl River Valley EPA  
 Jack Ware, General Manager,  
 Singing River EPA  
 Harlan B. Rogers, Southern Pine EPA  
 Donald Jordan, Manager, Southern Pine EPA  
 Joe Noble, Southwest Mississippi EPA  
 Robert St. John, Manager,  
 Southwest Mississippi EPA

*Seated:*  
 Jasper Bagley, Manager, Twin County EPA  
 D. Hines, Yazoo Valley EPA  
 C. H. Shelton, Manager, Yazoo Valley EPA

## RETIRED MANAGER



*L. R. Parker,  
 Former Manager—  
 Yazoo Valley EPA*

Mr. Parker has had a long and distinguished career of more than forty years in rural electrification. He served as Manager of Yazoo Valley EPA for 37 years and as representative to SMEPA's board for a decade. He retired on March 31, 1990.

## IN MEMORIAM



*Henry Bridgforth,  
 Director—  
 Yazoo Valley EPA*

Mr. Bridgforth represented Yazoo Valley EPA on SMEPA's board for more than five years, retiring in 1989. He had been a member of the Bid Committee. Mr. Bridgforth served on Yazoo Valley EPA's board from January 1978 until his death on August 20, 1990.

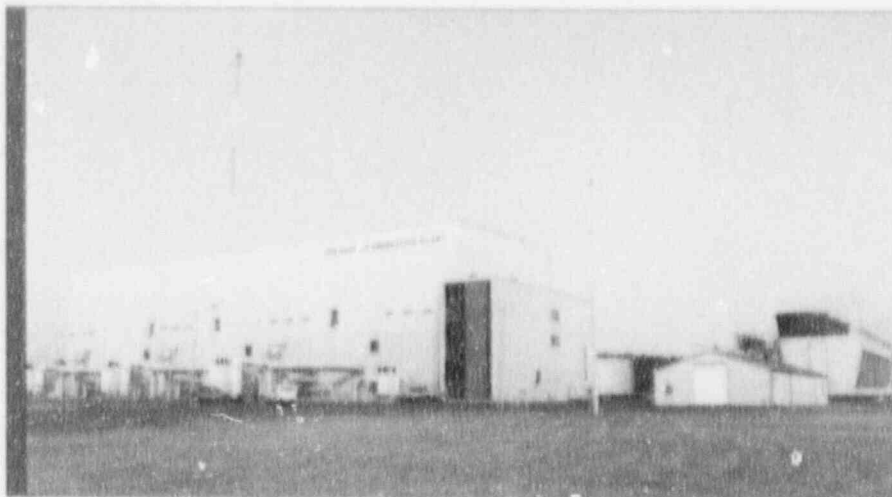
Mr. Bridgforth was a lifelong resident of Yazoo County and was a farmer.

## 1990 OPERATING REPORT

### *Moselle Generating Station*

#### *Moselle, Mississippi*

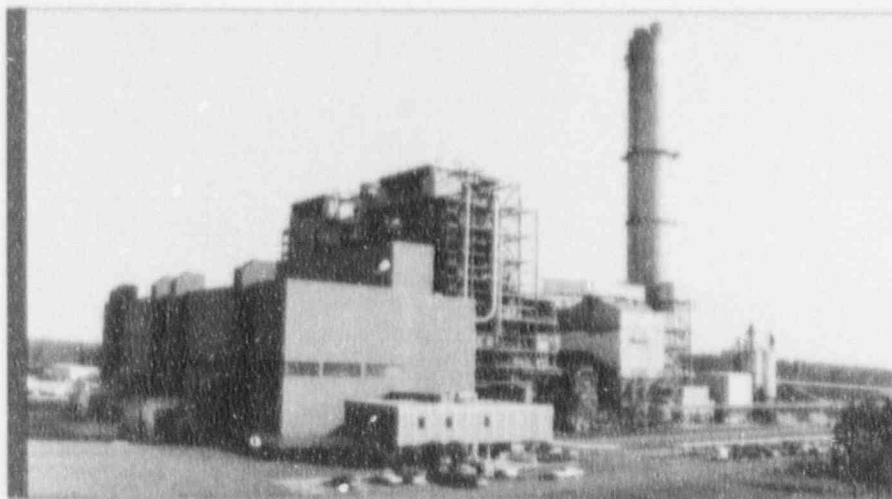
Plant Moselle, completed in 1970, sits adjacent to the Leaf River on 65 acres in Jones County. This dual-fuel plant uses either natural gas or fuel oil and houses three power units, each rated at 59 megawatts. Plant Moselle has the capability of storing 7,000,000 gallons of fuel oil on site.



### *Plant R. D. Morrow, Sr.*

#### *Near Purvis, Mississippi*

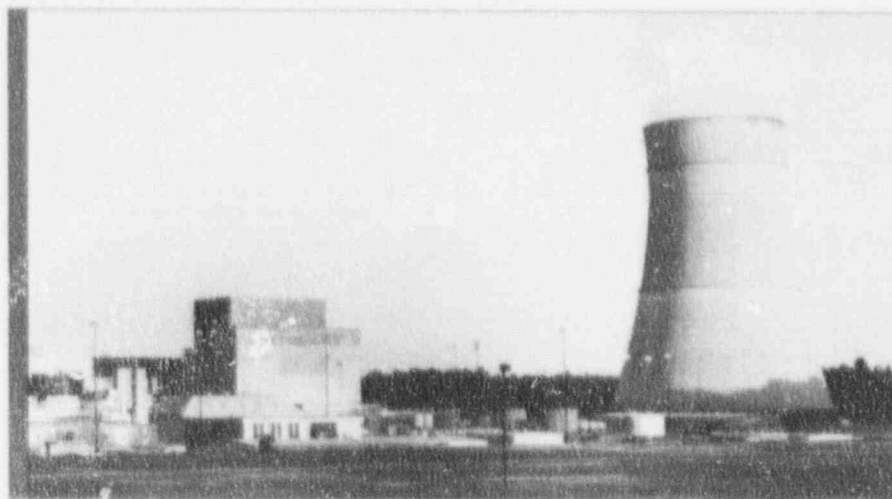
Plant Morrow is SMEPA's largest generating facility. The Plant is located on 884 acres in Lamar County. Completed in 1978, Plant Morrow burns approximately 2,430 tons of bituminous coal every day to generate electricity. Two 200-megawatt power units installed at the coal-fired plant produce a total capacity of 400 megawatts.



### *Grand Gulf Nuclear Station*

#### *Port Gibson, Mississippi*

SMEPA owns a 10% undivided interest in Unit 1, for a generation output of 125 megawatts per hour from that unit.





## PRODUCTION

### *Moselle Generating Station*

During 1990—  
Net Generation: 529,244 MWH  
Natural Gas Used: 6,450,000 MMBTU  
Fuel Oil Used: 152,000 Gallons

The Moselle units continued to play an important part in serving the generation requirements of SMEPA's system. The contribution was especially valuable: while Plant Morrow's Unit 1 was unavailable during the first four months of the year; in serving the new peak demands of August; and during the fall refueling outage at Grand Gulf.

Plant performance goals were more than met as the net heat rate was less than 12,000 Btu/KWH for two months. The best performance was achieved in November when the net heat rate decreased to 11,862 Btu/KWH.

Inspection and repair procedures were completed on two of the station's six boiler feedwater pumps.

The plant's external structures and equipment were painted

under a contract arrangement to preserve the appearance and integrity of the facility.

Planned structural and equipment repairs and replacements were completed on the cooling towers by plant personnel.

Highlights of other 1990 preventive maintenance measures and upgrades included:

- Replacement of No. 5 feed-water heater on Unit 3
- Instrumentation and controls upgrade
- Replacement of sequential events monitoring equipment
- Replacement of cold-end heat transfer elements in Unit 2's air preheater
- Installation of fuel-flow metering equipment on each of the three units

### *Plant R. D. Morrow, Sr.*

During 1990—  
Net Generation: 1,883,439 MWH (the highest annual production since 1986)  
Coal usage: 786,010 tons

As the year began, Unit 1 remained unavailable as repair and inspection procedures continued on the turbine and generator. When reassembly was completed in May, Unit 1 joined Unit 2 in providing reliable production to meet system

demand requirements. Both units operated continuously throughout the summer load season and contributed greatly when a record peak demand was established on August 29 at 862 MW.

A goal for 1990 was to maintain the annual average net heat rate below 10,600 Btu/KWH. Thanks to the dedicated efforts of the plant staff, the goal was met in excellent fashion with an actual heat rate of 10,400 Btu/KWH. Boiler efficiency averaged 72% for the year, which was 1% better than the established goal.

In August 1990, details were finalized for SMEPA to secure 110 aluminum-bodied railcars on an exchange basis to replace the existing fleet of steel-bodied cars which transport coal to Plant Morrow. Delivery of the new equipment is expected to be completed by January 15, 1991.

Freight rate concessions were negotiated with the Norfolk-Southern Railroad in advance of placing the order for the new aluminum railcars. Projected transportation cost savings, coupled with anticipated maintenance cost savings, provided

sufficient economic benefits for SMEPA to justify replacing the original fleet.

Upgrades and preventive maintenance measures continued throughout 1990.

Based upon recommendations of an extensive fuel-burning system study, modifications were initiated on Unit 1, and additional action is planned for both units in 1991.

As recommended, the burner deck of Unit 1 boiler received new burner nozzles and refurbished burner pantlegs diverter chutes. Other fuel-burning modifications were made to the bypass dampers on the three coal pulverizers serving Unit 1 and to four coal classifiers on Unit 1.

The study also identified items which could be changed to improve fuel-burning efficiency and to reduce the amount of unburned carbon in fly ash. With implementation of the recommended changes, the plant heat rate is expected to improve; and the quality of the fly ash resulting from burning the coal should be enhanced, thus improving marketability.

Unit 1 precipitator received new automatic voltage controls, new emitting electrodes, and new microprocessor-based rapper controls. These upgrades allow greater flexibility in precipitator operation which will result in more efficient energy use and better emissions control performance.

The first year of a planned four-year contract painting project began with the painting of the dewatering building and dewatering bins.

Cooling tower upgrade consisted of new drift eliminators being installed during the spring. The new devices allow less water to "drift" from the cooling tower stacks and permit the same amount of cooling with less forced air flow, resulting in a reduced horsepower requirement to operate the fans.

Highlights of 1990 upgrades and preventive maintenance measures were: •Installation of a new emission report computer which summarizes data from emissions monitors for opacity,  $\text{SO}_2$  and  $\text{NO}_x$ . •Modification of Unit 1 fly ash removal system to use a vacuum blower in place of

the existing fly ash hydroveyor exhausters. •Installation of a new above-ground pipeline for the ash-conveying systems.

### *Grand Gulf Nuclear Station*

During 1993—  
Net generation: 755,723 MWH

Grand Gulf operated continuously for the first 204 days of the year, which is a new record for the facility.

The planned 46-day fourth refueling outage started on September 30 and was completed almost twelve days behind schedule. Overall, the work scope was larger in this outage than in the previous one, and some major work activities were performed for the first time. The refueling outage was completed within budget.

The plant staff met the established 1990 goals in five of the "Top Ten Performance Indicators" used by the nuclear industry. The goals met were: lost-time accident rate; volume of low-level radioactive waste generated; fuel reliability; safety system performance; and reactor water chemistry.



### *Benndale and Paulding*

During 1990—  
Benndale generation: 3403 MWH  
Paulding generation: 3177 MWH

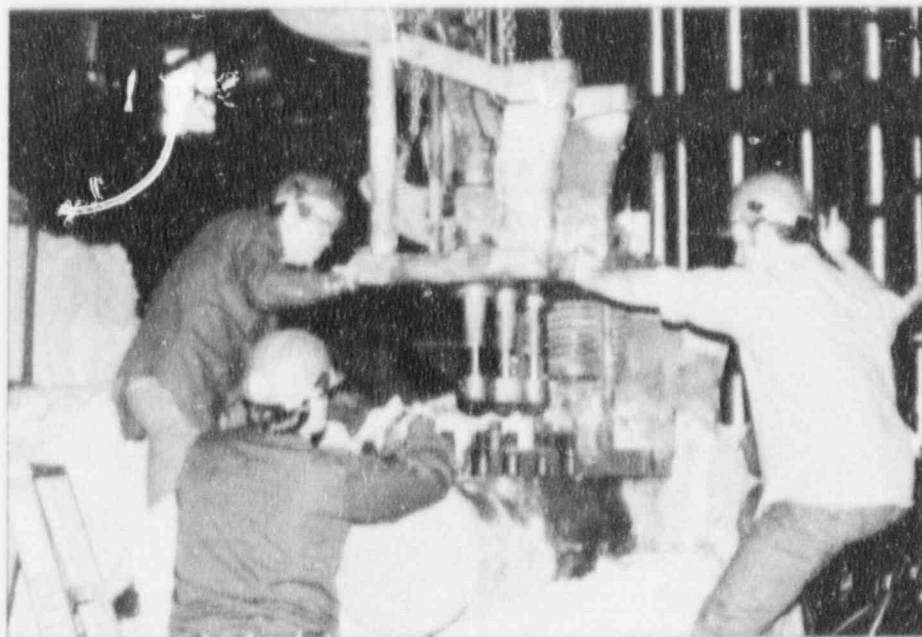
These remotely located combustion turbines were operated as required for peak load support and during emergencies when additional generation was essential for brief periods of time.

### *Kentucky Coal Property*

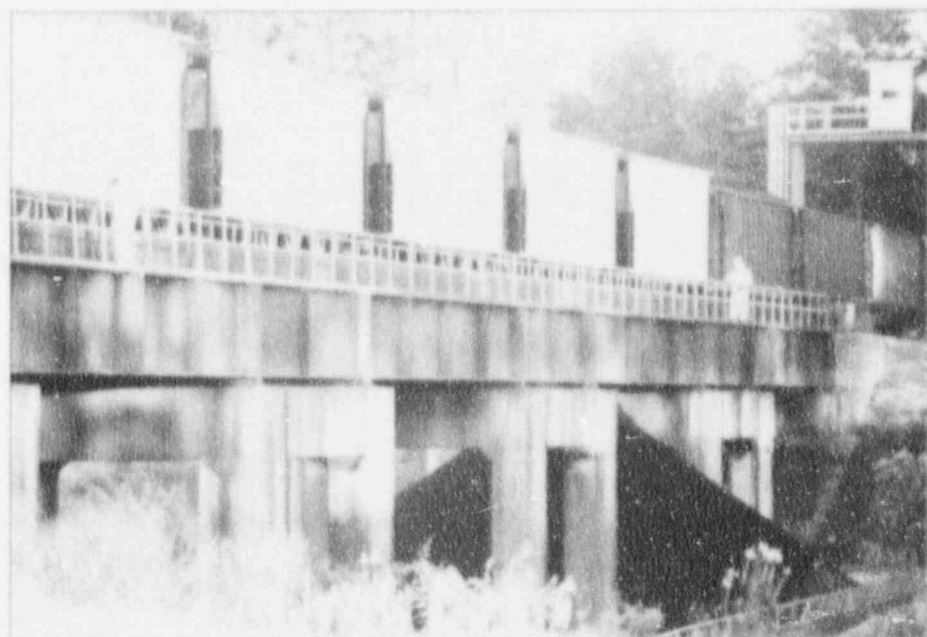
During 1990—  
Production: 694,000 tons

Andalex Resources continued to develop the coal reserves on SMEPA's property in eastern Kentucky. Mining operations included surface and deep mines.

Two separate sublease arrangements were initiated on certain isolated tracts of SMEPA's property. SMEPA and Andalex will share equally in royalty payments as Great Western Coal, Inc. and Shamrock Coal Company produce coal from areas which otherwise might not have been developed. Over the term of the two agreements, SMEPA expects to receive substantial returns in the form of royalty payments.



Plant Meselle Mechanics Charlie Grantham, Jimmy Tisdale, and Keith Rittenhouse replace the control valves of the Unit 3 turbine-generator after completing maintenance procedures.



As coal is unloaded from SMEPA's new aluminum-bodied cars, Morrow employees Odis Waters and Billy Perkins stand on the trestle, ready to assist if necessary. Each car holds 106 tons of coal, as compared to the 100-ton capacity per steel-bodied car.

Marketing the property's timber began in 1989 and was successfully continued throughout 1990.

SMEPA executed an oil and gas lease for the exploration, drilling, and production of the oil and gas reserves on the Kentucky property.

## CORPORATE PLANNING AND OPERATIONS

### *Control Center*

1990 was an excellent year in the purchase and sale of economy energy used to offset more expensive fuel in SMEPA's generating units. These purchases/sales allowed SMEPA to reduce energy costs to all members. During the year, SMEPA renegotiated a contract with Cajun Electric Cooperative to gain more favorable conditions for the operation of SMEPA's system.

In addition, an agreement was signed for the purchase of 50 MW of around-the-clock energy beginning in late 1990 and continuing throughout 1991. This energy will be bought at

an extremely favorable price to SMEPA, thus reducing the average cost of power delivered to its eleven member systems.

SMEPA is continuously developing a plan for reducing future generation requirements. As part of that plan, SMEPA assisted a member system in signing a favorable contract with a large paper mill to sell off-peak power and stand-by service in return for reducing South Mississippi's responsibility for generation during peak hours. This should allow SMEPA to postpone future generation to the advantage of all members.

SMEPA again maintained its position on the North American Electric Reliability Council's (NERC's) Control Performance Honor Roll, being listed as the third best in the southeastern United States and ninth best in all of North America.

### *Marketing*

SMEPA worked closely with its member systems to promote the use of high-efficiency electric heat pumps in new and existing homes. Heat pump training programs were conducted for

representatives from member cooperatives, with excellent member response. This training will allow these representatives to work with homeowners in determining the best way to meet needs in the home and to promote the use of heat pumps.

SMEPA's heat pump incentive program was promoted in 1990 and brought about a substantial increase in response. The Association's Marketing Specialist produced a professional quality heat pump brochure for the member systems to use for promotional purposes.

### *Electronics Support*

The Electronics group worked very closely with Engineering in the installation and check-out of significant microwave additions for the Benndale Substation. In addition, they replaced Remote Terminal Units at seven transmission stations with upgraded hardware and software. This will allow better data transfer from the field back to the Control Center, thus assuring more efficient operation of the transmission system.

### *Billing*

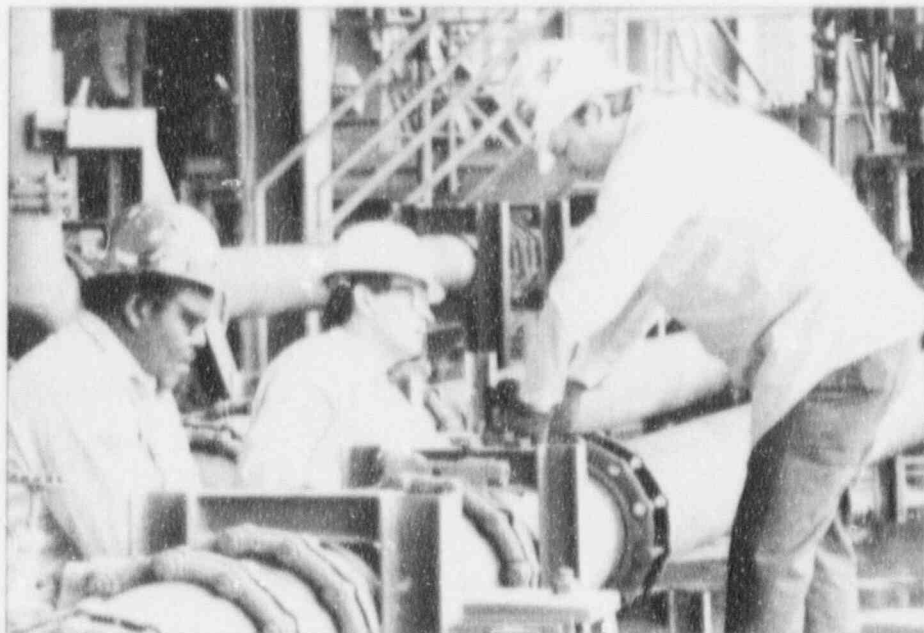
The billing group was able to convert SMEPA's billing program to a new translation system ahead of schedule. The new system will allow better analysis of metering data for SMEPA and the member cooperatives.

During the year, a Power Supply Task Force, consisting of several key SMEPA employees, was organized to assess future generation needs. This group will study intermediate- and long-term needs and make recommendations to management as to how future generation needs should be met and the timing of additions to meet those needs.

## **ENGINEERING, CONSTRUCTION, AND MAINTENANCE**

### *Planning and Protection*

SMEPA completed justification for a second Alabama Electric Cooperative (AEC)/SMEPA 230-kV intertie and obtained REA approval for the project. This will increase transmission reliability in the southeastern



Plant Morrow Mechanics Raymond Jordan, Bobby Morrow, and Robert Hornsby complete maintenance procedures on a section of ash system piping. Approximately 3,100 feet of piping is used to transport fly ash from the electrostatic precipitators to storage silos.



SMEPA's line crews cut in two deadend structures on the Borg-Warner 115-kV transmission line in Hancock County. This line will provide power to the Calgon Plant which will be served by Coast EPA.

part of the state. The tie firms the existing one and provides another wheeling path to AEC.

The continued installation of electronic meters was recommended after the electronic meter pilot program. SMEPA is able to remotely access these devices, eliminating the need for routine meter reading.

To take full advantage of the electronic meters, dial-up communications must exist at each meter site. Cellular phone installations are preferred and will save SMEPA phone company protection equipment charges; these savings will allow for recovery of installation costs within the first year of operation. Initial installations of electronic meters will follow areas where cellular service is available.

### **Power Engineering**

Three 3-kV autotransformers were added to existing substations at Lumberton and Homewood to relieve autotransformer overloading brought about by load growth.

Supervisory Control and Data Acquisition Remote Terminal

Units were replaced at seven transmission substations through a coordinated effort of Design Engineering and Electronics. The existing Harris remotes were replaced with new Westronics units due to obsolescence.

A study of SMEPA's telecommunication facilities will investigate the current adequacy of existing microwave, power line carrier, and telephone data systems; review requirements associated with the System Planning Guide; and make recommendations for installation or replacement of facilities. The final report will outline projects required in the next five years and will address the expansion of the telecommunication system over the next twenty years.

Additions to SMEPA's Taylorsville Switching Station included a circuit breaker, surge arresters, and protective relaying to provide faster switching and line isolation. Member cooperatives Southern Pine and Dixie will benefit from the construction.

### **System Construction**

Contractor crews constructed the Silver Creek to Georgia Pacific-

Monticello 115-kV transmission line to provide loop service to Southern Pine EPA's GP-Monticello Substation. The substation services Georgia-Pacific Paper Mill located near Monticello, Mississippi.

1990 system construction also included upgrading the 115-kV transmission line which services the International Paper Mill near Redwood.

### **Line Maintenance**

The annual right-of-way reclearing program involved the reclearing of 327 miles of transmission line right-of-way. A total of 3,054 danger trees were recleared on 59 miles of line.

Ground-line inspection of 176 miles of transmission line resulted in the treatment of 1,915 poles for decay, insect damage, or mechanical damage. The inspection resulted in a low overall rejection rate of .46%.

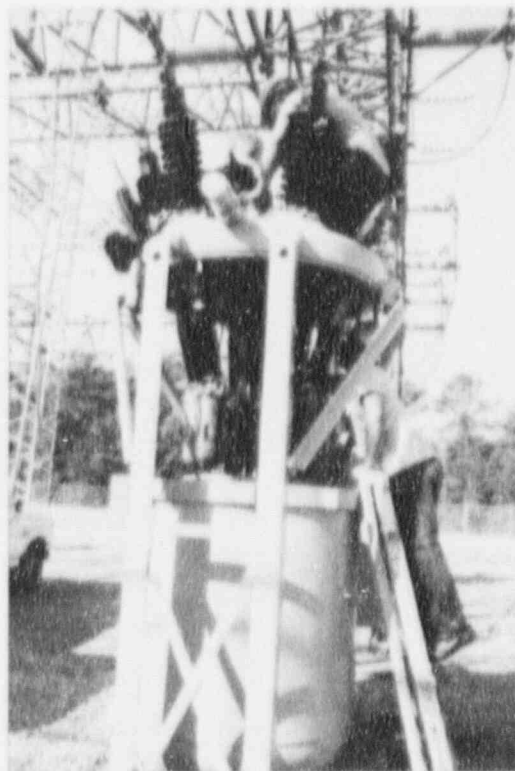
Aerial line inspections were performed on SMEPA's 1,357 miles of transmission lines on a bimonthly basis.

### *Substation Maintenance*

Substation personnel recalibrated and tested all metering equipment in the system at 174 metering locations. More than 1,430 relays—out of 2,516—were calibrated and tested.

Infrared surveys were completed on substation facilities belonging to SMEPA, Dixie EPA, Southwest Mississippi EPA, Yazoo Valley EPA, Pearl River Valley EPA, and Twin County EPA.

Major inspection and repair of all 69-kV and 161-kV oil circuit breakers were completed during 1990.



Jesse Fortis, Terry Clark, and Kenny Casanova, Substation Maintenance Technicians, perform preventive maintenance on 69-kV oil circuit breakers. The tank has been dropped to allow visual inspection of contacts and other mechanisms.

### *Land Department*

During 1990, the Land Department:

- Assisted in the lease of SMEPA's Kentucky property securing a better per-acre amount than in the past
- Assisted in negotiating first-time timber sales
- Marked and acquired 3,000 danger trees to be cut on nine lines
- Acquired the substation site at Benndale for the 230/161-kV



Larry Griffin, Land Supervisor, and Linda Hollimon, Land Agent, discuss the possible effects of a power line on a parcel of property as they look at the planned profile sheets.

AEC/SMEPA intertie. Property appraisal for the right-of-way was begun, with acquisition beginning the first quarter of 1991.

- Acquired an option for an industrial site for Southern Hens. This site consists of 100 acres and joins SMEPA's Plant Moselle site. Southern Hens will employ approximately 150 people next year. Initially, this will be a 5-MW load for Dixie EPA.

## HUMAN RESOURCES AND DEVELOPMENT

### Training

During 1990, increased emphasis was placed on employee development through the design and introduction of formal training programs.

Training classes were conducted by a local community college in welding and air-conditioning repair for Mechanical and Electrical Maintenance employees at Plant Morrow.

Formal training programs were purchased and implemented within the Plant Operations and Substation Maintenance sections.

Supervisory training programs were introduced which included employee relations seminars for more than 20 supervisors. In addition, in-house performance evaluation training was conducted for all supervisory personnel.

Cross-training programs were initiated that encourage employee development and improve operating efficiency.

### Transportation

Fleet maintenance and procurement programs were fine-tuned, allowing for computerization of replacement and maintenance schedules and compliance with new Department of Transportation requirements.

The Association's fleet currently consists of 56 pieces of rolling stock vehicles and 26 pieces of off-road equipment.

### Facilities

During the year, major office renovations were completed at Plant Morrow. This facility upgrade was the first significant office renovation at the Plant since its construction in 1978.

A systematic upgrade of offices at the headquarters facility continued in 1990, upgrading the office scheme while maximizing space utilization.

### Personnel Administration

The hourly employee wage plan was revised in 1990 to further strengthen employee development, redefine performance standards, and add cross-training requirements.

SMEPA adopted a loan provision in its SelectRE Pension Plan in July 1990 which allows employees to borrow money against their savings accounts at competitive interest rates. The Association also lowered normal retirement age for employees from age 65 to 62.

New employee relations programs were introduced during the year which focus on improved internal communications via Association publications, departmental briefings, and expanded orientation programs.

### Safety

One of SMEPA's most significant achievements in 1990 occurred in the area of safety. Production employees at Plants



Morrow and Moselle achieved a record of working more than 500,000 hours without a lost-time accident in November 1990. This record illustrates the degree of employee commitment to safety within the organization.

### *Information Services*

High-quality, low-cost internal and external publications continued to be produced by SMEPA during the year.

In early 1990, publication of *This Week* began. Its purpose is to inform employees, on a biweekly basis, of Association and industry events.

A cookbook, *Cooking with SMEPA*, was also published which included recipes from South Mississippi employees. The cookbooks were distributed to employees and member systems.

An employee orientation video was produced in April 1990 to inform new and existing employees of the fringe benefits provided by the Association.

South Mississippi Electric continued to provide publication and video support to member systems through its desktop publishing and production facilities.



The outside appearance of Headquarters is immaculately kept by Groundskeeper John Stuart. The site consists of more than 15 acres.



All Plant Operators must go through extensive training. Here, Buddy Gardner, Job Training and Safety Director, points to Unit 2's boiler as he instructs Dennis Prime, Teddy Brown, and Scotty Friend during Operator V training at Plant Morrow.

## FINANCIAL SECTION

### *Index to Financial Section*

17	1990 Financial Report	22	The Balance Sheets
18	The Elements of Cost	24	Statement of Net Margins and Patronage Capital
19	Comparative Operating Cost	25	Statement of Cash Flows
20	The Comparative Summary	26	Notes to Financial Statements
21	The Auditors' Report		



Month-end closing requires a group effort to ensure that all deadlines are met. In addition to preparing financial statements for review by our Board of Directors, disbursement of accounts payable and payroll checks must be completed in a timely manner; and all related paperwork must be filed for permanent recordkeeping. Accounting Clerks Annette Smeltzer, Mary Jones, and Libby Broome double-check budget printouts before they go to department managers.

## 1990 FINANCIAL REPORT

### *Record Net Margins*

South Mississippi Electric Power Association recorded a record net margin of \$8,702,243 for the year ended December 31, 1990, on electric energy sales of \$264,325,407. Increased energy sales and a 12.2% increase in on-system demand to 862 megawatts, coupled with reductions in fuel and purchased power costs, contributed significantly to the high net margin.

### *Sales of Electricity*

Revenues from sales of electricity to SMEPA Members increased \$10,237,091 or 4.2% from the previous year. Electric energy sold to members totaled 5,167,155 megawatt hours, a 4.5% increase over 1989 sales. The average cost of power sold to SMEPA's members declined slightly from 48.85 mills per kilowatt hour in 1989 to 48.74 mills per kilowatt hour in 1990. This was the third successive annual decrease in the average cost of power sold to members.

Sales of electricity to non-member Alabama Electric Cooperative in the second full year of a contract entered into in 1988 produced gross revenues of \$12,465,421, 28% higher than the previous year. This reflected a 40% increase in the energy sold under the contract as sales rose to 444,355 megawatt hours.

### *Equity Increases*

The Association's equity increased \$8,702,243 to approximately \$27,050,000 or 3.54% of total assets. After the loss sustained in 1989 as the result of the initial write-off of \$10,130,000 (10%) of the abandoned Grand Gulf Nuclear Station (GGNS) Unit II, which reduced

equity to 2.35% of assets, the increase in equity resumed a gradual upward trend established over the last eight years.

### *TIER and DSC*

The Times Interest Earned Ratio (TIER) for 1990 was 1.13 and the Debt Service Coverage (DSC) was 1.25. Both of these ratios exceeded the 1.0 level required by mortgage covenants.

### *Liquidity*

SMEPA's liquidity continued to improve as forecast with a cash and temporary investment level reaching approximately \$45,812,000 at the end of 1990 compared to approximately \$25,350,000 (as adjusted for a fourth quarter 1989 EFB debt service payment January 2, 1990) at December 31, 1989. Again during 1990, the \$25,000,000 line of credit maintained with CFC was not utilized except for the convenience of making debt service payments on 1985 G series pollution control bonds.

### *Long-Term Debt*

During 1990, the Association received loan advances totaling \$5,925,000. \$3,028,000 was received under REA-guaranteed Federal Financing Bank loans, \$2,373,000 under REA insured loans, and \$524,000 as the initial advance under a concurrent loan of \$2,306,122, the first such loan made to the Association by CFC. The advances reimbursed amounts spent for transmission capital additions and improvements.

Total long-term debt decreased from \$727,456,619 at year-end 1989 to \$719,276,610 at December 31,

1990. The overall rate of 8.97% on total long-term debt was virtually unchanged from December 31, 1989's average rate of 8.98%.

### *GGNS II Abandonment Cost*

Following the initial write-off in 1989 of approximately 10% of SMEPA's share of the abandonment cost of Grand Gulf Nuclear Station Unit II, approximately \$2,398,000 of the remaining un-amortized abandonment cost was expensed in 1990. The unamortized balance of the abandonment cost at December 31, 1990, was \$87,983,865. Amortization will continue on a predetermined basis which has been approved by all necessary parties. Amortization expense in 1991 will be approximately \$2,526,000 and will range upward to approximately \$4,520,000 in 2016, the final year of amortization.

### *GGNS I Decommissioning*

An external tax-qualified grantor trust was established in 1990 to provide for decommissioning expenses of GGNS I. Decommissioning is projected to begin in the year 2022. In compliance with Nuclear Regulatory Commission (NRC) regulations, copies of the trust and underlying studies were filed with the NRC in July 1990. The trust was funded on January 2, 1991, with a contribution of approximately \$1,127,000 which represented amounts collected through wholesale power rates since commercial operation of GGNS I in July 1985 and interest earnings on such collected funds. The filed funding plan, which is subject to periodic revision, calls for an annual funding level of \$239,000 (exclusive of interest earnings on trust assets).

# THE ELEMENTS OF COST

## I. SMEPA's Own Generation & Transmission System

Cost of Fuel Burned in SMEPA's Plants - ¢/MMBTU

1986 1987 1988 1989 1990

195.27 176.38 181.64 176.72 175.77

Production Costs and Purchased Power/

Interchanged Power - Mills/kWh

27.66 25.49 25.27 25.94 26.02

Transmission O&M - Mills/kWh

2.50 2.77 2.46 2.38 2.38

A&G Expense - Mills/kWh

1.14 1.25 1.09 1.12 1.10

Depreciation and Amortization - Mills/kWh

4.79 6.16 5.41 5.08 5.39

Interest - Mills/kWh

21.23 20.81 17.80 16.50 15.22

Taxes and Other - Mills/kWh

.88 .41 .22 2.77 .22

Total — Mills/kWh of Sales

58.20 56.89 52.25 53.79 50.31

## II. Borderline System

Purchased Power/Interchanged Power - Mills/kWh

40.12 38.91 34.34 34.85 33.08

Depreciation and Amortization - Mills/kWh

.02 .02 .02 .02 .02

Interest - Mills/kWh

.03 .05 .03 .03 .03

Total — Mills/kWh of Sales

40.17 38.98 34.39 34.90 33.13

## III. Total System

Production Costs and Purchased Power/

Interchanged Power - Mills/kWh

31.08 29.23 27.59 28.14 27.72

Transmission O&M - Mills/kWh

1.81 2.00 1.83 1.79 1.81

A&G Expense - Mills/kWh

.83 .90 .81 .85 .83

Depreciation and Amortization - Mills/kWh

3.48 4.46 4.03 3.83 4.10

Interest - Mills/kWh

15.41 15.04 13.25 12.43 11.56

Taxes and Other - Mills/kWh

.64 .29 .17 2.10 .16

Total <sup>(A)</sup> — Mills/kWh of Sales

53.25 <sup>(B)</sup> 51.92 47.68 49.14 46.18

(A) Excludes Kentucky coal operations.

(B) Extraordinary item excluded.

## COMPARATIVE OPERATING COST

	1986	1987	1988	1989	1990
<b>REVENUE</b>					
Sales of Energy	\$225,201,107	\$231,025,124	\$237,797,763	\$251,362,947	\$264,325,407
Other	249,449	138,691	(230,848)	(474,686)	(209,843)
<i>Total Revenue</i>	<i>225,450,556</i>	<i>231,163,815</i>	<i>237,566,915</i>	<i>250,888,261</i>	<i>264,115,564</i>
<b>EXPENSE</b>					
Operation Expense:					
Production-Fuel Cost	57,970,573	57,821,531	62,232,299	62,868,651	60,782,368
Other Production Expenses	11,324,392	10,270,142	11,138,366	12,241,178	13,201,932
Purchased Power	60,107,447	53,892,164	57,526,467	66,361,893	74,296,846
Transmission	6,912,131	7,269,310	7,454,432	7,721,419	8,458,919
Customer Accounts	53,964	56,447	40,144	41,798	40,185
Selling			11,822	95,612	83,529
Administrative & General	3,211,115	3,468,286	3,390,732	3,850,741	3,980,047
<i>Total Operation Expense</i>	<i>139,579,622</i>	<i>132,477,880</i>	<i>141,793,962</i>	<i>153,181,292</i>	<i>160,843,826</i>
Maintenance Expense:					
Production	6,579,862	6,525,996	4,872,231	6,641,474	7,268,466
Transmission	1,030,327	1,509,539	1,553,780	1,721,705	1,696,906
General Plant	358,880	435,135	525,626	470,433	561,611
<i>Total Maintenance Expense</i>	<i>7,969,119</i>	<i>8,468,670</i>	<i>6,951,637</i>	<i>8,833,612</i>	<i>9,526,983</i>
Depreciation	15,233,182	19,559,144	19,846,754	19,782,095	22,984,653
Taxes	649,579	650,720	754,384	765,595	836,436
Interest Expense (Net) and Other Deductions	61,870,198	66,902,644	65,585,509	76,446,250 <sup>(A)</sup>	65,274,502
<i>Total Expense</i>	<i>225,301,700</i>	<i>228,059,058</i>	<i>234,932,246</i>	<i>259,008,844</i>	<i>259,466,400</i>
<b>OPERATING MARGINS</b>	<b>148,856</b>	<b>3,104,757</b>	<b>2,634,669</b>	<b>(8,120,583)</b>	<b>4,649,164</b>
<b>NON-OPERATING MARGINS</b>	<b>2,026,816</b>	<b>2,043,929</b>	<b>2,221,756</b>	<b>3,915,270</b>	<b>4,053,079</b>
<b>NET MARGINS BEFORE EXTRAORDINARY ITEM</b>	<b>2,175,672</b>	<b>5,148,686</b>	<b>4,856,425</b>	<b>(4,205,313)</b>	<b>8,702,243</b>
EXTRAORDINARY ITEM <sup>(B)</sup>	2,074,712				
<b>NET MARGINS</b>	<b>\$ 108,960</b>	<b>\$ 5,148,686</b>	<b>\$ 4,856,425</b>	<b>\$(4,205,313)</b>	<b>\$8,702,243</b>

(A) Write-off of unrecoverable expenses upon abandonment of CGNS Unit II is included in "Other Deductions" (\$10,130,000).

(B) Net loss on early extinguishment of debt.

## THE COMPARATIVE SUMMARY

	1986	1987	1988	1989	1990
<i>ENERGY SOURCES - MWh</i>					
Generated:					
Steam	2,686,598	2,953,615	3,135,747	3,218,046	3,168,406
Other Generation	1,910	1,322	1,595	348	3,584
	2,688,508	2,954,937	3,137,342	3,218,394	3,171,990
Purchased:					
Direct Purchase	519,003	298,487	562,736	726,824	982,926
Borderline - (SEPA)	61,120	72,098	60,346	87,190	106,648
	580,123	370,585	623,082	814,014	1,089,574
Interchanged Power - (Net)	1,200,497	1,163,930	1,263,398	1,345,741	1,457,712
<i>Total Energy Sources - MWh</i>	<i>4,469,128</i>	<i>4,489,452</i>	<i>5,023,822</i>	<i>5,378,149</i>	<i>5,719,276</i>

### SALES - MWh

Southwest Mississippi EPA	290,948	287,278	304,212	329,528	337,582
Dixie EPA	413,306	400,435	411,036	425,274	436,878
Pearl River Valley EPA	415,442	410,533	414,742	427,557	440,644
Singing River EPA	710,062	716,158	738,911	758,895	786,146
Southern Pine EPA	911,339	946,401	982,333	1,128,945	1,183,249
Magnolia EPA	276,749	301,036	337,915	369,027	378,111
Coast EPA	630,812	645,410	673,761	701,440	731,342
Yazoo Valley EPA	123,316	118,094	203,598	201,468	201,657
Coahoma EPA	81,165	83,143	90,108	86,583	88,763
Delta EPA	297,388	305,681	334,935	332,986	367,305
Twin County EPA	162,473	169,734	187,272	184,609	215,478
Alabama Electric Cooperative	62,285	3,015	239,851	316,902	444,355
Southeastern Power Administration	—	—	3,416	—	—
<i>Total Sales - MWh</i>	<i>4,375,285</i>	<i>4,386,918</i>	<i>4,922,090</i>	<i>5,263,214</i>	<i>5,611,510</i>

### TOTAL SYSTEM DEMAND - kW

	1,211,133	1,067,395	1,248,607	1,290,464	1,448,259
--	-----------	-----------	-----------	-----------	-----------



## THE AUDITORS' REPORT

*Financial Statements and  
Independent Auditors' Report  
of Deloitte and Touche*

Board of Directors  
South Mississippi Electric Power Association  
Hattiesburg, Mississippi

We have audited the accompanying balance sheets of South Mississippi Electric Power Association as of December 31, 1990 and 1989, and the related statements of net margins and patronage capital and cash flows for the years then ended. These financial statements are the responsibility of the Association'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. 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, such financial statements present fairly, in all material respects, the financial position of South Mississippi Electric Power Association as of December 31, 1990 and 1989, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

*Deloitte + Touche*

Jackson, Mississippi  
February 8, 1991

## THE BALANCE SHEETS

	December 31,	
	1990	1989
<b>ASSETS</b>		
<i>ELECTRIC UTILITY PLANT (Notes 1a, 1b, 1c, 2, and 3)</i>		
In service	\$ 726,048,283	\$ 713,896,636
Construction work in process	10,468,466	13,937,773
	736,516,749	727,834,429
Less allowance for depreciation	169,891,336	147,406,120
	566,625,413	580,428,309
<i>OTHER ASSETS AND INVESTMENTS</i>		
Unrecovered plant cost (Note 3)	87,983,865	91,179,513
Investments in associated organizations (Note 4)	11,342,874	11,307,719
Debt service reserve for pollution control bonds	4,633,838	4,453,427
Other noncurrent assets	3,670	45,912
	103,964,247	106,986,571
<i>CURRENT ASSETS</i>		
General fund cash and temporary cash equivalent investments (Note 1)	38,184,190	41,755,331
Other invested funds	7,627,726	1,964
Accounts receivable (including receivables from members of approximately \$19,762,000 [1990] and \$22,390,000 [1989]; no allowance for doubtful accounts deemed necessary)	21,448,134	24,403,484
Inventories (Note 1d)		
Coal	8,547,128	8,976,026
Other fuel	777,429	842,098
Material and supplies	13,024,704	12,340,654
	22,349,261	22,158,778
Other	2,197,206	1,954,577
	91,806,517	90,274,134
<i>DEFERRED CHARGES (Note 1e)</i>	1,549,398	1,581,114
<b>TOTAL ASSETS</b>	<b>\$ 763,945,575</b>	<b>\$ 779,270,128</b>

See "Notes to Financial Statements"

### THE BALANCE SHEETS — CONTINUED

# STATEMENT OF NET MARGINS AND PATRONAGE CAPITAL

	Years Ended December 31,	
	1990	1989
<i>OPERATING REVENUE</i>		
Electric energy revenue	\$ 264,321	257,827
Other— net	(209,833)	(41,761)
	<u>264,771</u>	<u>216,066</u>
<i>OPERATING EXPENSES</i>		
Operation expenses:		
Fuel	60,782,368	54,704,000
Production	13,201,932	12,751,000
Purchased Power	74,296,846	66,301,000
Transmission	8,458,919	7,721,419
Administrative and general	4,103,761	3,988,151
	<u>160,843,826</u>	<u>153,181,292</u>
Maintenance expenses:		
Production	7,268,466	6,641,474
Transmission	1,696,906	1,721,705
General	561,611	470,433
	<u>9,526,983</u>	<u>8,833,612</u>
Depreciation and amortization (Notes 1a and 1b)	22,984,653	19,782,095
Taxes	836,436	765,595
	<u>194,191,898</u>	<u>182,562,594</u>
<i>OPERATING MARGINS BEFORE INTEREST AND OTHER DEDUCTIONS</i>	<u>69,923,666</u>	<u>68,325,667</u>
<i>INTEREST AND OTHER DEDUCTIONS</i>		
Interest	65,191,402	66,215,295
Allowance for funds used during construction (Note 1c)	(91,841)	(514,409)
Other — net	83,100	100,955
	<u>65,182,661</u>	<u>65,801,841</u>
Operating Margins	4,741,005	2,523,826
<i>NON-OPERATING MARGINS — PRINCIPALLY INTEREST INCOME</i>	3,961,238	3,400,861
<i>LOSS ON ABANDONMENT OF NUCLEAR POWER PLANT (Note 3)</i>		(10,130,000)
<i>NET MARGINS</i>	<u>8,702,243</u>	<u>(4,205,313)</u>
<i>PATRONAGE CAPITAL AT BEGINNING OF YEAR</i>	<u>17,812,370</u>	<u>22,017,683</u>
<i>PATRONAGE CAPITAL AT END OF YEAR</i>	<u>\$ 26,514,613</u>	<u>\$ 17,812,370</u>

See "Notes to Financial Statements"

# STATEMENT OF CASH FLOWS

	Years Ended December 31,	
	1990	1989
<i>OPERATING ACTIVITIES</i>		
Net margins	\$ 8,702,243	\$ (4,205,313)
Adjustments necessary to reconcile net margins to net cash provided by operating activities:		
Depreciation, amortization, and depletion	24,213,966	20,982,839
Abandonment of nuclear power plant		10,130,000
Decrease (increase) in accounts receivable	2,955,330	(5,439,509)
(Increase) decrease in inventories	(190,483)	3,431,662
(Increase) decrease in other assets	(506,383)	2,147,126
(Decrease) increase in accounts payable and accrued expenses	(2,242,295)	2,521,930
(Decrease) in accrued interest payable	(14,731,443)	(252,278)
Accrued decommissioning payable	1,126,952	
<i>NET CASH FROM OPERATING ACTIVITIES</i>	<i>19,327,907</i>	<i>29,316,457</i>
<i>INVESTING ACTIVITIES</i>		
Acquisitions of electric utility plant	(11,339,271)	(13,570,167)
Retirements of electric utility plant	4,423,408	419,609
Increase in other invested funds	(7,625,762)	
Other	(177,413)	(232,481)
<i>NET CASH USED IN INVESTING ACTIVITIES</i>	<i>(14,719,038)</i>	<i>(13,383,039)</i>
<i>FINANCING ACTIVITIES</i>		
Payment of debt	(17,584,045)	(15,792,228)
Proceeds from debt	9,404,035	5,670,917
<i>NET CASH USED IN FINANCING ACTIVITIES</i>	<i>(8,180,010)</i>	<i>(10,121,311)</i>
<i>NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS</i>	<i>(3,571,141)</i>	<i>5,812,107</i>
<i>CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR</i>	<i>41,755,331</i>	<i>35,943,224</i>
<i>CASH AND CASH EQUIVALENTS AT END OF YEAR</i>	<i>\$ 38,184,190</i>	<i>\$ 41,755,331</i>
<i>CASH AND CASH EQUIVALENTS AT YEAR END</i>		
Cash	\$ 398,337	\$ 289,515
Commercial paper	37,785,853	41,465,816
	<i>\$ 38,184,190</i>	<i>\$ 41,755,331</i>
See "Notes to Financial Statements"		

# NOTES TO FINANCIAL STATEMENTS

FOR YEARS ENDED DECEMBER 31, 1990 AND 1989

## NOTE 1 — Summary of Significant Accounting Policies

### a. Electric Utility Plant and Depreciation

South Mississippi Electric Power Association is a rural electric cooperative established under the laws of the State of Mississippi. SMEPA is a generation and transmission cooperative which provides electric power to eleven owner-members which are rural electric distribution cooperatives providing electric power to consumers in certain areas of Mississippi. Financing assistance is provided by the United States Department of Agriculture, Rural Electrification Administration (REA). In addition to being subject to regulation by its own governing board of directors, SMEPA is subject to certain rules and regulations promulgated for rural electric borrowers by REA. SMEPA maintains its accounting records in accordance with the Federal Energy Regulatory Commission's Chart of Accounts as modified and adopted by REA. As a regulated utility, the methods of allocating costs and revenue to time periods may differ from those principles generally applied by nonregulated companies. The more significant accounting policies are generally described as follows:

Electric utility plant is stated at cost, which includes contract work, materials and direct labor, allowance for funds used during construction and allocable overhead costs. The cost of electric generating stations and related facilities also includes costs of training and production incurred, less revenue earned, prior to the date of commercial operation.

Depreciation is provided on the straight-line method for utility plant at the following annual composite rates:

<i>Nuclear plant</i>	2.85%
<i>Non-nuclear plant</i>	3.00% to 3.31%
<i>Transmission plant</i>	2.75%
<i>General plant and transportation equipment</i>	2.00% to 25.00%

At the time units of electric utility plant are retired, their original cost and cost of removal, less net salvage value, are charged to the allowance for depreciation. Replacements of electric utility plant involving less than a designated unit value of property are charged to maintenance expense.

Coal reserves are stated at cost. Depletion is provided by the units mined method.

### b. Cost of Decommissioning Nuclear Plant and Amortization of Unrecovered Plant Costs

SMEPA's portion of the estimated decommissioning cost of Grand Gulf Nuclear Station (GGNS) Unit I is charged to operating expenses over the service life of Unit I of approximately 35 years.

SMEPA's portion of the unrecovered plant costs of GGNS Unit II is amortized over the remaining life of the related debt of approximately 27 years, and approximated \$2,398,000 in 1990.

### c. Allowance for Funds Used During Construction

Allowance for funds used during construction represents the cost of directly related borrowed funds used for construction of the electric plant, where applicable, and an allowance based on the average cost of appropriate borrowings when general funds are used to fund construction. The allowance is capitalized as a component of the cost of the electric plant while it is under construction.

Capitalization ceases when the electric plant is placed in service, or in the case of electric generating stations and related facilities, at the date of commercial operation.

### d. Inventories

Inventories are stated at average costs.



e. *Deferred Charges*

Costs of preliminary surveys for development of possible methods to obtain and deliver energy to fulfill members' future requirements, including feasibility studies leading to financing necessary plant expenditures, are recorded as deferred charges. If construction of a project results from such surveys, the deferred charges are transferred to the cost of the facilities. If a preliminary survey is abandoned, the costs incurred are written off.

Bond issue costs are being amortized by the straight-line method, which does not differ materially from the interest method, over the term of the related debt. The amortization during the period of construction is capitalized.

f. *Patronage Capital*

The bylaws of SMEPA provide that any excess of revenue over expenses and accumulated prior year deficits shall be treated as advances of capital by the member patrons and credited to them on the basis of their patronage.

g. *Interchange Power*

SMEPA records the electrical power received or provided on an interchange basis at its cost as determined under various contractual arrangements.

h. *Income Taxes*

SMEPA is exempt from United States income taxes pursuant to Section 501 (c) (12) of the Internal Revenue Code, which requires that at least 85% of SMEPA's gross income be derived from its members.

i. *Cash and Cash Equivalents*

Cash in excess of daily requirements is invested in marketable securities consisting of commercial paper and repurchase agreements. Investments with maturities of three months or less when purchased are deemed to be cash equivalents for purposes of the statement of cash flows.

j. *Reclassifications*

Certain reclassifications have been made to the 1989 financial statements to conform to the 1990 method of presentation.

**NOTE 2 —  
Electric Utility Plant**

Electric utility plant consisted of the following:

	December 31,	
	1990	1989
<i>Nuclear production plant</i>	\$ 394,252,417	\$ 393,716,672
<i>Non-nuclear production plant</i>	208,937,254	208,626,420
<i>Transmission plant</i>	73,435,329	63,373,049
<i>Coal properties and preparation plant</i>	24,601,851	24,601,851
<i>Land and land rights</i>	12,399,983	11,621,309
<i>General plant and transportation equipment</i>	12,421,449	11,957,355
<i>Electric plant in service</i>	726,048,283	713,896,656
<i>Construction work in process</i>	10,468,466	13,937,773
	<u>\$ 736,516,749</u>	<u>\$ 727,834,429</u>

**NOTE 3—  
Construction Work  
in Process and  
Commitments  
Regarding Grand  
Gulf Nuclear  
Station**

SMEPA is a 10% participant in a nuclear generating station known as "Grand Gulf Nuclear Station" (GGNS), which consisted of two 1,250-megawatt generating units. Commercial operation for Unit I began on July 1, 1985. In September 1985, the construction of Unit II was suspended by regulatory authorities.

In September 1989, the majority owner elected to abandon Unit II. SMEPA's accumulated cost in Unit II was approximately \$104,000,000, including allowance for funds used during construction of approximately \$42,000,000. At the date of abandonment, SMEPA made a determination as to the cost that could be recovered through future rate increases and charged the remaining cost to expense. After transfers to GGNS Unit I inventories of approximately \$2,085,000 and property accounts of approximately \$605,000, approximately \$91,180,000 was transferred to unrecovered plant cost on the balance sheet during 1989 and the unrecoverable cost approximating \$10,130,000 was included as a loss in the statement of net margins and patronage capital for 1989. This accounting for Unit II has been reviewed and approved by REA.

Continued  
NOTE 3—  
Construction Work  
in Process and  
Commitments  
Regarding Grand  
Gulf Nuclear  
Station

During 1990, SMEPA submitted a formal plan to the Nuclear Regulatory Commission ("NRC") that demonstrated assurance that sufficient financial resources would be available at the time it becomes necessary to decommission Unit 1. In addition, SMEPA received approval from the Internal Revenue Service to establish a "tax-free" grantor trust as a vehicle to fund the estimated decommissioning costs.

Subsequent to December 31, 1990, SMEPA contributed \$1,126,952 to the trust to fund the estimated accrued decommissioning liability that existed at December 31, 1990. At the present time, SMEPA estimates that the funding requirement will approximate \$439,000 annually through 2022, the expected date of decommissioning. The estimated funding requirement will be recalculated and adjusted periodically.

NOTE 4—  
Investments in  
Associated  
Organizations

Investments in associated organizations are stated at cost and consisted of the following:

	1990	1989
National Rural Utilities Cooperative Finance Corporation (CFC) Capital Term Certificates	\$ 8,414,533	\$ 8,414,533
CFC Subordinated Term Certificates	2,490,000	2,490,000
Other	438,341	382,688
	<u>\$ 11,342,874</u>	<u>\$ 11,287,221</u>

Capital Term Certificates bear interest at 3% and 4% and mature in 2007 through 2080. The Subordinated Term Certificates bear interest at 9.873% and mature in 2015.

NOTE 5—  
Short-term Borrowings

SMEPA has a \$25,000,000 short-term line of credit available with National Rural Utilities Cooperative Finance Corporation (CFC). At December 31, 1990 and 1989, SMEPA had no borrowings against this line of credit. Interest rates on short-term borrowings with CFC averaged approximately 9.49% and 10.50% for 1990 and 1989, respectively. Capital Term Certificates in CFC, which are included in other assets and investments, cannot be redeemed so long as the line of credit is in place.

NOTE 6—  
Long-Term Debt

Long-term debt consisted of the following:

	December 31,	
	1990	1989
2% REA mortgage notes, payable, due in quarterly installments through 2009	\$ 28,481,702	\$ 30,212,815
5% REA mortgage notes payable, due in quarterly installments through 2015	20,605,936	21,178,320
5% REA mortgage notes payable, due in monthly installments through 2019	8,020,979	5,748,172
Mortgage notes payable to Federal Financing Bank (FFB) at interest rates varying from 7.160% to 14.512%, due in quarterly installments through 2019	576,288,905	583,349,246
Notes payable to National Bank for Cooperatives at interest rates varying from 8.5% to 10.35%, due in quarterly installments through 2022	3,250,088	3,323,066
Lamar County, Mississippi, Pollution Control Bonds— 1977 Series, 5.25% to 6.125%, due semi-annually through 2007	30,885,000	31,930,000

Continued  
NOTE 6 —  
Long-Term Debt

1978 A Series, 5.40% to 6.125%, due semi-annually through 2008	2,215,000	2,285,000
1978 A-1 Series, 6.25% due semi-annually through 2008	805,000	830,000
Claiborne County, Mississippi, Pollution Control Bonds — 1985 G Series, variable interest rates (6.10% to 6.30% at December 31, 1990), due annually through 2015	48,200,000	48,600,000
9.75% note payable to National Rural Utilities Cooperative Finance Corporation, due in quarterly installments through 2022	524,000	
	719,276,610	727,456,619
Less current maturities	13,312,220	12,118,844
	<u>\$ 705,964,390</u>	<u>\$ 715,337,775</u>

Substantially all assets of SMEPA were pledged as collateral on long-term debt.

SMEPA has the option on FFB promissory note advances to elect (subject to REA approval) interim maturity dates of approximately two years after the date of the advance or a long-term maturity ranging from approximately 27 to 34 years (depending on the terms of the particular note) after the end of the calendar year in which the advance was made. If the long-term maturity date is not selected, then on subsequent interim maturity dates, SMEPA may designate that it desires either another short-term maturity or the long-term maturity date as specified in the note.

Approximate annual maturities of long-term debt for the next five years are as follows:

1991	\$13,312,000
1992	14,486,000
1993	15,448,000
1994	17,062,000
1995	17,864,000

The above maturity schedule reflects management's prerogative of converting FFB advances at interim maturity dates from 1991 through 1995 to long-term maturities. SMEPA has used a rate it estimates to be an appropriate long-term rate, based on the December 31, 1990 interest rates, to compute the annual principal requirement.

At December 31, 1990, SMEPA had unfunded loan commitments from FFB, CFC and REA of \$15,000,000, \$1,736,000 and \$5,556,000, respectively. The commitment from FFB is restricted for use in funding GCNS.

SMEPA paid approximately \$79,923,000 in 1990 and \$66,335,000 in 1989 in interest on long-term debt.

SMEPA is required by mortgage covenants to maintain certain average levels of interest coverage and annual debt service coverage. SMEPA was in compliance with such requirements at December 31, 1990.

**NOTE 7—  
Pension Plan**

Substantially all of SMEPA's employees participate in the National Rural Electric Cooperative Association (NRECA) Retirement and Security Program, a defined benefit pension plan qualified under Section 401 and tax-exempt under Section 501(a) of the Internal Revenue Code. SMEPA makes annual contributions to the program equal to the amounts accrued for pension expense except for the period since July 1, 1987 when a moratorium on contribution was placed in effect due to reaching full funding limitation. In this multiemployer plan, which is available to all member cooperatives of NRECA, the accumulated benefits and plan assets are not determined or allocated separately by individual employer. SMEPA had no pension expense for this plan in 1990 or 1989. During 1990, SMEPA amended its retirement plan to provide for an earlier retirement. The amendment became effective January 1, 1991. SMEPA elected to amortize prior service costs created by the amendment over ten years. The effect of the amendment is not material to the financial statements.

In addition to providing pension benefits, MEPA provides certain health care insurance benefits for retired employees. Substantially all of SMEPA's employees may become eligible for those benefits if they reach normal retirement age while working for SMEPA. SMEPA recognizes the cost of providing these benefits by expensing the annual insurance premiums, which were not material for 1990 or 1989.

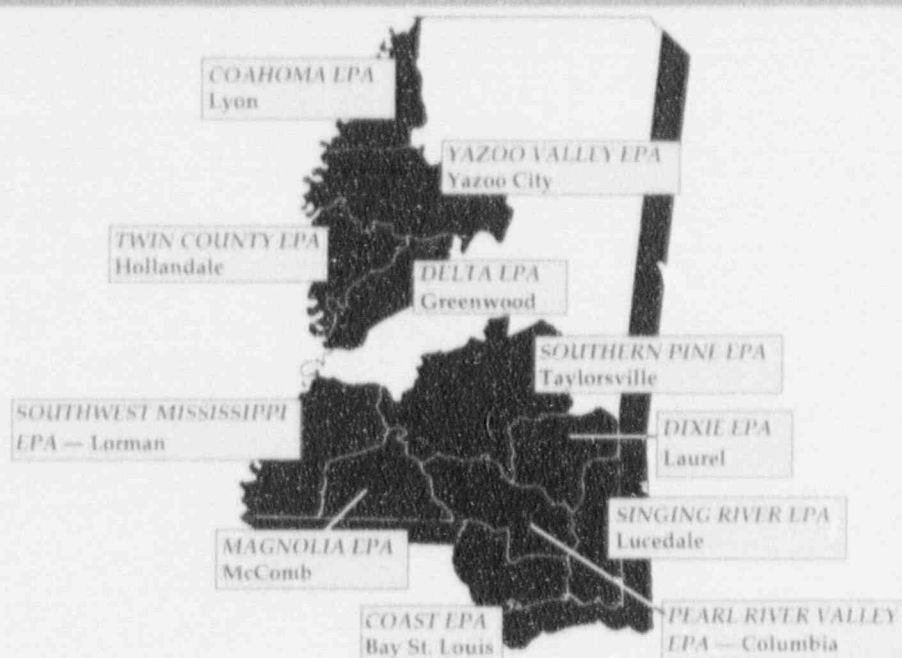
In 1990, the Financial Accounting Standards Board issued Statement No. 106, "Employers' Accounting for Postretirement Benefits Other than Pensions," which is generally effective for calendar year 1993. Management is currently evaluating the effects of the application of Statement No. 106, which are not presently known.

**NOTE 8—  
Commitments and  
Contingencies**

In March 1988, SMEPA began receiving its coal supply under an agreement with a new supplier. This agreement provides that certain conditions be met including, among other things, minimum annual delivery requirements, and does not require the coal produced for SMEPA's consumption be taken from SMEPA's coal reserves, so long as the coal meets the quality requirements of the agreement.


SMEPA has construction contract commitments for various non-nuclear utility projects totaling approximately \$2,097,000 at December 31, 1990.


SMEPA is defendant in certain litigation incurred in the normal course of business. Management, based on advice of legal counsel, is of the opinion that the ultimate resolution of the litigation will not have a material adverse effect on SMEPA's financial condition.




	Date Energized	Miles of Line	Number of Consumers	MWh Purchased	Percent Increase over 1989
Coahoma EPA <i>Giles Bounds, Manager</i>	1/18/38	1,450	6,200	88,763	1.03%
Coast EPA <i>Robert Occhi, General Manager</i>	5/20/38	3,789	42,572	731,342	1.04%
Delta EPA <i>Harry H. Bonner, General Manager</i>	1/30/39	5,156	20,702	367,305	1.10%
Dixie EPA <i>J. T. Dudley, Jr., General Manager</i>	7/28/39	3,750	21,369	436,878	1.03%
Magnolia EPA <i>Samuel Williams, Manager</i>	9/19/39	4,394	20,875	378,111	1.02%
Pearl River Valley EPA <i>W. T. Shivers, General Manager</i>	5/19/39	4,667	26,207	440,644	1.03%
Singing River EPA <i>Jack Ware, General Manager</i>	12/5/39	4,565	44,043	786,146	1.04%
Southern Pine EPA <i>Donald Jordan, Manager</i>	5/13/39	8,783	46,184	1,183,249	1.05%
Southwest Mississippi EPA <i>Robert St. John, Manager</i>	3/27/38	3,730	20,437	337,582	1.02%
Twin County EPA <i>Vesper Bagley, Manager</i>	1/1/39	2,130	11,942	215,478	1.16%
Yazoo Valley EPA <i>C. H. Shelton, Manager</i>	3/23/38	2,589	8,472	201,637	1.00%


## WHERE WE ARE


 **Moselle Generating Station**  
Commercial Operation: 1970  
Location: Jones County  
Capacity: 177MW  
Fuel: Natural Gas/Fuel Oil  
Employees: 28


 **R. D. Morrow, Sr. Generating Plant**  
Commercial Operation: 1978  
Location: Lamar County  
Capacity: 400MW  
Fuel: Bituminous Coal  
Employees: 92

 **SMEPA Headquarters**  
Location: Hattiesburg  
(Forrest County)  
Employees: 113

**Gas Turbine Units**  
Unmanned stations remotely operated  
by SMEPA's Control Center located at  
the headquarters facility.

 **Benndale Unit**  
Commercial Operation: 1969  
Location: George County  
Capacity: 16MW  
Fuel: Natural Gas

 **Paulling Unit**  
Commercial Operation: 1972  
Location: Jasper County  
Capacity: 20MW  
Fuel: Diesel Fuel/Natural Gas

 **Grand Gulf Nuclear Station**  
(10% Undivided Interest in Unit 1)  
Commercial Operation: 1985  
Location: Port Gibson (Claiborne County)  
Capacity at 10%: 125MW  
Fuel: Nuclear  
Employees: 4



  
**South Mississippi  
Electric Power Association**

Post Office Box 15617  
Hattiesburg, Mississippi 39402