1996 Short-Term Action Plan

SCE&G
A SCANA Company

I. INTRODUCTION

This Short–Term Action Plan (STAP) is the first status report describing the implementation of the Company's 1995 Integrated Resource Plan (IRP) which was approved by the Commission in Order No. 96–194 issued under Docket No. 95–863–E. The filing of this STAP is required by the South Carolina Public Service Commission (PSC) in Order No. 91–1001 issued under Docket No. 87–223–E. The STAP is responsive to this order as well as to Order No. 93–845 issued under the same docket which modified the IRP stipulations and to Order No. 93–205 issued under Docket No. 92–245–E in which the Commission approved the Company's 1992 IRP and listed certain issues to be addressed in future STAPS and IRPs.

The STAP discusses the Company's planning process which is a continuous activity producing plans subject to change as necessary in response to new information. In the fall of each year, the Company formally develops new forecasts, budgets and long–term plans. The information contained in this report is based, for the most part, on the results of this latest planning cycle. The IRP represents the integration of three primary planning activities: the forecast, demand–side management, and supply–side planning. This document provides updated information on these three components of the 1995 IRP.

II. FORECAST

The Company's current projections of energy sales and peak demands are presented in the following table. They reflect updated econometric and statistical forecasting models, new projections of economic activity in the service territory, including updated information on large customers and the latest projection of DSM program impacts. The current forecast has not changed significantly from that reported in the 1995 IRP. The tables below highlight the change in energy sales and peak demand.

Energy (GWH)	1996	2010	Compound Annual Growth
1995 IRP	18,822	24,205	1.8%
1996 STAP	18,870	24,166	1.8%
Percent Change	0.3%	(0.2)%	

Peak Demand (MW)	1996	2010	Compound Annual Growth
1995 IRP	3,586	4,397	1.5%
1996 STAP	3,529	4,307	1.4%
Percent Change	(1.6)%	(2.0)%	

III. DEMAND-SIDE MANAGEMENT

South Carolina Electric & Gas Company (SCE&G) made numerous changes to its demand-side management (DSM) portfolio in 1995 in order to achieve an efficient allocation of resources while simultaneously minimizing any negative impact on ratepayers. By the time the Company filed its 1995 Integrated Resource Plan, the South Carolina Public Service Commission had already ordered discontinuation of the following programs:

> **Residential Off-Peak Water Heating** – placed electronic timers on residential water heaters to limit usage during SCE&G's peak hours. The program was plagued by equipment problems and higher costs than anticipated.

Commercial/Industrial Fluorescent Ballast – established in 1990 to incent customers to replace magnetic ballasts with more efficient electronic models. The falling cost of electronic ballasts and wide customer acceptance of the technology eventually made additional rebates unnecessary.

Commercial/Industrial High Efficiency Lighting – launched in 1990 to encourage commercial and industrial customers to migrate from 40W lamps to more efficient 34W and 32W lamps. The program was very successful, but became unnecessary as the lamp efficiencies it promoted became standard technology.

In addition, SCE&G proposed in the IRP to close the programs listed below, and all are now officially terminated.

Residential Rate 1, Good Cents Rate (Existing customers grandfathered) – provided a rate discount to residential customers meeting Good Cents building requirements. This rate has been replaced by the Good Cents / Conservation Rate 6.

Residential Rate 7, REC – provided a rate discount to residential customers meeting prescriptive energy efficiency standards. This rate has been replaced by the Good Cents / Conservation Rate 6.

Residential Great Appliance Trade–Up – provided rebates and financing to residential and commercial purchasers of high efficiency cooling systems, and incented supplemental heat delivered by a gas water heater.

Residential Thermal Storage – implemented to encourage a technology that stores energy during off–peak hours and uses it to provide residential cooling during the on–peak hours. The technology remains too immature and too expensive for wide scale implementation.

Residential Heat Pump Pool Heaters – designed to encourage the technology in South Carolina, the program met with unwillingness by dealers to carry the equipment.

Commercial/Industrial Gas Air Conditioning – offered incentives to customers installing gas absorption cooling rather than electric cooling. Since SCE&G's gas sales program already incented this technology, additional incentives by the electric marketing program became unnecessary.

Commercial/Industrial High Efficiency Motors – provided an incentive to replace inefficient motors with high efficiency models. Technology, availability, and price evolved so quickly that the efficiencies incented by the program became standard.

Commercial/Industrial Adjustable Speed Drives – incented replacement of standard drives with adjustable speed models. Falling prices on the technology lowered customer payback to less than two years even without an incentive. At the time it was cancelled, customer contact representatives estimated nearly 100% free ridership on the program.

The following programs were modified:

Residential Home Energy Check – A program to provide energy audits to residential customers. The Company changed the rebate structure and added a small service call fee that is credited back to the customer if he or she makes any of the recommended improvements. The Company also changed the name to **Value Visit.**

Commercial Heat Pump Water Heater (& Pool Heater) – sought methods of introducing the technology to the commercial sector. Since dealers in South Carolina have remained reluctant to commit to the new technology and installations are practically non-existent in the Company's service territory, SCE&G discontinued incentives. The Company will continue education of potential suppliers.

Commercial HVAC – offered commercial customers incentives for choosing high efficiency heat pumps and air conditioners up to 65,000 BTUH. Since high efficiency has become affordable even without utility rebates, SCE&G changed this program to an education-only activity.

Commercial High Efficiency Chillers – offered an incentive per deferred kW associated with the installation of a high efficiency chiller. Thanks to evolving technology, the customer now has significant financial incentive to choose high efficiency even without a rebate. SCE&G changed this program to an education-only activity.

Commercial Thermal Storage – offers customers an incentive per kW deferred by thermal storage. SCE&G modified the rebate structure to provide incentives that differ by project size and assure that the program is beneficial to ratepayers as well as participants.

SCE&G chose to continue several existing programs without change, namely:

Residential Rate 2, Low Use – provides a lower electricity price to any residential customer who meets specified low usage restrictions.

Residential Rate 5, Time–Of–Use (TOU) – is a voluntary time–of–use rate for residential service.

Commercial/Industrial Standby Generator – pays customers who have an emergency generator with at least 200 kW connected load to self–generate when SCE&G needs extra capacity.

Commercial/Industrial Rates 11, 16, 21, 24, Time–Of–Use (TOU) – time–of–use rates for the agricultural, commercial, and industrial sectors.

Commercial/Industrial Rider To Rates 23 & 24, Interruptible – provides a rate incentive to customers who are willing to be interrupted.

To round out the portfolio, SCE&G also launched three new programs:

Good Cents/Conservation Program – provides a rate discount to residential customers who meet the specified energy efficiency requirements.

Residential Replacement Water Heater Program – promotes electric water heaters in the replacement market by providing an incentive to the installer and offering to finance the purchase and installation of an electric water heater without interest (0%) for up to five years.

Residential High Efficiency Heat Pump Program – offers dealers an incentive to sell high efficiency electric heat pumps, and offers financing to qualifying customers for the purchase and installation of such units. Customers can finance duct system improvements as part of the unit's installation cost.

The following chart summarizes available data on participation, impacts and program costs for demand–side management activities in 1995. Due mainly to programs which were closed but still had significant DSM expenses in 1995, the portfolio had a negative impact on ratepayers.

DSM Programs (1995)	# Of Units Added	Type Of Unit	Estimated Impact	Actions	Program Costs
Residential Off-Peak Water Heating	-		$ -	Closed	$ 29,909.43
Residential GATU	3,029	Appliances	$ (1,905,302)	Closed	$ 5,865,187.06
Residential GATU Retrofit	4,882	Appliances	$ (3,070,876)	Closed	included above
Residential Home Energy Check (HEC)	859	Visits	$ (485,613)	Closed	$ 196,144.93
Residential Good Cents Rate 1	2,576	Homes	$ (7,183,279)	Closed	$ 764,106.92
Residential Conservation Rate 7	374	Homes	$ (511,557)	Closed	$ 51,712.02
Heat Pump Water Heaters	-		$ -	Closed	$ 8,279.33
Gas Air Conditioning	-		$ -	Closed	$ 54.11
High Efficiency Flourescent Ballasts	-		$ -	Closed	$ 469,553.18
Flourescent Lamp/ High Efficiency Lighting	-		$ -	Closed	$ 34,221.13
Comm/Ind High Efficiency Motors	2	Motors	$ 1,761	Closed	$ 16,229.67
Comm/Ind Adjustable Speed Drives	-	Drives	$ -	Closed	$ 69,069.44
Subtotal			$ (13,154,866)		$ 7,474,557.79
Commercial HVAC	28	Appliances	$ (317,136)	Changed	$ 180,084.81
Commercial Chillers	521	kW	$ (258,520)	Changed	$ 129,279.88
Comm/Ind Thermal Storage	3,969	kW	$ 968,436	Changed	$ 1,120,755.79
Subtotal			$ 392,780		$ 1,430,120.48
Residential Value Visit	93	Visits	$ (2,325)	Added	included in HEC
Residential Heat Pump Retrofit	134	Appliances	$ 394,053	Added	$ 116,347.61
Residential Electric Water Heater	1,464	WH	$ 44,528	Added	$ 281,916.02
Residential Good Cents/Conservation Rate	-	Homes	$ -	Added	$ -
Comm/Ind Standby Generator	3,854	kW	$ 200,408	Not Changed	$ 423,179.32
Industrial Interruptible	20,209	kW	$ 5,153,295	Not Changed	$ 872.19
Subtotal			$ 5,789,959		$ 822,315.14
TOTAL			$ (6,972,127)		$ 9,726,993.41

SCE&G has sought a balanced approach, weighing what is best for society and ratepayers. In 1996, the Company will continue to have some programs such as Value Visit and Residential Good Cents/Conservation which have a negative impact on ratepayers. The cost to society of withdrawing them at the present time is too high. However, the changes SCE&G has made should dramatically lower the negative impact of the portfolio on ratepayers.

IV. SUPPLY-SIDE PLANNING

In 1996 the Company is making changes to its generating capacity. The Cope Electric Generating Station went into commercial operation on January 15, 1996. It was completed several months ahead of schedule and significantly under budget. It has

added 385MW to the Company's generating capability. Another significant addition to generating capability results from installing new rotors in the low–pressure turbine at V. C. Summer Nuclear Station. The capacity of the plant during summer peaking conditions should increase by 45 megawatts with two–thirds or 30 megawatts available to SCE&G customers. In 1995 the Company signed an agreement with the Department of Energy Savannah River (SRS) which, among other things, resulted in the Company operating an additional 17 megawatts of generating capacity. This capacity is dispatched to meet DOE needs for process steam at the site. Finally, the Company had arranged a 100MW capacity swap with Georgia Power whereby Georgia Power made available 100MW of capacity to SCE&G during the 1995 summer and SCE&G committed to reciprocate in 1996 to assist with the summer Olympics. The following table shows the Company's long–term supply plan and the projected firm peak demand for the service territory. Except for the capacity changes shown in 1996, the Company has not obligated itself to any other capacity addition shown on the attached sheet. It should be kept in mind that this is only a plan and is subject to change.

Supply Side of the 1996 Short Term Action Plan

CAPACITY CHANGES

YEAR	PEAK (MW)	ONE YEAR (MW)	LONG TERM (MW)	DESCRIPTION	CAPACITY (MW)	RESERVE MARGIN
1996	3,529		385	COPE PULVERIZED COAL UNIT	4,212	19.4%
			30	VCSN UPRATE		
			17	SRS		
		-100		GEORGIA POWER		
1997	3,586				4,312	20.2%
1998	3,647				4,312	18.2%
1999	3,760		63	COGENERATION PROJECT	4,375	16.4%
2000	3,819				4,375	14.6%
2001	3,871	100		CAPACITY PURCHASE	4,475	15.6%
2002	3,926		150	ICT	4,525	15.3%
2003	3,976	50		CAPACITY PURCHASE	4,575	15.1%
2004	4,029		150	ICT	4,675	16.0%
2005	4,084				4,675	14.5%
2006	4,137	100		CAPACITY PURCHASE	4,775	15.4%
2007	4,181		150	ICT	4,825	15.4%
2008	4,227	50		CAPACITY PURCHASE	4,875	15.3%
2009	4,268	100		CAPACITY PURCHASE	4,925	15.4%
2010	4,307		150	ICT	4,975	15.5%
2011	4,353	50		CAPACITY PURCHASE	5,025	15.4%
2012	4,401	100		CAPACITY PURCHASE	5,075	15.3%
2013	4,454	150		CAPACITY PURCHASE	5,125	15.1%
2014	4,503		400	PULVERIZED COAL UNIT	5,375	19.4%
2015	4,550				5,375	18.1%

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