Tel 850 444 6000

January 13, 1998



Ms. Blanca S. Bayo, Director Division of Records and Reporting Florida Public Service Commission 101 East Gaines Street Tallahassee FL 32399-0870

Dear Ms. Bay :

RE: Docket No. 980002-EG

ORIGINAL

Enclosed for official filing in the above referenced docket are an original and ten (10) copies of the following:

Petition of Gulf Power Company for Approval of the 1. Final Conservation Cost Recovery True-up Amounts" for October 1996 through September 1997, Estimated Conservation Cost Recovery True-up Amounts for October 1997 through March 1998; and Projected Conservation Cost Recovery Amounts for April 1998 through March 1999; and the Conservation Cost Recovery Factor to be Applied Beginning with the Period April 1998 through March 1999.

FPSC-RECEPTEVPPRORTING

Prepared direct testimony and exhibit of 2.

	M. D. Neyman.
AFA Laster	Also enclosed is a 3.5 inch double sided, double density diskette commaining the Petition in WordPerfect for Windows 6.1
CAF	format as prepared on a MS-DOS based computer.
CMU	Sincerely,
CTR	Susan D. Cranme
~	Susan D. Cranmer
LIII 3tag	Assistant Secretary and Assistant Treasurer
070	lw .
RCH	Enclosures
SEC	Pt+10000
w:s	J. A. Stone, Esq. DOCUMENT NUMBER-DATE

FESC-RECUSING/ASMORTING

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Conservation Cost Recovery)	
)	Docket No. 980002-EG

Certificate of Service

I HEREBY CERTIFY that a true copy of the loregoing was furnished by hand delivery or the U. S. Mail this 12번 day of January 1998 to the following:

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ORIGINIAL'

GULF POWER COMPANY

DIRECT TESTIMONY AND EXHIBIT OF MARGARET D. NEYMAN

> DOCKET 980002-EG JANUARY 13, 1998

> > DOCUMENT NUMBER-DATE

1		Gulf Power Company
2		Before the Florida Public Service Commission Prepared Direct Testimony of
3		Margaret D. Neyman Docket No. 980002-EG
4		January 13, 1998
5		
6	Q.	Will you please state your name, business address,
7		employer and position?
8	A.	My name is Margaret D. Neyman and my business address
9		is One Energy Place, Pensacola, Florida 32520. I am
10		employed by Gulf Power Company as the Marketing
11		Services Manager.
12		
13	Q.	Are you familiar with the documents concerning the
14		Energy Conservation Cost Recovery?
15	A.	Yes, I am.
16		
17	Q.	Have you verified, that to the best of your knowledge
18		and belief, this information is correct?
19	A.	Yes, I have.
20		
21		Counsel: We ask that Ms. Neyman's exhibit consisting
22		of 5 Schedules be marked for identification as:
23		Exhibit No(MDN-3).
24		
25		

1	Q.	Ms. Neyman, for what purpose are you appearing before
2		this Commission today?
3	A.	I am testifying before this Commission on behalf of
4		Gulf Power Company regarding matters related to the
5		Energy Conservation Cost Recovery Clause and to answer
6		any questions concerning the accounting treatment of
7		conservation costs in this filing. Specifically, I
8		will address projections for approved programs during
9		the April, 1998, through March, 1999, recovery period
10		and the results of those programs during the recovery
11		period, October, 1997, through March, 1998, (2 months
12		actual, 4 months estimated).
13		
14	Q.	Would you summarize for this Commission the deviations
15		resulting from the actual expenditures from October
16		through November of the current recovery period?
17	Α.	Projected expenses for the period were \$501,387
18		compared to actual expenses of \$431,406 for a
19		difference of \$69,981 or 13.95% below budget. A
20		detailed summary of these expenses is contained in my
21		Schedule C-3, pages 1 and 3 and my Schedule C-5, pages
22		1 through 18.

23

24

Would you describe the results achieved by the programs 1 0. during the current period, October, 1997, through 2 November, 1997? 3 A detailed summary of results for each program is 4 A. contained in my Schedule C-5, pages 1 through 18. 5 6 Would you summarize the conservation program cost 7 0. projections for the April, 1998 through March, 1999 8 recovery period? 9 Program costs for the recovery period are projected to 10 A. be \$2,571,917. These costs are broken down as follows: 11 depreciation/amortization and return, \$285,826; 12 payroll/benefits, \$1,441,118; materials/expenses, 13 14 \$668,605; advertising, \$294,269; incentives, \$127,033; vehicles, \$54,574; and other, \$40,248; all of which 15 are offset by program revenues, \$339,756. More detail 16 is contained in my Schedule C-2. 17 18 Would you review the expected results for your programs 19 0. during the April, 1998, through March, 1999, recovery 20 21 period? The following is a synopsis of each program goal: 22 A. (1) Residential Energy Audits - 2,000 audits are 23 projected to be completed during the period. 24

These audits emphasize selling customers on making

1	conservation	improvements.

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- (2) Residential Mail-In Audit This is a direct mail energy auditing program. This program builds on the success of Gulf's existing Residential Energy Audit program and will assist in the evaluation of the specific energy requirements of a residential dwelling. Gulf expects 1,000 participants during the projection period.
 - (3) Gulf Express Loan Program This program is no longer accepting new loans. No units are projected during this period. The projected costs are for the administration of existing loans.
 - (4) In Concert With The Environment This energy awareness program is being presented to 8th and 9th grade students as a supplement to the residential audit program. 1,000 students are projected to receive the presentation during this period.
 - (5) Good Cents Environmental Home This program provides residential customers with guidance concerning energy and environmental efficiency in new construction. 5 homes are expected to be completed during the projected period.
- (6) <u>Duct Leakage Repair</u> The object of the program is to provide the customer with a means to identify

1		house air duct leakage and recommend repairs that
2		can reduce customer kWh energy usage and kW
3		demand. 20 homes are projected to participate in
4		this program during the period.
5	(7)	Geothermal Heat Pump - The objective of this
6		program is to reduce the demand and energy
7		requirements of new and existing residential
8		customers through the promotion and installation
9		of geothermal systems. 365 customers are expected
10		to participate in the program during the
11		projection period.
12	(8)	Residential Advanced Energy Management - The
13		program is designed to provide the customer with a
14		means of conveniently and automatically
15		controlling and monitoring his/her energy
16		purchases in response to prices that vary during
17		the day and by season in relation to the Company's
18		cost of producing or purchasing energy.
19		
20		Gulf expects 4,675 customers to participate in
21		this program by the end of this projection period.
22		The startup of the program has been delayed
23		because of several factors. Initially, the program
24		was delayed pending a final order in Docket No.

941172-EG which caused a delay in Gulf's issuance

of an AEM equipment RFP. Once the RFP was issued, 1 the contract negotiation process took longer than 2 expected in order to insure that Gulf received the 3 best possible AEM technological solution and the 4 best price. Gulf signed a contract with 5 Scientific Atlanta (SA) in September, 1996, which called for delivery of prototype units for field 7 testing in March, 1997, and full production units 8 9 in June, 1997. 10 The AEM system is to include field units utilizing 11 a communication gateway, a radio frequency (RF) 12 based Local Area Network (LAN), major appliance 13 load control relays, and a proprietary, 14 programmable thermostat (Superstat), all operating 15 at the customer's home. Early in 1997, SA 16 advised Gulf that the delivery of units would be 17 delayed due to the inability of suppliers to 18 provide some components on the established 19 schedule. Despite Gulf's best efforts to remedy 20 SA's delays and the negotiation of penalties for 21 late delivery, in August, 1997, SA also advised 22

Gulf that no field units utilizing an RF-based LAN

would be available earlier than mid to late 1998.

Gulf negotiated conditions which allowed for an

23

24

interim solution, accompanied by a price reduction 1 due to SA's failure to comply with the RF-based 2 requirements and their overall failure to deliver 3 any usable product within the time provisions 4 specified in the contract. As part of these 5 revised provisions, SA was to deliver field units 6 for testing in mid-October, 1997, with the first batch of production units to be delivered during 8 the first quarter of 1998. 9 10 As of December 31, 1997, the expected prototype 11 units had still not been delivered due to failures 12 of electronic components during testing. SA still 13 contends that production units will be delivered 14 during the first quarter of 1998, but Gulf now 15 believes that there is a reasonable probability 16 that production units will not arrive until second 17 18 quarter, 1998. 19 Despite the unpreventable delays that have 20 occurred, Gulf still believes that the AEM System 21 is a viable program. Gulf is modifying its 22 schedule for market implementation as a result of 23 the delays, and plans to increase the number of 24 units deployed during the years 1999 to 2003 to

1		still accomplish the basic program objective of
2		achieving a total of 80,000 kilowatts of peak
3		demand reduction by year end 2004.
4		
5		Gulf's near term residential conservation goals
6		have been adversely impacted as a result of the
7		delays in implementing AEM, but the process has
8		produced the most cost-effective solution that is
9		currently possible. In the longer term, Gulf
10		fully expects to catch up on a cumulative basis in
11		subsequent periods.
12		
13	(9)	GoodCents Building - This program includes both
14		new and existing commercial customers. 220
15		installations are projected for the period.
16		Implementation strategies will concentrate on
17		architects, engineers, developers and other
18		decision makers in the construction process.
19	(10)	Energy Audits and Technical Assistance Audits -
20		238 audits are projected for the period. Emphasis
21		will be placed on audits for large, complex
22		commercial customers such as hospitals, hotels and
23		office buildings. These audits will focus on the
24		benefits of alternative technologies such as heat

pump water heaters and geothermal technologies.

1	(11)	Commercial/Industrial Mail-In Audit - This is a
2		direct mail energy auditing program. This program
3		builds on the success of Gulf's existing
4		Commercial/Industrial Energy Audit program and
5		will assist in the evaluation of the specific
6		energy requirements of a given business type.
7		Gulf expects 1,100 participants during the
8		projection period.
9	(12)	Solar for Schools Pilot - This program uses "green
10		pricing" to fund solar technologies in public
11		schools. It also incorporates a school-based
12		energy education component as well as enhanced
13		security lighting for schools. During the
14		projection period, Gulf will continue evaluating
15		various implementation options and developing the
16		"green pricing" promotion plan.
17	(13)	Conservation Demonstration and Development -
18		17 research projects have been identified. A
19		detailed description of each project is in
20		Schedule C-2.
21	(14)	Gas Research and Development - Gulf Power has
22		completed research in four individual research and
23		demonstration projects. Therefore, no costs are

projected during this projection period. Project

details are explained in Schedule C-5 in accordance

24

1		with Docket No. 950520-EG, Order No. PSC-95-1146-
2		FOF-EG.
3		
4	Q.	Has Gulf proposed to change any of the projected costs
5		for the period October, 1997, through March, 1998?
6	Α.	Yes. The projected costs for the period October, 1997,
7		through March, 1998, have been revised following Gulf's
8		1998 budget preparations.
9		
10	Q.	Ms. Neyman, what amount does Gulf propose to bill for
11		the months April, 1998, through March, 1999, as Energy
12		Conservation Cost Recovery factors?
13	A.	The factors for these months and how they were derived
14		are detailed on Schedule C-1, page 3 of 3.
15		
16	Q.	Ms. Neyman, does this conclude your testimony?
17	Α.	Yes, it does.
18		
19		
20		
21		
22		
23		
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25		

AFFIDAVIT

STATE	OF	FLORIDA)
)
COUNTY	OF	ESCAMBIA)

Docket No. 980002-EG

Before me the undersigned authority, personally appeared Margaret D. Neyman, who being first duly sworn, deposes and says that she is the Marketing Services Manager of Gulf Power Company, a Maine Corporation, that the foregoing is true and correct to the best of his knowledge, information and belief. She is personally known to me.

Margaret D. Neyman Marketing Services Manager

Sworn to and subscribed before me this ____/\frac{12tt}{day of ganuary____, 1998.

Notary Public, State of Florida at Large



LINDA C. WEBB Netary Public-State of FL Comm. Exp: May 31,1998 Comm. No: CC 362703

Florida Public Service Commission Docket No. 980002-EG Gulf Power Company Witness: Margaret D. Neyman Exhibit No. ____ (MDN-3)

INDEX

Schedule	Number	Title	Pages
C-1		Summary of Cost Recovery Clause Calculation	1-3
C-2		Estimated Program Costs for April, 1998 - March, 1999	4-8
C-3		Conservation Program Costs for October, 1997 - November, 1997 Actual December, 1997 - March, 1998 Estimated	9-15
C-4		Calculation of Conservation Revenues	16
C-5		Program Descriptions and Progress	17-36

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Florida Public Service Commission Docket No. 980002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No.____(MDN-3) Schedule C-1 Page 1 of 3

GULF POWER COMPANY

ENERGY CONSERVATION ADJUSTMENT SUMMARY OF COST RECOVERY CLAUSE CALCULATION

For the Period: April, 1998 Through March, 1999

		\$
1,	Total Program Costs (Schedule C-2, Page 1 of 8, Line 17)	2,571,917
2.	True Up (Schedule C-3, Page 6 of 7)	(809,972)
3.	Total (Line 1 + Line 2)	1,761,945
4.	Cost Subject to Revenue Taxes	1,761,945
5.	Revenue Tax	1.01609
6.	Total Recoverable Cost	1,790,295
	Costs are split in proportion to the current period split of demi- energy-related (90.26%) costs. The allocation of ECCR costs is shown on schedule C-2, page 2 of 8, and is consistent with Order No. PSC-93-1845-FOF-EG.	s between demand and energy
7.	Total Cost	1,790,295
8.	Energy Related Costs	1,615,920
9.	Demand Related Costs (total)	174,375
10.	Demand Costs Allocated on 12 CP	160,962
11.	Demand Costs Allocated on 1/13 th	13,413

GULF POWER COMPANY CALCULATION OF ENERGY & DEMAND ALLOCATION % BY RATE CLASS APRIL 1998 THROUGH MARCH 1999

	A	В	С	D	E	F	G	н	1
Rate Class	Average 12 CP Load Factor at Meter	Apr 98 - Mar 99 Projected KWH Sales at Meter	Projected Avg 12 CP KW at Meter Col B / (8760 hours x Col A	Demand Loss Expansion Factor	Energy Loss Expansion Factor	Apr 98 - Mar 99 Projected KWH Sales at Generation Col B x Col E	Projected Avg 12 CP KW at Generation Col C x Col D	at Generation	Percentage of 12 CP KW Demand at Generation Col G / Total Col G
RS, RST	55.052614%	4,319,238,072	895,6 70	1.1019333	1.0766175	4,600,167,295	986,916.48	46.72295%	57.43452%
GS, GST	57.194949%	237,662,484	47,434.99	1.1019255	1.0766135	255,870,639	52,269.83	2.57088%	3.04189%
SGSD, GSDT	77.730883%	2,067,149,521	303,580.72	1.1016647	1.0764011	2,225,082,018	334,444.16	22.35670%	19.46329%
LP, LPT	83.217644%	1,018,108,770	139,680.84	1.0601470	1.0444167	1,063,329,802	148,061 02	10.68390%	8.61655%
PX, PXT, RTP, CSA	99.981695%	1,595,725,587	182,193.81	1.0313379	1.0235079	1,633,237,745	187,903.38	16.41009%	10.93521%
OS-I, OS-II	296.003708%	79,685,188	3,073.10	1.1020255	1.0766162	85,790,364	3,386.63	0.86198%	0.19709%
OS-III	101.017736%	24,241,321	2,739.39	1.1024447	1.0766529	26,099,489	3,020.03	0.26224%	0.17575%
OS-IV	44.803099%	3,235,069	824.27	1.1024447	1.0766529	3,483,046	908.71	0.03500%	0.05288%
SBS	77.434327%	9,334,487	1,376.11	1.0341119	1.0263949	9,580,870	1,423.05	0.09626%	0.08282%
TOTAL	66.579943%	9,354,380,499	1,576,505.93			9,952,641,268	1.718.333.29	100.00000%	100.00000%

Col A - Average 12 CP load factor based on actual 1995 load research data.

Col C - 8.760 is the number of hours in 12 months.

Florida Public Service Commission Docket No. 980002-EG

CULF POWER COMPANY

ditness: Margaret D. Neyman Exhibit No.____(MDN-3)

Schedule C-1

Page 2 of 3

GULF POWER COMPANY CALCULATION OF ENERGY & DEMAND ALLOCATION % BY RATE CLASS APRIL 1998 THROUGH MARCH 1999

	A	В	С	D	E	F	G	н
Rate Class	Percentage of KWH Sales at Generation	Percentage of 12 CP KW Demand at Generation	Demand /	Allocation 1/13 th	Energy Allocation	Total Conservation Costs	Projected KWH Sales at Meter	Conservation Recovery Factor cents per KWH
RS, RST	46.72295%	57.43452%	\$92,448	\$6,267	\$755,005	\$853,720	4,319,238,072	0.020
GS, GST	2.57088%	3.04189%	4,896	345	41,543	46,784	237,662,484	0.020
GSD, GSDT در	22.35670%	19.46329%	31,329	2,999	361,266	395,594	2,067,149,521	0.019
LP, LPT	10.68390%	8.61655%	13,869	1,433	172,643	187,945	1,018,108,770	0.018
PX, PXT, RTP, CSA	16.41009%	10.93521%	17,602	2,201	265,174	284,977	1,595,725,587	0.018
OS-I, OS-II	0.86198%	0.19709%	317	116	13,929	14,362	79,685,188	0.018
OS-III	0.26224%	0.17575%	283	35	4,238	4,556	24,241,321	0.019
OS-IV	0.03500%	0.05288%	85	5	566	656	3,235,069	0.020
SBS	0.09626%	0.08282%	133	13	1,555	1,701	9,334,487	0.018
TOTAL			\$160,962	\$13,414	\$1,615,919	\$1,790,295	9,354,380,499	

A Obtained from Schedule C-1, page 2 of 3, col H

B Obtained from Schedule C-1, page 2 of 3, col I

C Total from C-1, page 1, line 10 * col E-

D Total from C-1, page 1, line 11 * col A

E Total from C-1, page 1, line 8 * col A

F Total Conservation Costs

G Projected kwh salas for the period April 1998 through March 1999

H Col F/G

Note: Totals may not add due to rounding

GULF POWER COMPANY

ESTIMATED CONSERVATION PROGRAM COSTS For the Period April, 1998 Through March, 1999

TOTAL	339,653	14,203	23,563	19,459	38,193			272,718	569,023	25.54S	6,410	214,080	٥	68,336	2.571,917	۰	2671 817
Program Revenues	•	٥	۰	•	0	0	339,756	0	0	0	0	0	0	0	339,756	0	110 756
***	0	0	0	0	0	0	0	0	40,248	0	0	0	e	0	40,248	0	45.348
Vehicles	975,9	۰	1,271	909	2,101	5.805	15,627	9,572	10,215	0	0	0	0	0		0	77.77
Incentives	0	•	0	0	1,258	125,775	•	0	0	0	0	0	0	0	127,033	0	127 033
Advertaing	102,638	0	0	•	0	153,144	5,031	28,425	5,031	0	0	0	0	0	284,269	0	294 269
Outside Services	0	0	0	0	0	0	•	0	0	0	0	•	0	0	0	0	0
Materials & Expenses	12,739	0.900	6,037	803	2,495	8,050	282,774	8,409	22,520	75,465	803	209,491	0	51,719	668,605	0	668.605
Payrol & Benefits	215,097	7,303	16,255	18,352	32,339	101,541	276,306	226,312	510,009	14,060	5,907	۰	0	17,617	1,441,118	0	1,441,118
Depre/Amort & Return	0	0	0	0	0	0	281,237	0	•	0	0	4,589	0	0	265,620	0	285,826 1,441,118 688,605
Actual	1. Residential Energy Audits	2 Gulf Express	3. In Concert with The Environment	4. Good Canta Environmental	5. Duct Lesisge	6. Geothermal Heat Pump	7. Advanced Energy Menagement	Dis 8. Committed Good Cents Bidg	0 Committed & TAA	10. Commercial Meil In Audit	11. Solar for Schools	12. Research & Development	13. Gas Research	14. Residential Mail in Audit	15. Total All Programs	16. Leek: Bese Rate Recovery	17. Net Program Costs
	-	24	•	•	*0	•	1	-	•	=	-	22	#	Ť	**	-	-

Florida Public Service Commission
Docket No. 980002-EG
GULF POWER COMPANY
Witness: Margaret D. Neyman
Exhibit No.
Schedule C-2
Page 1 of 5

GULF POWER COMPANY

ESTIMATED CONSERVATION PROGRAM COSTS For the Period April, 1998 Through March, 1999

PROGRAMS

1. Residential Energy Audits	APR 28,146	28,145	JUN 28,145	28,145	AUG 28,145	28,145	TOTAL TOTAL	28,145	MOV 28,145	DEC 28,145	JAN 28.848	22	MAR 28,548	E MONTH TOTAL 170,962	TOTAL TOTAL 339,853	COSTS	COSTS COSTS 338,853
2. Gulf Express	1,181	1,180	1,180	1,180	1,180	1,180	7,081	1,180	1,180	1,180	1	1.19	<u>r.</u>	7,122	14,203		14,203
3. In Concert with the Environment	1,952	1,952	1,962	1,952	1,962	1,96,	11,711	1,96,1	1,86,1	1,88,	1,990	2,000	2,000	11,862	23,563		23,563
4 Good Cents Environmental	1,612	1,612	1,612	1,612	1,612	1,611	1.00	1,611	1,61	1,611	1.051	1,852	1,062	9,788	19,450		19,459
5. Duct Leshage	3,164	3,163	3,163	3,163	3,163	3,163	18,679	3,163	3,163	3,163	3,242	3,342	3,241	19,214	38,193		38,193
6. Geothermal Heat Pump	32,657	32,657	32,667	32,657	32,657	32,657	195,942	32,857	32,657	32,657	33,468	33,467	33,467	198,373	394,315		304,315
7. Advanced Energy Management	16,157	19,868	22,311	27,192	32,062	38.922	154,512	41,772	46,610	51,439	PA.721	086,890	271,57	346,707	501,219	250,609	250,610
CTs. Committed Good Cents Bidg	22,587	22,587	22,587	22,587	22,567	22,586	138,621	22,588	22,586	22,586	23,147	23,146	23,146	197,197	272,718		272,718
9 Committed & TAA	48,783	48,783 48,783 48,783 48,783 48,783	48,783	48,783	48,783	48,783	292,698	48,783	48,782	48,782	90,000	20,000	40.078	298,175	588,023		569,023
10. Commercial Med in Audit	7,417	7,417 7,416 7,416 7,416 7,416	7,416	7,416	7,416	7,416	44,497	7.416	7,416	7,410	7,600	7,600	7,800	45,048	80.545		2
11. Solar for Schools	53	531	5	5	ā	2	3,186	2	53	830	3	ž	3	3,224	0.4.0		6,410
12. Research & Development	17,335	17,332	17,329	17, 329 17,327 17	17,325	17,322	103,970	17,320	17,318	17,316	19,367	19,365	19,384	110,110	214,080		214,080
13. Gas Research	0	0	•	0	0	0	0	•	0	0	0	0	0	0	0		•
14. Residential Mail in Audit	8,778		8,778 8,778 8,778	5,778	5,778	5,778	X .00	6,778	5,778	5,778	6,778	8,778	5,778	X,88	66,336		900,336
15. Total All Programs	187,300	187,300 191,004 193,444 198,323 203,191	193,444	196,323	203,181	208,045	1,181,307	212,883	217,728	222,554	222,554 241,580 245,847		250,008	1,380,613	2,571,917	250,509	2,321,306
16. Less. Base Rate Recovery	0	0 0	0	0	0	0	0	•	0	0	0	0	0	0	0	0	•
17. Recoverable Conservation Expenses		191,004	103,444	198,323	203,191	208,045	187,300 181,004 183,444 186,323 203,191 208,045 1,181,307 212,863 217,728 222,554 241,580 246,847 250,008	212,893	217,778	222,554	241,580	245,647	250,008	1,390,610	2,571,017	250,609	2,321,308

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Florida Public Service Commission Docket No. 980002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No._____(MDN-3) Schedule C-2 Page 3 of 5

GULF POWER COMPANY

SCHEDULE OF CAPITAL INVESTMENT, DEPRECIATION AND RETURN Advanced Energy Management For the Period April, 1998 Through March, 1999

Line No.	Description	Beginning of Period	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Total
1.	Investments (Net of Retirements)		416,667	416,667	416,667	416,667	416,667	416,667	2,500,002
2	Depreciation Base			416,667	833,334	1,250,001	1,000,008	2,083,335	
3	Depreciation Expense (A)			0	590	1,771	2,951	4,131	9.443
4	Cumulative Investment	0	0	416,667	833,334	1,250,001	1,666,668	2,083,335	
5	Less: Accumulated Dispreciation				590	2,361	5,312	9,443	
6	Net investment			416,667	832,744	1,247,640	1,661,356	2,073,892	
7.	Average Net Investment		0	416,667	624,706	1,040,192	1,454,498	1,867,624	
8.	Rate of Return / 12 (Including Income Taxes) (B)		0.8906%	0.8906%	0 8906%	0.8906%	0.8906%	0.8906%	
9.	Return Requirement on Average Net Investment			3,711	5,564	9,264	12,954	16,633	48,126
10.	Total Depreciation & Return (Line 3 + 9)		0	3,711	6,154	11,035	15,905	20,764	57,569

Line No.	Description	Beginning of Period	Projected October	Projected November	Projected December	Projected January	Projected February	Projected March	Total
1.	Investments (Net of Retirements)		416,667	416,667	416,664	364,500	364,500	364,500	2,343,498
2	Depreciation Base		2,500,002	2,916,669	3,333,333	3,697,633	4,062,333	4,426,833	
3	Depreciation Expense (A)		5,312	6,492	7,673	0,653	9,960	10,992	49,282
4	Cumulative Investment	2,083,335	2,500,002	2,916,669	3,333,333	3,697,833	4,062,333	4,426,833	
5.	Less: Accumulated Depreciation	9,443	14,755	21,247	28,920	37,773	47,733	58,725	
6	Net investment	2,073,892	2,485,247	2,895,422	3,304,413	3,660,060	4,014,600	4,368,108	
7.	Average Net Investment		2,279,570	2,690,335	3,099,918	3,482,237	3,837,330	4,191,354	
	Rate of Return / 12 (Including Income Taxes) (B)		0.8906%	0.8906%	0.8906%	0.8906%	0 8906%	0 8906%	
9	Return Requirement on Average Net Investment		20,302	23,960	27,608	31,013	34,175	37,328	174,386
10	Total Depreciation & Return (Line 3 + 9)		25,614	30,452	35,281	39,866	44,135	48,320	223,668

Notes

(A) Depreciation Rate of 3.4% Annually

Florida Public Service Commission Docket No. 980002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No.____(MDN-3) Schedule C-2 Page 4 of 5

GULF POWER COMPANY

SCHEDULE OF CAPITAL INVESTMENT, DEPRECIATION AND RETURN Energy Education For the Period April, 1998 Through March, 1999

Line No.	Description	Beginning of Period	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	Total
1.	Investments (Net of Retirements)				0	0	0	0	
2.	Amortization Base		21,139	21,139	21,139	21,139	21,139	21,139	
3.	Amortization Expense (A)		252	252	252	252	252	252	1,512
4.	Cumulative Investment	21,139	21,139	21,139	21,139	21,139	21,139	21,139	
5.	Less: Accumulated Amortization	6,795	7,047	7,299	7,551	7,803	8,055	8,307	
6.	Net Investment	14,344	14,092	13,840	13,588	13,336	13,084	12,832	
7.	Average Net Investment		14,218	13,966	13,714	13,462	13,210	12,958	
8.	Rate of Return / 12 (Including Income Taxes) (B)		0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	
9.	Return Requirement on Average Net Investment		127	124	122	120	118	115	726
10.	Total Amortization & Return (Line 3 + 9)		379	376	374	372	370	367	2,238

Line No.	Description	Beginning of Period	Projected October	Projected November	Projected December	Projected January	Projected February	Projected March	Total
1.	Investments (Net of Retirements)		0	0	0	0	0	0	
2.	Amortization Base		21,139	21,139	21,139	21,139	21,139	21,139	
3.	Amortization Expense (A)		252	252	252	252	252	252	1,512
4.	Cumulative Investment	21,139	21,139	21,139	21,139	21,139	21,139	21,139	
5.	Less: Accumulated Amortization	8,307	8,559	8,811	9,063	9,315	9,567	9,819	
6.	Net Investment	12,832	12,580	12,328	12,076	11,824	11,572	11,320	
7.	Average Net Investment		12,706	12,454	12,202	11,950	11,698	11,446	
8.	Rate of Return / 12 (Including Income Taxes) (B)		0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0 8906%	
9.	Return Requirement on Average Net Investment		113	111	109	106	104	102	645
10.			365	363	361	358	356	354	2,157

(A) 1995 Additions Amortized over 7 Year Period (B) Revenue Requirement Return is 10.6872%

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GULF POWER COMPANY

SCHEDULE OF CAPITAL INVESTMENT, DEPRECIATION AND RETURN Commercial Technology For the Period April, 1998 Through March, 1999

Line No.	Description	Beginning of Period	Projected April	Projected May	Projected June	Projected July	Projected August	Projected September	iotai
1.	Investments (Net of Retirements)				0	0	c	0	
2.	Amortization Base		939	939	939	939	939	939	
3	Amortization Expense (A)		11	11	11	11	11		66
4.	Cumulative Investment	939	939	939	939	939	939	939	
5.	Less: Accumulated Amortization	297	308	319	330	341	352	363	
6.	Net Investment	642	631	620	609	598	587	576	
7.	Average Net Investment		637.00	626.00	615.00	604.00	593.00	582.00	
8.	Rate of Return / 12 (Including Income Taxes) (B)		0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	
9.	Return Requirement on Average Net Investment		6	6	5	5	5	5	32
10.	Total Amortization & Return (Line 3 + 9)		17	17	16	16	16	16	98

Line No.	Description	Beginning of Period	Projected October	Projected November	Projected December	Projected January	Projected February	Projected March	Total
1.	Investments (Net of Retirements)		0	0	0	0	0	0	
2.	Amortization Base		939	939	939	639	939	939	
3.	Amortization Expense (A)		11	11	11	11		11_	66
4.	Cumulative Investment	939	939	939	939	939	939	939	
5.	Less: Accumulated Amortization	363	374	385	396	407	418	429	
6.	Net Investment	576	565	554	543	532	521	510	
7.	Average Net Investment		571	560	549	538	527	516	
8.	Rate of Return / 12 (Including Income Taxes) (B)		0.8906%	0.8906%	0.8906%	0 8906%	0.8906%	0.8906%	
9.	Return Requirement on Average Net Investment			5	5	5	5	5	30
10	Total Amortization & Return (Line 3 + 9)		16	16	16	16	16	16	96

Notes:

(A) 1995 Additions Amortized over 7 Year Period (B) Revenue Requirement Return is 10.6872%

Florida Public Service Commission Docket No. 980002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No. (MDN-3) Schedule C-3 Page 1 of 7

GULF POWER COMPANY

CONSERVATION PROGRAM COST October, 1997 Through November, 1997, Actual December, 1997 Through March, 1998, Estimated

Actual		Capital Return & Depreciation	Payrod & Benefits	Materiels & Expenses	Outside Services	Advertising	Incantives	Vehicles	000	Program Revenues (Credita)	TOTAL
-	eros Energy Audio	STR. COMMISSION			-	-					
Resid		0	46,769		0	15,880	0	336	0		70.71
D EM	mated		81,648			37,503	0	4,532	203		148.0 218.8
c Total	•	۰	128,417	31,962	0	\$3,363		4,000	200		210.0
GATE	дены		10000	111 100000				-	102		
a Ack		8	3,319 4,900			12,086	0	63	0		15.3
6 Est		ŏ	8,219		0	12,000	0	63	0		20,3
e Ad	cost with the Environment	0	3,512	15,192	0	0		0			18.7
b. Eat	meted	0	7,612		0	0		0	0		23.7
e Total		۰	7,014	100,1002							
	nymental Good Cents Home	۰	2,639						٥		2.6
A ACA		ŏ	6,000		ŏ	ő	ě	ō	0	0	6.0
c. Tota		0	0,639	0					٥	0	8.6
Dutt L	equippe .										
. Aca		0	8,330			0		0	0		13.0
a Em			19,330		ő	ő	ő	ő	ě		19.3
200			100000	2	8	100					
Section Act	ermal Heat Pump	0	12,866	5,656		36,903		14			56,6
b Em	mated	0	72,823	(2,316)	. 0	53,342	63,250	2,996			189.5
c. Tota	•	0	65,676	3,542	•	90,145	63,250	3,010	0		240.5
	ced Energy Management	121	-		CA:			0			38.0
a Aca			25,767	(8,762)	7,960	0		3.843			84.0
c Total		0	107,767	2,530	7,950	0		3.843			122 (
	vind Good Cents Bidg	0	67,002	6,126		1,909					74.7
a Aca			\$3,530	(2,248)	6.004	18,777		4.719			110.
c. Tota		0	191,230	2.678	6.064	20,746	0	4.719	0		185.6
Come	WING EA & TAA		10028000	UI Jaan sada	1 1 20	20			0.02	. 4	-1/2/2/2
a Aca		0	102,668 233,691	25, 126 (8,607)	25,911	0	0	11.305	17,710		127.7
c. Tota		ō	336,359		25,911	0		11,385	17,710		407 /
-	vential Med in Audit										
a Aca	-	0	2,010			0	٥	0			5.3
to East		0	(2.010		47,146	0	0	0	0		47.1
200		- 5	-								
Solar I	tor Schools	0	813	91				0			
b Em	mated	0	6,459			0	0	0	9		
c. Tota	•	0	7,072	2,530			0	٥			•
	with & Development										
D Ada	ust End of Use ust Geothermal Heat Pump		0			6	0		0		
C. ACR	PCG	0	0	0	0	0	0	ê	0		
4 AG	usi Desocant usi Energy Education	783		6,555		0		0	0		7.3
f. Ach	al Commercial Technology	25	0	2.173		0	0	0	9		2.3
	ad PJC ad Sirely Loop	0	ő	97	ě	0	0	0	0	0	
i Ach	and Durines	0	0	64		0	0		0		
	all Van Norman all Shores	0	0	29	0	0	ő	ő	ő		
I Ack	and Sheep leve	0	0	84		0		0			
m. Ac	Busi Closed Loop Dentist Last GCCC	0	°	0		0	ě	ő	ő		
a Ad	and HOO Pur	0	0	5,000			0	0			5.0
	Last Joe Ridge	0	0	41		0	0	0	0		
r. Ada	uel Jim Dey uel Burger King	0	0	0					0		
s. Ad	uel Dr. Teylor - Dentist	0	0	0	0	0	0	0	0	0	
u. Act	uel Bay Co. Schoole uel Lave Income Multi-Fam.		0	429							
w Tot	rested	1,770	0	70,241	8	0	0	0	0	0	63,6 78,8
								- 3		7	1000
Gas R	essenth Al		0	26					0		
b. Est	materi	0	0	5,023 5,059	0			0	0	0	5,0 5,0
			v								

talls may not add due to rounding.

Florida Public Service Commission Docket No. 980002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No.____(MDN-3) Schedule C-3 Page 2 of 7

GULF POWER COMPANY

SCHEDULE OF CAPITAL INVESTMENT, DEPRECIATION AND RETURN Advanced Energy Management For the Period October, 1997 Through March, 1998

Line No.		Beginning of Period	Actual October	Actual November	Projected December	Projected January	Projected February	Projected March	Total
1.	Investments (Net of Retirements)		0	٥	0	0	0	0	0
2.	Depreciation Base		0	0	0	0	0	0	
3.	Depreciation Expense (A)		. 0	0	0	0	0	0	0
4.	Cumulative Investment	0	0	0	0	0	0	0	
5.	Less: Accumulated Depreciation	0	0	0	0	0	0	0	
6.	Net Investment	0	0	0	0	0	0	0	
7.	Average Net Investment		0	0	0	0	0	0	
8.	Rate of Return / 12 (Including Income Taxes) (B)		0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	
9.	Return Requirement on Average Net Investment		0	0	0	0	0	0	0
10.	Total Depreciation & Return (Line 3 + 9)		0	0	0	0	0	0	0

Notes:

(A) Depreciation Rate of 3.4% Annually

Florida Public Service Commission Docket No. 980002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No.____(MDN-3) Schedule C-3 Page 3 of 7

GULF POWER COMPANY

SCHEDUL® OF CAPITAL INVESTMENT, DEPRECIATION AND RETURN Energy Education For the Period October, 1997 Through March, 1998

Line No.	Description	Beginning of Period	Actual October	Actual November	Projected December	Projected January	Projected February	Projected March	Total
1.	Investments (Net of Retirements)		0	0	9	0	0	0	
2.	Amortization Base		21,139	21,139	21,139	21,139	21,139	21,139	
3.	Amortization Expense (A)		252	252	252	252	252	252	1,512
4.	Cumulative Investment	21,139	21,139	21,139	21,139	21,139	21,139	21,139	
5.	Less: Accumulated Amortization	5,285	5,537	5,789	6,041	6,293	6,545	6,797	
6.	Net Investment	15,854	15,602	15,350	15,098	14,846	14,594	14,342	
7.	Average Net Investment		15,728	15,476	15,224	14,972	14,720	14,468	
8.	Rate of Return / 12 (Including Income Taxes) (B)		0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	
9.	Return Requirement on Average Net Investment	•	140	138	136	133	131	129	807
10	Total Amortization & Return (Line 3 + 9)		392	390	388	385	383	381	2,319

Notes

(A) 1995 Additions Amortized over 7 Year Period; No additions in 1996 and 1997

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GULF POWER COMPANY

SCHEDULE OF CAPITAL INVESTMENT, DEPRECIATION AND RETURN Commercial Technology

For the Period October, 1997 Through March, 1998

Line No.	Description	Beginning of Period	Actual October	Actual November	Projected December	Projected January	Projected February	Projected March	Total
1.	Investments (Net of Retirements)		0	0	0	0	0	0	
2.	Amortization Base		939	930	939	939	935	939	
3.	Amortization Expense (A)		11	- 11	11	11	11	11	66
4.	Cumulative Investment	939	939	939	939	939	939	939	
5.	Less: Accumulated Amortization	235	246	257	268	279	290	301	
6.	Net Investment	704	693	682	671	660	649	638	
7.	Average Net Investment		699	688	677	666	655	644	
8.	Rate of Return / 12 (Including Income Taxes) (B))	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	
9.	Return Requirement on Average Net Investment		6	6	6	6	6	6	36
10.	Total Amortization & Return (Line 3 + 9)		17	17	17	17	17	17	102

(A) 1995 Additions Amortized over 7 Year Period; No additions in 1996 and 1997

Florida Public Service Commission Docket No. 980002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No._____(MDN-3) Schedule C-3 Page 5 of 7

GULF POWER COMPANY

CONSERVATION PROGRAM COSTS FOR October, 1997 Through November, 1997 Actual December, 1997 through March, 1998 Estimated

			ACTUAL				ESTIMATE			ACTUAL 6
		OCT	NOV	TOTAL	DEC	JAN	FEB	MAR	TOTAL	ESTIMATED
1,	Residential Energy Audits	37,891.71	32,873.78	70,765.49	37,022.00	37,022.00	37,022 00	37,021.51	148,087.51	218,853.0
2.	Gulf Express	10,734.50	4,633.55	15,368.05	1,250.00	1,250.00	1,250.00	1,249.95	4,999.95	20,368.0
3.	In Concert with the Environment	16,869.40	1,835.02	18,704.42	1,250.00	1,250.00	1,250.00	1,249.58	4,999.58	23,704.0
4.	Good Cents Environmental	1,311.19	1,327.36	2,638.55	1,500.00	1,500.00	1,500.00	1,500.45	6,000.45	8,639.0
5.	Duct Leakage	3,109.25	3,220.77	6,330.02	3,250.00	3,250.00	3,250.00	3,249.98	12,999.98	19,330.0
6.	Geothermal Heat Pump	36,057.86	19,571.70	55,629.56	47,499.00	47,499.00	47,499.00	47,498.44	189,995.44	245,625.0
7.	Advanced Energy Management	19,985.17	18,073.52	38,058.69	21,008.00	21,008.00	21,008.00	21,007.31	84,031.31	122,090.0
8.	Comm/Ind Good Cents Bidg	35,940.32	38,846.39	74,786.71	27,713.00	27,713.00	27,713.00	27,711.29	110,850.29	185,637.0
9.	Comm/Ind E.A. & T.A.A.	61,891.10	65,904.98	127,796.08	70,022.00	70,022.00	70,022 00	70,023 92	280,089.92	407,886.0
0.	Commercial Mail In Audit	2,262.58	3,037.25	5,299.63	10,462.00	10,462.00	10,462.00	10,460.17	41,846.17	47,146.0
1.	Solar for Schools	326.20	378.40	704.60	2,224.00	2,224.00	2,224 00	2,225.40	8,897.40	9,602.0
12.	Research & Development End Use Profiling Geothermal Heat Pump FCG Desiccant Dehum. H. P. Energy Education Commercial Technology PJC Slinky Loop Mat H. P. Dunes Van Norman Shores Sleep Inn Closed Loop Dentist GCCC H2O Pur. Joe Ridge Jim Day Burger King Dr. Taylor - Dentist Bay Co. Schools Low Income Multi-Fam.	0.00 0.00 0.00 3,654.70 1.098.63 0.00 65.18 5.96 29.27 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	0.00 0.00 0.00 0.00 3,683.07 1,108.67 0.00 31.50 61.68 0.00 0.00 0.00 0.00 0.00 41.42 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 7,337.77 2,207.30 0.00 96.68 67.64 29.27 0.00 83.57 0.00 0.00 41.42 0.00 0.00 0.00 0.00	15,885 00	15,885.00	15.885.00	15,885 46	63,540.46	78,829.0
13.	Gas Research	35.53	0.00	35.53	1,256.00	1,256.00	1,256.00	1,255.47	5,023.47	5,059.00
4.	Total All Programs	236,310.82	195,095.25	431,406.07	240,341.00	240,341.00	240,341.00	240,338.93	961,361.93	1,392,768.00
5.	Less: Base Rate Recovery	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Net Recoverable Expenses	236 310 82	195,095.25	431,406,07	240 341 00	240.341.00	240.341.00	240,338.93	961,361.93	1,392,768.00

GULF POWER COMPANY

ENERGY CONSERVATION ADJUSTMENT For the Period: October, 1997 through March, 1998

c	onservation Revenues	ACTUAL OCTOBER	ACTUAL NOVEMBER	ESTIMATED DECEMBER	JANUARY	ESTIMATED FEBRUARY	MARCH	TOTAL
1	a. Residential Conservation Audit Fees b. (Other Fees) c:	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
2	Conservation Adjustment Revenues	235,022.23	215,381.88	240,520.28	260,411.93	211,380.83	223,612.20	1,386,329.36
3	Total Revenues	235,022.23	215,381.88	240,520.28	260,411.93	211,380.83	223,612.20	1,386,329.36
4	Adjustment not Applicable to Period - Prior True Up	27,962.42	27,962.42	27,962.42	27,962.42	27,962.42	27,962.42	167,774.52
<u></u> 5	Conservation Revenues Applicable to Period	262,984.65	243,344.30	268,482.70	288,374.35	239,343.25	251,574.62	1,554,103.88
4 6	Conservation Expenses (Form C-3 Page 3 of 5)	236,310.82	195,095.25	240,340.48	240,340.48	240,340.43	240,340.48	1,392,768.00
7	True Up this Period (Line 5 minus Line 6)	26,673.83	48,249.05	28,142.22	48,033.87	(997.23)	11,234.14	161,335.88
8	Interest Provision this Period (Page 10, Line 10)	3,654.68	3,738.81	3,803.60	3,868.20	3,865.53	3,777.52	22,708.34
9	True Up & Interest Provision Beginning of Month	793,702.34	796,068.43	820,093.87	824,077.27	848,016.92	822,922 80	793,702.34
1	Prior True Up Collected or Refunded	(27,962.42)	(27,962.42)	(27,962.42)	(27,962.42)	(27,962.42)	(27,962.42)	(167,774.52)
	End of Period- Net True Up	796,068.43	820,093.87	824,077.27	848,016.92	822,922.80	809,972.04	809,972.04

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ENERGY CONSERVATION ADJUSTMENT For the Period: October, 1997 through March, 1998

Inte	erest Provision	ACTUAL OCTOBER	ACTUAL NOVEMBER	ESTIMATED DECEMBER	JANUARY	ESTIMATED FEBRUARY	ESTIMATED	TOTAL
1.	Beginning True up Amount	793,702.34	796,068.43	820,093.87	824,077.27	848,016.92	822,922.80	
2.	Ending True up before Interest	792,413.75	816,355.06	820,273.67	844,148.72	819,057.27	806,194.52	
3.	Total beginning & ending	1,586,116.09	1,612,423.49	1,640,367.54	1,668,225.99	1,667,074.19	1,629,117.32	
4.	Average True up Amount	793,058.05	806,211.75	820,183.77	834,113.00	833,537.09	814,558.66	
 5.	Interest Rate First Day Reporting Business Month	5.5300	5.5300	5.5300	5.5300	5,5300	5.5300	
6.	Interest Rate First Day Subsequent Business Month	5.5300	5.6000	5.6000	5.6000	5.6000	5.6000	
7.	Total of Lines 5 and 6	11.0600	11.1300	11.1300	11.1300	11.1300	11.1300	
8.	Average Interest rate (50% of Line 7)	5.5300	5.5650	5.5650	5.5650	5.5650	5.5650	
9.	Monthly Average Interest Rate Line 8 \ 12	0.004608	0.004638	0.004638	0.004638	0.004638	0.004638	
10.	Interest Provision (line 4 X 9)	3,654.68	3,738.81	3,803.60	3,868.20	3,865.53	3,777.52	22,708.34
		**********						**********

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GULF POWER COMPANY

CALCULATION OF CONSERVATION REVENUES For the Period: October, 1997 Through March, 1998

		Month	MWH Sales (Net of 3rd Party)	Base Revenue (\$/KWH)	Net of Revenue Taxes (\$)
	1.	10/97	642,482	y = 3	235,022.23
٠	2.	11/97	603,881		215,381.88
	3.	12/97	718,043		240,520.28
	4.	01/98	776,009	•	260,411.93
	5.	02/98	632,113		211,380.83
	6. Actua	03/98 al Data	669,431		223,612.20

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Program Description and Progress

Program Title: Residential Energy Audits

Program Description: This program consists of two types of audits: (1) Class A Energy Conservation Audits and (2) centsable Energy checks, a walk-through audit. Both of these audits are performed on-site and involve assisting the customer in upgrading the thermal and equipment efficiencies in their homes as well as lifestyle measures and low or no cost improvements.

Program Projections: For the period April, 1998, through March, 1999, we expect to achieve 2,000 audits and incur expenses totaling \$339,853.

Program Accomplishments: 361 audits were conducted during the period compared to a budget of 500 for a deviation of 139 audits.

Program Fiscal Expenditures: Actual expenses were \$70,765 compared to a budget of \$72,086 for a difference of \$1,321 or 1.8% below budget.

Program Progress Summary: Since the approval of this program Gulf has performed 123,917 residential energy audits. This is a result of Gulf's promotional campaign to solicit energy audits as well as the overall rapport established with its customers as the "energy experts" in Northwest Florida.

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Program Description and Progress

Program Title: Residential Mail-In Audits

Program Description: The Residential Mail-In Audit Program is a direct mail energy auditing program. This program will supplement Gulf's existing Residential Energy Audit program and will assist in the evaluation of the specific energy requirements of a residential dwelling. Homeowners complete an audit questionnaire on their own or may request the assistance of a Gulf Power representative. This questionnaire asks customers about their energy consuming equipment or appliances, square footage, and other details regarding their lifestyles. The audit results package will be returned to the customer and will include targeted, timely information about energy conservation opportunities specific to each dwelling.

Program Projections: For the period April, 1998, through March, 1999, we expect to achieve 1,000 audits and incur expenses totaling \$69,336.

Program Accomplishments: Eleven audits were conducted using this process during the reporting period.

Program Fiscal Expenditures: This is a new program that was approved on August 5, 1997. During this period, expenses to support the few audits performed were minimal and were captured under the Residential Audit Program. Account numbers and reporting mechanisms have now been established for this mail-in program.

Program Progress Summary: This program was approved on August 5, 1997. There have been no activities at this point.

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Program Description and Progress

Program Title: Gulf Express Loan Program

Program Description: The objective of this program was to encourage and achieve energy conservation. The program provided below market interest rates from participating banks to customers as an incentive to install energy conservation features in their homes.

Program Projections: This program is no longer accepting new loans. Program projections will no longer be made for this program.

Program Accomplishments: There were no new loans during this period. New loans in this program were discontinued as of second quarter, 1997.

Program Fiscal Expenditures: Forecasted expenses were \$40,358 compared to actual expenses of \$ 15,368 resulting in a deviation of \$24,990 under budget. This program has been re-evaluated and has been discontinued. All future expenses will be for the administration of existing loans.

Program Progress Summary: During the implementation of the permanent loan program, Gulf completed 1,953 Gulf Express Loans.

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Program Description and Progress

Program Title: In Concert With The Environment

Program Description: In Concert With The Environment is an environmental and energy awareness program that is being implemented in the 8th and 9th grade science classes. The program shows students how everyday energy use impacts the environment and how using energy wisely increases environmental quality.

Program Projections: In Concert With The Environment is projected to be presented to 1,000 students during the period. We expect to incur \$23,563 in total expenses.

Program Accomplishments: In Concert With The Environment was not presented to any students during the months of October and November, 1997.

Program Fiscal Expenditures: Expenses for the 2 months ending November, 1997, are \$18,704 compared to a budget of \$22,058. This results in a deviation of \$3,354 or 15.2% under budget.

Program Progress Summary: Since the beginning of the program, 4,378 students have participated in the program.

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Program Description and Progress

Program Title: Good Cents Environmental Home

Program Description: Good Cents Environmental Home Program provides residential customers with guidance concerning energy and environmental efficiency in new construction. The program promotes energy-efficient and environmentally sensitive home construction techniques by evaluating over 500 components in six categories of design construction practices.

Program Projections: Gulf projects 5 Good Cents
Environmental Homes to be completed during the April, 1998, to March, 1999, projection period and the program to incur \$19,459 in expenses. During this period, Gulf will continue education and training efforts for our own personnel and our trade allies in order to maintain its availability to builders.

Program Accomplishments: During this recovery period, no Good Cents Environmental Homes were constructed. This program was approved in October, 1996, as part of the conservation programs in Gulf's Demand-Side Management Plan, Docket 941172-EI. However, it has experienced very little acceptance with builders because of added cost of materials, availability problems with materials, and current public attitudes toward environmental issues. Gulf Power will maintain the availability of this program to our builders and customers, however, starting in 1998, we will not actively advertise and promote this program.

Program Fiscal Expenditures: Expenses for the 2 months ending November, 1997, are \$2,639 compared to a budget of \$20,046. This results in a deviation of \$17,407 or 86.8% below budget.

Program Progress Summary: Ten homes have been certified to meet the Good Cents Environmental Home standards.

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Program Description and Progress

Program Title: Duct Leakage Repair

Program Description: This program design results from Gulf Power's 1992 HVAC Duct and Infiltration (Blower Door) Pilot Program. The object of the program is to provide the customer with a means to identify house air duct leakage and recommend repairs that can reduce customer kWh energy usage and kW demand.

Program Projections: Gulf estimates that 20 customers will participate in the Duct Leakage Repair program during the April, 1998, to March, 1999, time period and that it will incur \$38,193 in expenses. Gulf's program activities will include promotion, education, training and testing for HVAC dealers and builders as well as customers in new and existing homes.

Program Accomplishments: Gulf has provided demonstrations and training to builders, dealers and homeowners regarding duct leakage and duct testing methods and procedures during this period. One customer participated in the Duct Leakage Repair program during this period.

Program Fiscal Expenditures: Projected expenses were \$12,540 compared to actual expenses of \$6,330 for a deviation of \$6,210 below goal. This program is below goal for October and November, 1997, due to lower than expected participation by HVAC dealers and a lack of perceived need and benefit by customers.

Program Progress Summary: Program activities have related to education, training, and program development. Since the program's beginning, 11 customers have participated in the program.

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Program Description and Progress

Program Title: Geothermal Heat Pump

<u>Program Description</u>: The objective of this program is to reduce the demand and energy requirements of new and existing residential customers through the promotion and installation of geothermal systems.

Program Projections: Gulf estimates the installation of 365 units during this projection period and expenses of \$394,315. Gulf's program implementation will include promotion, education, training, and guaranteed heating and cooling costs for new and existing home customers. Gulf's program also offers a \$500 incentive to multi-family customers.

Program Accomplishments: During this recovery period, 18 Geothermal Heat Pump units were installed compared to a budget of 33 units.

Program Fiscal Expenditures: Expenses were projected to be \$80,904 compared to actual expenses of \$55,630 for a deviation of \$25,274 or 31.2% below budget.

Program Progress Summary: To date, 460 units have been completed.

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Program Description and Progress

Program Title: Advanced Energy Management

Program Description: The program is designed to provide the customer with a means of conveniently and automatically controlling and monitoring his/her energy purchases in response to prices that vary during the day and by season in relation to the Company's cost of producing or purchasing energy.

Program Projections: During this projection period, 4,675 customers are expected to participate in this program. The program expenses are projected to be \$281,237 in depreciation and amortization; \$276,306, payroll; \$262,774, materials; \$5,031, advertising; and \$15,627, vehicles. These expenses will be offset by projected program revenues of \$339,756.

Program Accomplishments: Gulf has experienced delays in receiving working prototypes and production equipment from the vendor. To date, no production units have been installed.

Program Fiscal Expenditures: This program has projected expenses of \$53,480 for the period October through November, 1997 with actual expenses of \$38,059. This results in a deviation of \$15,421 or 28.8% below budget. The program is below budget due to the delay in receiving the prototype and production units from the vendor. However, Gulf expects to catch-up on a cumulative basis as the program progresses.

Program Progress Summary: Equipment and installation is expected to commence late in the second quarter of 1998.

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Program Description and Progress

Program Title: Good Cents Building

Program Description: This program is designed to educate non-residential customers on the most cost-effective methods of designing new and improving existing buildings. The program stresses efficient heating and cooling equipment, improved thermal envelope, operation and maintenance, lighting, cooking and water heating. Field representatives work with architects, engineers, consultants, contractors, equipment suppliers and building owners and occupants to encourage them to make the most efficient use of all energy sources and available technologies.

Program Projections: For the period April, 1998, through March, 1999, we expect to achieve 220 Good Cents Building and incur expenses totaling \$272,718.

Program Accomplishments: Our goal during the current period was 39 installations compared to actual installations of 29 for a difference of 10 below goal. This program is below goal due to a slow down in building during the last quarter of the year.

Program Fiscal Expenditures: Forecasted expenses were \$61,146 compared to actual expenses of \$74,787 for a deviation of \$13,641 over budget. This program is over budget on expenses due to customers requesting additional information regarding the Good Cents Building Program.

<u>Program Progress Summary</u>: A total of 7,241 commercial buildings have qualified for the Good ¢ents certification since the program was developed in 1977.

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Program Description and Progress

Program Title: Energy Audits and Technical Assistance Audits

Program Description: This program is designed to provide professional advice to our existing commercial and industrial customers on how to reduce and make the most efficient use of energy. This program covers the smallest commercial customer, requiring only a walk-through survey, to the use of computer programs which will simulate several design options for very large energy intensive customers. The program is designed to include six month and annual follow-ups with the customer to verify any conservation measures installed and to reinforce the need to continue with more conservation efforts.

Program Projections: For the period, April, 1998 through March, 1999, we expect to achieve 238 audits and incur expenses totaling \$589,023.

Program Accomplishments: During this period the goal was 61 while actual results were 29 for a difference of 32 below goal. This difference is attributed to fewer customer requests for Energy Audits.

Program Fiscal Expenditures: Forecasted expenses were \$134,350 compared to actual expenses of \$127,796 for a deviation of \$6,554 under budget. This program is under budget due to fewer customer requests for Energy Audits.

Program Progress Summary: A total of 10,776 EA/TAA's have been completed since the program started in January, 1981. These audits have ranged from basic walk-through type for some commercial customers to sophisticated technical assistance audits for other commercial and industrial customers.

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Program Description and Progress

Program Title: Commercial Mail-In Audit Program

Program Description: The Commercial Mail-In Audit Program is a direct mail energy auditing program. This program will supplement Gulf's existing Commercial/Industrial Energy Audit program and will assist in the evaluation of the specific energy requirements of a given business type. Businesses complete an audit questionnaire on their own or may request the assistance of a Gulf Power representative. This questionnaire asks customers about their energy consuming equipment or appliances, square footage, hours of operation and other details regarding their business operations. The audit results package will be returned to the customer and will include targeted, timely information about energy conservation opportunities specific to each business type and geographic area.

<u>Program Projections</u>: Gulf expects to have 1,100 customers participate in the Commercial Mail-in Audit during the period and incur expenses of \$89,545.

<u>Program Accomplishments</u>: In this period, 259 mail-in audits have been completed compared to a budget of 166. This program is over goal due to the high degree of acceptance of the mail-in audit program.

Program Fiscal Expenditures: This program incurred actual expenses of \$5,300 compared to a budget of 17,778 for a deviation of 12,478 or 70% under goal. This program is under budget in expenses due to a delay in receiving invoices for program materials.

Program Progress Summary: This program was approved by the FPSC on January 7, 1997, Docket No. 960897-EI. To date, 572 mail-in audits have been completed.

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Program Description and Progress

Program Title: Solar for Schools Pilot

Program Description: Gulf Power is working with the Florida Energy Extension Service on the Solar for Schools Program design and implementation. The program combines the installation of solar technologies in participating school facilities with energy conservation education of students.

Program Projections: During the projection period, Gulf will be evaluating various implementation options and continuing to develop the "green pricing" promotion plan.

Program Accomplishments: During the period, Gulf continued evaluating various implementation options and developed the "green pricing" billing mechanism. The initial "green pricing" solicitation began during September, 1996. One middle school is participating in the program and the optional "green pricing" billing mechanism has resulted in 403 customers participating with \$10,506 being received program-to-date.

Program Fiscal Expenditures: Projected expenses for the period were \$3,162 compared to actual expenses of \$705 for a deviation of \$2,457 below goal. This program is below goal due to the various implementation options being evaluated.

Program Progress Summary: Gulf Power worked with the Florida Energy Extension Service on a prototype Solar for Schools installation at the Ferry Pass Middle School in Pensacola, FL. The installation is completed. Experience gained at this site will be used to design future Solar for Schools installations.

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Program Description and Progress

Program Title: Conservation Demonstration and Development

Program Description: A package of conservation programs was approved by the FPSC in Order No. 23461 for Gulf Power Company to explore the development of a program to pursue research, development, and demonstration projects designed to promote energy efficiency and conservation. This program serves as an umbrella program for the identification, development, demonstration and evaluation of new or emerging end-use technologies.

Program Accomplishments:

Geothermal Heat Pump - A Water Furnace geothermal heat pump (AT034) with heat recovery for domestic hot water is being monitored on a 2333 sq. ft. Good Cents home. In addition, the builder installed a heat pump swimming pool heater using the same loop system as the house heat pump. The electric water heater, with heat recovery, is currently monitored for energy/demand consumption.

This project will produce actual detailed data on the energy and demand requirements for heating and cooling a Good Cents home with a geothermal heat pump. This data will provide energy and demand comparisons to computerized estimates and other fuels and or to air-to-air heat pumps. Monitoring the heat pump pool heater will provide data showing the impact of this type equipment on energy and demand requirements when it is installed on the same closed-loop system.

Plorida Coordinating Group Research and Development - Gulf Power Company is actively participating in a research initiative commissioned by the Florida Coordinating Group Conservation Steering Committee, formed to evaluate and research demand side management measures. While this is an on-going research project, there were no expenses or activities for this project during this period.

The Efficiency Store - Energy Education - Is intended to provide customers with improved interest, awareness, and understanding of energy efficient technologies. The objective is to display and demonstrate those technologies that are designed to promote energy efficiency. Customer

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research will be conducted the last quarter of 1996 and the first quarter of 1997.

The Efficiency Store - Commercial Technology Demonstration is intended to provide commercial customers with an avenue to energy efficient technologies. The objective of the store is to actually display and demonstrate those technologies that yield energy savings and benefits to customers. The customer will benefit through the convenience of one location for these demonstration needs and the ability to view new technologies in full use. Customer research will be conducted the last quarter of 1996 and first quarter of 1997.

slinky Mat Loop Heat Pump - This type of ground loop design, "slinky loop" or sometimes referred to as a "slinky mat loop", has not been installed in Florida to our knowledge. The system consists of a 2.3 ton Water Furnace geothermal heat pump (AT028) a 2000 square foot home tied to 1800 feet of 3/4 inch polyethylene pipe 5 to 6 feet below grade. The mat loop is designed as 3 - 100 foot trenches with 600 feet of pipe per trench.

One objective of this project will be to determine if this ground loop performs as well as the most common "vertical loop" in extracting and rejecting heat from the earth Another objective of this project is to determine the cost reduction potential of this type of loop. The projected savings on a "slinky loop" installation versus a vertical loop installation for the same unit type is \$1,000. If the unit performs, the cost reduction should encourage increased geothermal installations.

This project will also provide performance results associated with kwh, kW demand, ground source efficiency, supply/return water temperatures and hot water recovery kwh/kW reduction, with indoor/outdoor temperature monitoring(wet bulb, dry bulb, relative humidity).

Closed Loop - Dentist Office - Schwartz Dentist Office
This commercial project is to introduce and demonstrate
geothermal technology benefits. This is a new construction
general office building application to be monitored in
conjunction with the Geothermal Heat Pump Consortium. It
consists of 10 tons of geothermal equipment connected to an
underground closed loop piping system. The site also

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includes a hot water recovery unit to provide hot water needs.

Closed Loop - Hotel - Sleep Inn, hospitality/hotel
This application is for monitoring heating, cooling, and
water heating costs. This includes 10 tons for heating and
cooling in the office/lobby area and room/laundry hot water
need provided by a geothermal heat pump water heater with an
efficiency rating of 10.

Van Norman Project - Is a triple function Nordyne heat pump providing heating, cooling, and water heating on demand. The heat pump compressor has a water heating mode. The total house, water heater, air handler and compressor are being monitored. Also, monitoring includes air temperatures, water temperatures, and gallons of hot water. Additional monitoring of various modes of operation is planned when Gulf receives the needed special equipment from the manufacturer.

The Shores - The Shores is a Gulf-front condominium complex consisting of 52 units. The existing structure was damaged during the storm surge caused by Hurricane Opal. The damage offered the opportunity to install geothermal equipment and avoid the frequent replacement of outdoor air cooled equipment every four to six years. This replacement is necessitated by the salt spray/corrosion effects of the coastal environment.

The group common loop is installed consisting of one pump continuously circulating water avoiding the need for individual (pump) flow centers. The common loop option, combined with a volume purchase of all associated equipment, materials and labor, results in a substantial reduction in installation costs. The shared common loop (pipe/bore feet) has been designed at 13.5 percent less than that which would be required for individual unit installations. Gulf Power will be evaluating the common loop design as its application benefits versus individual demand pumping.

Funding in the amount of \$15,000 has been received from the Geothermal Heat Pump Consortium to cover engineering costs for this unique residential project. Gulf Power completed heat gain/loss calculations and has coordinated manufacturer/contractor support.

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The Dunes - This project monitors two heat pump water heaters in a hotel. The installation is now complete and operational data is being collected. Preliminary results will be available during the 3rd quarter, 1997. In this project, the Heat Pump Water Heaters are expected to offset the KW demand of existing water heaters and to provide air conditioning to the laundry area.

Jim Day Project - Is a geothermal system which provides heating and cooling in a residential environment. This project also includes a geothermal heat pump water heater. The indoor air temperature, relative humidity, as well as ground loop temperatures are monitored along with the kilowatt hour usage for the geothermal system. Additionally, the geothermal heat pump water heater's water temperature is monitored as well as the kilowatt hour usage, water consumption, and ground loop temperatures.

Joe Ridge Project - Is a residential study which includes a geothermal heat pump with a built in heat recovery unit, a geothermal pool heater and a conventional air to air heat pump. This project was designed to study the efficiency of a geothermal pool heater and the built in heat recovery unit. The indoor air temperature, relative humidity, kilowatt hour consumption, water consumption and ground loop temperatures are monitored. Additionally, the pool temperatures and water heating temperatures are included in the study.

Bay County Schools - Lucille Moore Elementary - Is a comparative study designed to illustrate the efficiency and demand reduction versus the conventional 10 S.E.E.R. air source systems. One six ton geothermal unit and one six ton air to air heat pump was installed in identical instructional areas in an elementary school. This study monitors the demand and kilowatt hour consumption. Also the environmental issues such as temperature and humidity are monitored as well. This study will also determine the reliability and maintenance reductions associated with the geothermal systems.

Low Income Multi-Family Housing Project - This is the first low income CDD project associated with Gulf Power Company. This project was designed to illustrate the efficiency of the geothermal systems compared to the

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existing heating and cooling systems. The project will demonstrate the reduction in maintenance cost to the facility and improve the quality of life for the tenants. This comparative study includes: three apartments retrofitted with geothermal equipment versus three identical structures with the existing heating and cooling equipment. KWh and water heating consumption is monitored for the comparison. Further, the indoor temperatures and ground loop temperatures are monitored also.

H20 Purification This project is designed to test the reliability of ozone as an alternative to chlorine as a disinfectant. The ozone alternative is environmentally sensitive and would allow Panama City to reduce the amount of chlorine kept in storage. The ozone project will test the different types of installation schemes as well as the optimum ozone dosages needed to remove hydrogen sulfide gas and tannic acid through ozone injection.

Burger King - Is a comparative study between gas fryers and electric fryers and the effects on the cooking environment and energy consumption. Monitored equipment in the two Burger King's include: air conditioning, indoor temperatures, relative humidity, kWh, kW demand and of course the fryers. This study will determine which fryer reduces heat within the cooking environment and reduces consumption on the total facility.

Dr. Taylor - This commercial project is also a comparative study designed to illustrate the reduction of kW demand between geothermal heat pumps and air to air heat pumps. Dr. Taylor's office is located next to Dr. Schwartz's office (previously mentioned this report). The two offices were constructed to the exact same specification. The general office building includes 10 tons of high efficient air to air heat pumps and hot water heating to be examined.

Program Fiscal Expenditures: Program expenses were forecasted at \$34,978 compared to actual expenses of \$15,289 for a deviation of \$19,689 under budget. Expenses are under budget due to over-estimating project costs and having projects that required start-up costs but have no expenses on a regular monthly basis. Project expenses were as follows: Efficiency Store - Energy Education, \$7,338; Efficiency Store - Commercial Technology, \$2,208; Slinky

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Loop Mat Heat Pump, \$97; Van Norman project, \$29; The Sleep Inn project, \$84; The Dunes, \$68; H2O Purification, \$5,000; Joe Ridge, \$41; Low Income Multi-family, \$425.

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Program Description and Progress

Program Title: Gas Research and Development

Program Description: Gulf Power's Gas Research and Development plan contains four individual research and demonstration projects. These are:

Triathlon Gas Heat Pump - a residential research project intended to determine long-term system performance, technical feasibility, and cost-effectiveness of engine driven gas heat pumps. Anticipated project duration is 48 months. This project is being conducted as part of an Electric Power research Institute (EPRI) Tailored Collaboration Project with the Southern Electric System. although transferability is not within the scope of the EPRI project, Gulf believes that the combination of field and lab tests under various conditions should provide sufficient information to characterize the unit performance for various ambient condition. Gulf's cost of the project is \$6,000 or an 8.8% share.

Gas Engine Driven Chiller - a commercial/industrial project intended to determine the actual operating characteristics and cost-effectiveness of engine driven chillers. The project is being conducted by the Southern Electric System in cooperation with the U.S. Department of Energy and the ambient summer conditions in Atlanta, Georgia are transferable to Gulf's territory. Gulf's 8.8% share of the cost is \$500.

Dual Fuel Heat Pump Evaluation - a commercial/industrial project intended to determine the gas and electric energy consumption and cost effectiveness. The project is being conducted by the Southern Electric System in a climate area adjacent to Gulf's service area and therefore transferability of results will not be an issue. Gulf's 8.8% share of the cost is \$1,000.

Gas Fired Cogeneration Plant - Tyndall Air Force Base (AFB), located in Panama City, Florida, is in the process of constructing a 500 kW gas fired cogeneration plant. Gulf proposes to fund a monitoring study of the AFB's operational plant to determine cost-effectiveness of utilizing gas technology for cooling, hot water and electric production. The plant will be instrumented and data will be collected to

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determine the efficiency of the overall process. Gulf estimates that the cost of this study will not exceed \$15,000.

Program Fiscal Expenditures: Program expenses were projected to be \$1,666 compared to actual expenses of \$36.

Program Accomplishments: The gas research projects have been completed. Final reports have been sent to the FPSC for all projects except the Triathalon Gas Heat Pump. The final report for the Triathalon Gas Heat Pump is expected to be completed and in final report form during third quarter of 1998.