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Mr. Mitchell Perkins Director State Energy Office 1201 Main Street, Suite 820 Columbia, South Carolina 29201

Dear Mr. Perkins:

Enclosed is the annual update (dated June 2000) to Santee Cooper's Integrated Resource Planning Analysis (IRP). This update provides a status of DSM Programs and the Generation Resource Plan as required by the South Carolina Code, Section 58-37-40.

If you have any questions about the update, please call me.

Sincerely,

Lonnie N. Carter

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Enclosures



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South Carolina Public Service Authority

**JUNE 2000** 

## TABLE OF CONTENTS

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		<u>PAGE</u>
I.	1999 Integrated Resource Plan Update	1
II.	DSM Existing Programs	2
III.	Conclusion	4

## I. 1999 Integrated Resource Plan Update

1,

This report provides a status of the recommendations for Demand Side Management (DSM) activities as required by the South Carolina Energy Conservation and Efficiency Act of 1992, Section 58-37-40. The Act requires that all plans must be submitted every three years beginning June 30, 1993 and must be updated on an annual basis. This report includes the status of existing DSM Programs.

Santee Cooper prepared a generation resource study which began in late 1999 and was completed in March 2000 (the "2000 Generation Resource Plan"). The 2000 Generation Resource Plan included the addition of Saluda River Electric Cooperative into Santee Cooper's customer base under a Power Sales Agreement dated May 6, 1999. Under the Power Sales Agreement, Santee Cooper begins serving the total demand and energy requirements of Saluda River Electric Cooperative, less their Catawba ownership entitlement, beginning January 1, 2001.

The 2000 Generation Resource Plan assessed the need for additional generating resources to meet future customer demands and developed a least-cost plan to provide the resources for Santee Cooper to meet these demands. Current and future DSM Programs were not evaluated in the plan, but will be separately evaluated on an individual, case-by-case basis.

The 2000 Generation Resource Plan evaluated potential purchased power options, received in response to a request for proposals issued by Santee Cooper, against Santee Cooper's self-build generation options. The self-build options evaluated consisted of gas-fired simple-cycle combustion turbine units, gas-fired combined-cycle units, and coal-fired thermal units.

-1-

For the immediate planning period of 2000 through 2005, the 2000 Generation Resource Plan recommended the following:

- Santee Cooper purchase varying amounts of firm power ranging from 150 MW to 550 MW for the period of 2000 through 2003.
- Santee Cooper complete the construction of the Rainey Station units as planned (one (1) 500 MW-class combined cycle unit and two (2) 168 MW-class simple cycle combustion turbine units).
- Santee Cooper develop a plan to construct a new 500 MW-class combined cycle unit in 2004.

Load Forecast 9902 was completed and published in December 1999, which provides an update to the 1998 Load Forecast.

## **II. DSM Existing Program**

1. Good Cents New and Improved Home Program

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> The Good Cents Program is developed to provide residential customers an incentive to build new homes to higher levels of energy efficiency and improve existing homes by upgrading heating and air conditioning equipment and the thermal envelope to high energy efficiency standards. All homes are evaluated to determine if they meet the standards set for the program. Inspections are completed during construction for new homes and at the completion of construction for new and improved homes. Participants are eligible for an incentive rate.

> Program participation in 1999 resulted in a demand savings of 5,478 kW and energy savings of 6,618,000 kWh. Total expenditures for the Good Cents Program incurred through the South Carolina Public Service Authority in 1999 were \$4,500,010. (Demand savings are based on summer peak demand reduction of 1.05 kW).

-2-

2. H<sub>2</sub>O Advantage Water Heating Program

 $H_2O$  Advantage is a storage water heating program designed to shift the demand related to water heating off-peak. This is accomplished with the installation of an electronic timer or radio controlled switch on an 80 gallon water heater.

Program participation in 1999 resulted in a demand savings of 1,017 kW. Total expenditures for the  $H_2O$  Advantage Program incurred through the South Carolina Public Service Authority in 1999 were \$5,444,075.

3. Commercial Good Cents

Commercial Good Cents is offered to commercial customers building new facilities that improve the efficiency in the building thermal envelope, heating and cooling equipment, and lighting. Commercial customers that meet program standards are given an up-front rebate to encourage participation in the program.

Program participation in 1999 resulted in a demand savings of 55.5 kW and energy savings of 88,760 kWh. Total expenditures for the Commercial Good Cents Program incurred through the South Carolina Public Service Authority in 1999 were \$41,833.

4. Thermal Storage Cooling Program

This program shifts energy used by commercial customers for air conditioning from peak to off-peak hours by utilizing thermal energy stored in a medium such as ice or water. Rebates are offered to customers who install this type of equipment. There are currently no participants in the program.

-3-

## **III.** Conclusion

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Santee Cooper has made good progress toward offering DSM Programs. Santee Cooper continues to offer these DSM Programs where cost effective, and has completed generation resource planning necessary to ensure a reliable generation plan to meet customer demands through 2010.