One Energy Place Pensacola, Florida 32520

850.444.6111



May 13, 1999

Ms. Blanca S. Bayo, Director Division of Records and Reporting Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee FL 32399-0870

Dear Ms. Bayo:

RE: Docket No. 990002-EG

Enclosed for official filing in the above referenced docket are an original and ten (10) copies of Gulf Power Company's Conservation Cost Recovery True-up Filing which consists of the testimony and exhibits of Margaret D. Neyman.

Sincerely,

Dan D. Kitenow

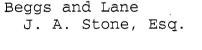
Susan D. Ritenour Assistant Secretary and Assistant Treasurer

lw

cc:

Enclosures

AFA APP CAF CMU CTR ball EG MAS OPC RRR 8EC WAW OTH







BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

)

In re: Conservation Cost Recovery

Docket No. 990002-EG

Certificate of Service

I HEREBY CERTIFY that a true copy of the foregoing was furnished by hand delivery or the U. S. Mail this <u>144</u> day of May 1999 to the following:

Norman Horton, Jr., Esquire Messer, Caparello, & Self, P.A. P. O. Box 1876 Tallahassee FL 32302-1876

John Roger Howe, Esquire Office of Public Counsel 111 W. Madison St., Suite 812 Tallahassee FL 32399-1400

Stuart L. Shoaf St. Joe Natural Gas Company P. O. Box 549 Port St. Joe FL 32456

Charles A. Guyton, Esquire Steel, Hector & Davis 215 S. Monroe, Suite 601 Tallahassee FL 32301

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Ansley Watson, Jr., Esquire Macfarlane Ferguson & McMullen P. O. Box 1531 Tampa FL 33601-1531 Vicki Kaufman, Esquire McWhirter Reeves McGlothlin Davidson Rief & Bakas 117 S. Gadsden Street Tallahassee FL 32301

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RunnonBudden

JEFFREY A. STONE Florida Bar No. 325953 RUSSELL A. BADDERS Florida Bar No. 0007455 Beggs & Lane P. O. Box 12950 Pensacola FL 32576 (850) 432-2451 Attorneys for Gulf Power Company **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

x = 1

ENERGY CONSERVATION COST RECOVERY CLAUSE

DOCKET NO. 990002-EI

PREPARED DIRECT TESTIMONY AND EXHIBIT OF MARGARET D. NEYMAN

FINAL TRUE-UP

APRIL – DECEMBER 1998

MAY 14, 1999



DOCUMENT NUMBER-DATE

1 Gulf Power Company 2 Before the Florida Public Service Commission Prepared Direct Testimony of 3 Margaret D. Neyman Docket No. 990002-EG May 14, 1999 4 5 6 Q. Will you please state your name, business address, 7 employer and position? My name is Margaret D. Neyman and my business address is 8 Α. One Energy Place, Pensacola, Florida 32520. I am 9 employed by Gulf Power Company as the Marketing Services 10 11 Manager. 12 13 Q. Ms. Neyman, for what purpose are you appearing before 14 this Commission today? I am testifying before this Commission on behalf of Gulf 15 Α. Power Company regarding matters related to the Energy 16 Conservation Cost Recovery Clause, specifically the 17 approved programs for April, 1998, through December, 18 1998. 19 20 Are you familiar with the documents concerning the 21 Ο. 22 Energy Conservation Cost Recovery Clause and its related 23 true-up and interest provisions? 24 Α. Yes, I am. 25

1 Ο. Have you verified, that to the best of your knowledge 2 and belief, this information is correct? 3 Α. Yes, I have. 4 Counsel: We ask that Ms. Neyman's exhibit consisting of 5 6 Schedules, CT-1 through CT-6, be marked for 6 identification as: 7 Exhibit No. ____(MDN-1) 8 9 Q. Would you summarize for this Commission the deviations 10 resulting from the actual expenditures for this recovery 11 period and the original estimates of expenses? 12 Α. The estimated true-up net expenses for the entire 13 recovery period April, 1998, through December, 1998, 14 were \$1,866,305, while the actual costs were \$2,042,773 15 resulting in a variance of \$176,468 or 9.5% over the 16 estimated true-up. 17 18 Ms. Neyman, would you explain the April, 1998, through Ο. 19 December, 1998, variance? 20 Α. Yes, the reasons for this variance are an increase in 21 expenses in Geothermal Heat Pump, over \$58,267; Advanced 22 Energy Management, over \$129,588; Commercial GoodCents 23 Buildings, over \$50,802; Commercial/Industrial E.A. & 24 T.A.A., over \$40,203; Commercial Mail-in Audit, over 25 \$17,456; and Solar for Schools, over \$5,771. These

Page 2

1 program expenses are off-set by Residential Energy 2 Audits, under \$25,169; Gulf Express Loan Program, under \$4,488; In Concert With The Environment, under \$1,302; 3 GoodCents Environmental Home, under \$8,056; Duct Leakage 4 5 Program, under \$11,431; Research and Development, under 6 \$64,752; Residential Mail-in Audit, \$10,421 under, resulting in a variance of \$176,468 over budget. A more 7 8 detailed description of the deviations is contained in 9 Schedule CT-6. 10 11 Q. Ms. Neyman, what was Gulf's adjusted net true-up for the 12 period April, 1998, through December, 1998? 13 Α. There was an under-recovery of \$416,045 as shown on Schedule CT-1, page 1. 14 15 Would you describe the results of your programs during 16 Q. the April, 1998, through December, 1998, recovery 17 18 period? A more detailed review of each of the programs is 19 Α. included in my Schedule CT-6. The following is a 20 synopsis of the accomplishments during this recovery 21 22 period. Home Energy Audits - During this period, we 23 (A) projected to audit 1,500 structures. We actually 24 25 completed 1,079.

Page 3

- (B) Residential Mail-In Audits During this period,
 750 audits were projected and 260 audits were
 completed.
- 4 (C) Gulf Express Loan Program No loans were completed
 5 during this period. The program discontinued
 6 accepting new loans in June, 1997.
- 7 (D) In Concert With The Environment During this recovery
 8 period, no students attended the program compared to a
 9 projection of 750 students.
- 10 (E) Good Cents Environmental Home During this recovery
 11 period, no homes were completed compared to a
 12 projection of 4.
- 13 (F) Duct Leakage Program During this recovery period, no
 14 homes were completed compared to a projection of 15.
- 15 (G) Geothermal Heat Pump During this recovery period, a
 16 total of 266 geothermal heat pumps were installed
 17 compared to a projection of 274.
- 18 (H) Advanced Energy Management During this recovery
 19 period, no units were installed. Startup of this
 20 program has been delayed until summer of 1999 due to
 21 equipment delays.

22

23 The program is designed to provide the customer with a
24 means of conveniently and automatically controlling
25 and monitoring his/her energy purchases in response to

prices that vary during the day and by season in 1 relation to the Company's cost of producing or 2 purchasing energy. The AEM system includes field 3 units utilizing a communication gateway, radio 4 frequency (RF) based Local Area Network (LAN), major 5 appliance load control relays, and a proprietary, 6 programmable thermostat (Superstat), all operating at 7 the customer's home. This program will be marketed 8 under the name "GoodCents Select." 9

Gulf expected 6,750 customers to participate in this
program by the end of the projection period. However,
the program has been delayed due to several factors.

The expected prototype units have been delivered, but 15 the production units have been delayed due to failures 16 of electronic components during testing. Gulf now 17 estimates production units will not arrive until mid-18 1999. Despite the unpreventable delays that have 19 occurred, Gulf still believes that the AEM System is a 20 21 viable program. Gulf's near term residential conservation goals have been adversely impacted as a 22 result of the delays in implementing AEM, but the 23 process has produced the most cost-effective solution 24 that is currently possible. 25

10

14

Witness: M. D. Neyman

Gulf is modifying its schedule for market
implementation as a result of the delays, and plans to
increase the number of units deployed during the
latter part of 1999 and during the years 2000 to 2009
to accomplish the basic program objective of achieving
a total of 99,000 kilowatts of peak demand reduction
by year end 2009.

9 (I) GoodCents Building - During this recovery period a
10 total of 159 buildings were built or improved to Good
11 Cents standards, compared to a budget of 165.

(J) Energy Audits and Technical Assistance Audits - During
this recovery period, a total of 101 EA/TAA were
completed compared to a projection of 179.

15 (K) Commercial/Industrial Mail-in Audit - 825 mail-in
16 audits were projected compared to 913 mail-in audits
17 being completed.

Solar for Schools - During this recovery period, 18 (L) Gulf evaluated a "green pricing" promotion plan. 19 The communications plan for Green Pricing promotion 20 will be centered around presentations to civic 21 groups, construction of a web page, press releases 22 and payment center brochures. Additionally, Gulf 23 intends to communicate by bill inserts, direct mail 24 and certain events such as Earth Day. New solar 25

1		lights were installed in 3 locations. One is a
2		test light that is being tracked in the
З		Conservation Demonstration and Development program.
4		The other two lights are located at schools in
5		Gulf's service area.
6		(M) Conservation Demonstration and Development - Sixteen
7		research or demonstration projects have been
8		identified and are detailed in Schedule CT-6.
9		
10	Q.	Ms. Neyman, does this conclude your testimony?
11	Α.	Yes, it does.
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AFFIDAVIT

STATE OF FLORIDA COUNTY OF ESCAMBIA)

)

Docket No. 990002-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 her knowledge, information and belief. She is personally known to me.

Margaret (D. Neyman

Marketing Services Manager

Sworn to and subscribed before me this 13^m day of mary _____, 1999.

Public, State of Florida at Large



Florida Public Service Commission Docket No. 990002-EG Gulf Power Company Witness: M. D. Neyman Exhibit No. ____ (MDN-1)

INDEX

Schedule Number	Title	Pages
CT-1	Adjusted net True-Up, April, 1998, through December, 1998	1
CT-2	Analysis of Energy Conservation Program Costs	2
CT-3	Energy Conservation Adjustment	3 - 7
CT-4	Schedule of Capital Investments, Depreciation and Return	8 - 9
CT-5	Reconciliation and Explanation of Differences Between Filing and Audit	10
CT-6	Program Descriptions and Progress Reports	11 - 27

Florida Public Service Commission Docket No. 990002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No._____(MDN-1) Schedule CT-1 Page 1 of 1

GULF POWER COMPANY ENERGY CONSERVATION COST RECOVERY ADJUSTED NET TRUE-UP For the Period: April, 1998 Through December, 1998

Actual

1.	Principal	337,515	
2.	Interest	33,163	
	Actual Over Recovery Ending Balance	ce	370,678
	Estimated Actual Filed In October, 19	998	
3.	Principal	762,514	
4.	Interest	24,209	786,723
5.	Adjusted Net True-up		(416,045)

-1-----

Florida Public Service Commission Docket No. 990002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No._____(MDN-1) Schedule CT-2 Page 1 of 1

GULF POWER COMPANY ENERGY CONSERVATION COST RECOVERY ANALYSIS OF ENERGY CONSERVATION PROGRAM COSTS ACTUAL Vs ESTIMATED For the Period: April, 1998 Through December, 1998

	Actual	Est/Actual	Difference
1. Depreciation & Return	\$ 3,471.54	\$ 120,387	\$ (116,915.46)
2. Payroll & Benefits	1,188,160.96	1,146,932	41,228.96
3. Materials & Supplies	584,722.84	330,632	254,090.84
4. Outside Services	0.00	0	0.00
5. Advertising	223,580.67	234,295	(10,714.33)
6. Incentives	0.00	52,725	(52,725.00)
7. Vehicles	527.24	23,562	(23,034.76)
8. Other	42,309.91	99,759	(57,449.09)
9. SUBTOTAL	2,042,773.16	2,008,292	34,481.16
10. Program Revenues	0.00	141,987	(141,987.00)
11. TOTAL PROGRAM COSTS	2,042,773	1,866,305	176,468.16
12. Less: Payroll Adjustment	0.00	0	0.00
13. Amounts Inc. in Base Rate	0.00	0	0.00
14. Conservation Adjustment Revenues	1,403,107.73	988,452.95	414,654.78
15. Rounding Adjustment	1,403,108	988,453	414,655
16. True-up Before Adjustment	(639,665)	191,212	(830,877)
17. Interest Provision	33,163	24,209	8,954
18. Prior Period True-up	977,180	977,180	0
20. End of Period True-up	370,678	786,723	(416,045)

- 2 -----

GULF POWER COMPANY

CONSERVATION COSTS Per PROGRAM VARIANCE ACTUAL Vs ESTIMATED/ACTUAL For the Period: April, 1998 Through December, 1998

		Depre/Amort & Return	Payroll & Benefits	Materials & Expenses	Advertising	Incentives	Outside Services	Vehicles	Other I	Sub-Total	Program Revenues I	Total
1.	Residential Energy Audit	0.00	6,709.31	161.67	(27,818.03)	0.00	0.00	(4,222.02)	י ו 00.0 ו	(25,169.07)	0.00	(25,169.07)
2.	Gulf Express	0.00	(1,598.20)	(2,890.54)	0.00	0.00	0.00	0.40	 0.00 	(4,488.34)	 0.00 I	(4,488.34)
3.	In Concert with the Environment	0.00	1,722.86	(2,537.00)	0.00	0.00	0.00	(488.00)	 0.00 	(1,302.14)	1 0.00 1	(1,302.14)
4.	Good Cents Environmental	0.00	(7,572.00)	(242.00)	0.00	0.00	0.00	(242.00)	 0.00 	(8,056.00)	 0.00 	(8,056.00)
5.	Duct Leakage	0.00	(10,101.79)	(63.74)	0.00	(474.00)	0.00	(791.00)	1 0.00 	(11,430.53)	 0.00 	(11,430.53)
6.	Geothermal Heat Pump	0.00	(12,412.89)	94,669.53	29,894.20	(52,251.00)	0.00	(1,633.14)	 0.00 	58,266.70	0.00 	58,266.70
7.	Advanced Energy Management	(116,931.00)	(36,618.08)	148,206.09	(792.00)	0.00	0.00	(6,264.00)	 0.00 	(12,398.99)	 (141,987.00) 	129,588.01
8.	Comm/Ind Good Cents Building	0.00	57,137.78	8,064.25	(9,883.50)	0.00	0.00	(4,517.00)	 0.00 	50,801.53	1 0.00 1	50,801.53
9.	Comm/Ind E.A. & T.A.A.	0.00	27,633.66	34,197.73	(2,115.00)	0.00	0.00	(4,878.00)	 (14,635.00) 	40,203.39	۱ 0.00 ا ا	40,203.39
10	Commercial Mail In Audit	0.00	7,160.89	10,295.47	0.00	0.00	0.00	0.00	 0.00 	17,456.36	 0.00 	17,456.36
11.	Solar for Schools	0.00	732.11	5,038.58	0.00	0.00	0.00	0.00	 0.00 	5,770.69	 0.00 	5,770.69
12.	Research & Development	15.54	0.00	(21,952.97)	0.00	0.00	0.00	0.00	ا (42,814.09) ا ا	(64,751.52)	ן 0.00 	(64,751.52)
13.	Gas Research & Development	0.00	0.00	0.00	0.00	0.00	0.00	0.00	 0.00 	0.00	 0.00 	0.00
14.	Residential Mail In Audit	0.00	8,435.31	(18,856.23)	0.00	0.00	0.00	0.00	 0.00 	(10,420.92)	 0.00 	(10,420.92)
	Total	(116,915.46) =	41,228.96	254,090.84 = ===================================	(10,714.33)	(52,725.00)	0.00	(23,034.76)	 (57,449.09) 	34,481.16	 (141,987.00) 	176,468.16

Florida Public Service Commission Docket No. 990002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No.____(MDN-1) Schedule CT-3 Page 1 of 5

GULF POWER COMPANY

CONSERVATION COSTS Per PROGRAM ACTUAL EXPENSES For the Period: April, 1998 Through December, 1998

	Actual	Depre/Amort & Return	Payroll & Benefits	Materials & Expenses	Advertising	Incentives	Outside Services	Vehicles	Other I	Sub-Totat	Program Revenues I	Total
1.	Residential Energy Audit	0.00	193,135.31	13,115.67	109,657.97		0.00	428.98		316,337.93	0.00	316,337.93
2.	Gulf Express	0.00	1,314.80	(3,459.54)				80.40	1	(2,064.34)	0.00	(2,064.34)
3.	In Concert with the Environment	0.00	16,360.86						1	16,360.86	0.00	16,360.86
4.	Good Cents Environmental	0.00	0.00							0.00	0.00	0.00
5.	Duct Leakage	0.00	9,143.21	1,043.26					1	10,186.47	0.00	10,186.47
6.	Geothermal Heat Pump	0.00	50,994.11	113,405.53	108,618.20			17.86	1	273,035.70	0.00	273,035.70
7.	Advanced Energy Management	0.00	142,585.92	303,388.09	1,296.00				1	447,270.01	0.00	447,270.01
8.	Comm/Ind Good Cents Building	0.00	276,381.78	19,027.25	3,634.50				1	299,043.53	0.00	299,043.53
9.	Comm/Ind E.A. & T.A.A.	0.00	441,981.66	72,380.73	374.00					514,736.39	0.00	514,736.39
10.	Commercial/Industrial Mail In Audi	0.00	23,366.89	49,062.47						72,429.36	0.00	72,429.36
11.	Solar for Schools	0.00	5,673.11	10,445.58						16,118.69	0.00	16,118.69
12.	Research & Development End Use Profiling Geothermal Heat pump FCG Desiccant Dehum. H. P. Energy Education Commercial Technology PJC Closed Loop (Dentist) Sleep Inn Van Norman Shores Swilley Sinky Loop GCCC H2O Pur Joe Ridge Jim Day Burger King Dr. Taylor (Dentist) Bay Co. Schools Low Income Multi-Family MIOX Dunes Solar Light Ozone Hampton Boardwaik Totai	0 00 0 000 0 0000 0 000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 00000000	0.00	546.43 156.78 114.06 242.93 291.12 1.646.59 (1.999.91) 230.10 2,716.53 (5,000.00) 195.03 128.37 (731.97)	0.00	0.00	0.00	0.00	31,779,45 10,530,46 42,309,91	10,678,11 10,678,11 100 900 546,43 156,78 0.00 0.00 156,78 0.00 0.00 0.00 1.14,06 0.00 291,12 0.00 291,27 0.00 1.646,59 1.14,999,91) 231,27,1653 1.27,1653 1.28,37 45,049,48 1.		0.00 0.00 0.00 0.00 0.00 0.00 0.00 546.43 156.78 0.00 1546.43 156.78 0.00 0.00 1114.06 0.00 242.93 0.00 242.93 0.00 1291.12 0.00 1.291.12 0.00 1.291.12 0.00 1.291.12 0.00 0.00 1.291.12 0.00 0.00 1.291.12 1.646.59 1.646.43 1.646.59 1.646.
13. 14.	Gas Research & Development Residential Mail In Audit	0.00	27,223.31	7,045.77						0.00 34,269.08	0.00	0.00 34,269.08
	Total	3,471.54	1,188,160.96	584,722.84	223,580.67	0.00	0.00	527.24	42,309.91	2,042,773.16		2,042,773.16

Florida Public Service Commission Docket No. 990002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No.____(MDN-1) Schedule CT-3 Page 2 of 5

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Florida Public Service Commission Docket No. 990002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No.____(MDN-1) Schedule CT-3 Page 3 of 5

GULF POWER COMPANY

2

CONSERVATION COSTS Per PROGRAM SUMMARY OF ACTUAL EXPENSES BY PROGRAM MONTH For the Period: April, 1998 Through December, 1998

	PROGRAMS	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	DECEMBER REVISION	TOTAL
1.	Residential Energy Audits	30,501.77	68,001.02	57,580.33	44,698.72	24,574.68	20,997.72	22,551.78	21,423.02	26,008.89	 	316,337.93
2.	Gult Express	(7,008.27)	888.37	205.71	2,438.87	290.09	280.74	2 49.8 4	294.78	295.53		(2,064.34)
3.	In Concert with the Environment	1,815.25	1,959.58	1,783.13	2,348.93	1,808.44	1,740.53	1,718.79	1,874.98	1,311.23	İ	16,360.86
4.	Good Cents Environmental	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00
5.	Duct Leakage	2,560.68	2.714.73	851.73	(324.67)	2,958.97	9.81	393.97	413.13	608.12	1	10,186.47
6.	Geothermal Heat Pump	10,689.91	15,577.46	13,776.12	11,440.92	24,937.62	74,581.68	74,536.30	14,385.73	33,109.96	 	273.035.70
7.	Advanced Energy Management	21,164.05	27 ,294.9 5	25,479.88	34,937.75	20, 94 5. 92	22,442.91	49,349.22	43,543.80	202,111.53		447,270.01
8.	Comm/Ind Good Cents Bidg	40,485.51	25,412.49	36,964.99	32,448.17	33,744.06	28,536.36	30,831.73	34,159.58	36,460.64	1	299,043.53
9.	Comm/Ind E.A. & T.A.A.	58,014.40	56,488.54	53,711.42	62,405.43	63,111.43	51,121.50	48,568.03	52 ,948 .10	68,367.54	Í	514,736.39
10.	Commercial Mail In Audit	3,036.14	2,579.25	6,890.74	5,386.59	2,754.83	2,221.61	2,894.36	12,704.00	33,961.84		72,429.36
11.	Solar for Schools	637.71	657.20	3,360.29	3,038.61	5,887.00	636.00	531.30	692.30	678.28		16,118.69
12.	Research & Development End Use Profiling Geothermai Heat Pump FCG Desiccant Dehum. H. P. Energy Education Commercial Technology PJC Closed Loop (Dentist) Silesp Inn Van Norman Shores Swilley Silnky Loop GCCC H2O Pur. Joe Ridge Jim Day Burger King Dr. Taylor (Dentist) Bay Co. Schools	3,655.20 1,102.65 94.46 33.75 47.03	3,646.36 1,100.36 45.19 47.03	3,665.21 1,103.94 91.06 32.47 7.18	3,577.35 1,078.78 51.91 27.24 47.03	3.946.44 1.201.74 7.82	3,557.00 1,073.34 32.47 94.66	3,552.64 1,072.53 8.94 64.60	3,660.19 1,105.40 32.41	3,422.15 1,030.58 214.64 114.06 291.12	2,440,80 808.79	0.00 0.00 0.00 35,103,34 10,678,11 0.00 546,43 190,53 0.00 0.00 114,06 0.00 242,93 0.00 242,93 0.00 291,12 0.00 0.00
	Low Income Multi-Family MIOX Dunes Solar Light Ozone Hampton Boardwalk	110.92	496.79 38.45	230.94 78.09 32.98 2,716.53	51.11	331.95	284.34 59.94 <u>62.72</u>	140.54 32.46	(2,078.00) 32.52 (5,000.00) 60.25 29.14	134.78 36.51		1,646.59 (1,999.91) 196.35 2,716.53 (5,000.00) 195.03 128.37
		5,044.01	5,374.18	7,948.40	4,833.42	5,487.95	5,164.47	4,871.71	(2,168.09)	5,243.84	3,249.59	45,049.48
13.	Gas Research & Development	0.00	0.00	0.00	0. 00	0.00	0.00	0.00	0.00	0.00		0.00
14.	Residential Mail In Audit	6,059.68	2,901.12	4,367.26	2,471.54	3,248.42	4,254.15	2,855.66	3,497.94	4,613.31		34,269.08
	Recoverable Conservation Expenses	173,000.84	209,848.89	212,920.00	206,124.28	189,749.41	211,987.48	239,352.69	183,769.27	412,770.71	3,249.59	2,042,773.16

GULF POWER COMPANY

ENERGY CONSERVATION ADJUSTMENT For the Period: April, 1998 through December, 1998

Conservation Revenues	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	DECEMBER REVISION	TOTAL
 a. Residential Conservation Audit Fees b. (Other Fees) c: 	0.00 0.00 0.00										
2. Conservation Adjustment Revenues	120,223.73	1 61,536 .85	185,441.44	194,070.01	189,559.96	162,383.00	141,722.60	117,934.98	130,235.16		1,403,107.73
3. Total Revenues	120,223.73	161,536.85	185,441.44	194,070.01	189,559.96	162,383.00	141,722.60	117,934.98	130,235.16	0.00	1,403,107.73
4. Adjustment not Applicable to Period - Prior True	67,646.58	67,646.58	67,646.58	67,646.58	67,646.58	67,646.58	135,293.16	135,293.16	135,293.16	1 	811,758.96
5. Conservation Revenues Applicable to Period	187,870.31	229,183.43	253,088.02	261,716.59	257,206.54	230,029.58	277,015.76	253,228.14	265,528.32	0.00	2,214,866.69
6. Conservation Expenses (Form CT-3 Page 8)	173,000.85	209,848.88	212,920.00	206,124.28	189,749.41	211,987.48	239,352.69	183,769.27	412,770.71	3,249.59	2,042,773.16
7. True Up this Period (Line 5 minus Line 6)	14,869.46	19,334.55	40,168.02	55,592.31	67,457.13	18,042.10	37,663.07	69,458.87	(147,242.39)	(3,249.59)	172,093.53
8. Interest Provision this Period (Page 10, Line 10)	4,389.49	4,157.56	4,027.91	3,976.49	3,938.08	3,723.45	3,277.30	3,392.71	2,222.63	57.48	33,163.10
9. True Up & Interest Provision Beginning of Montl	977,179.97	928,792.34	884,637.87	861,187.22	853,109.44	856,858.07	810,977.04	716,624.25	654,182.67	373,869.75	977,179.97
10. Prior True Up Collected or Refunded	(67,646.58)	(67,646.58)	(67,646.58)	(67,646.58)	(67,646.58)	(67,646.58)	(135,293.16)	(135,293.16)	(135,293.16)	0.00	(811,758.96)
End of Period- Net True Up	928,792.34	884,637.87	861,187.22	853,109.44	856,858.07	810,977.04	716,624.25	654,182.67	373,869.75	370,677.64 *	* 370,677.64

** Note: A journal voucher accruing December 1998 expenses of \$3,249.59 was entered after the Conservation Clause was calculated. This adjustment and interest was booked in January, 1999.

Florida Public Service Commission Docket No. 990002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No.____(MDN-1) Schedule CT-3 Page 4 of 5

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GULF POWER COMPANY COMPUTATION OF INTEREST EXPENSE ENERGY CONSERVATION ADJUSTMENT For the Period: April, 1998 through December, 1998

Interest Provision	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	DECEMBER REVISION	TOTAL
1. Beginning True up Amount	977,179.97	928,792.34	884,637.87	861,187.22	853,109.44	856,858.07	810,977.04	716,624.25	654,182.67	373,869.75	
2. Ending True up before Interest	924,402.85	880,480.31	857,159.31	849,132.95	852,919.99	807,253.59	713,346.95	650,789.96	371,647.12	370,620.16	
3. Total beginning & ending	1,901,582.82	1,809,272.65	1,741,797.18	1,710,320.17	1,706,029.43	1,664,111.66	1,524,323.99	1,367,414.21	1,025,829.79	744,489.91	
4. Average True up Amount	950,791.41	904,636.33	870,898.59	855,160.09	853,014.72	832,055.83	762,162.00	683,707.11	512,914.90	372,244.96	
5. Interest Rate First Day Reporting Business Month	5.5500	5.5300	5.5000	5.6000	5.5600	5.5200	5.2200	5.1000	5.5000		
6. Interest Rate First Day Subsequent Business Month	5.5300	5.5000	5.6000	5.5600	5.5200	5.2200	5.1000	5.5000	4.9000		
7. Total of Lines 5 and 6	11.0800	11.0300	11.1000	11.1600	11.0800	10.7400	10.3200	10.6000	10.4000	0.0000	
8. Average Interest rate (50% of Line 7)	5.5400	5.5150	5.5500	5.5800	5.5400	5.3700	5.1600	5.3000	5.2000	0.0000	
9. Monthly Average Interest Rate Line 8 \ 12	0.004617	0.004596	0.004625	0.004650	0.004617	0.004475	0.004300	0.004417	0.004333	0.000000	
9a. Interest for Audit Adjustment 10. Interest Provision (line 4 X 9)	4,389.49	4,157.56	4,027.91	3,976.49	3,938.08	3,723.45	3,277.30	373.00 3,392.71	2,222.63	57.48	33,163.10 = =======

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Florida Public Service Commission Docket No. 990002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No.____(MDN-1) Schedule CT-3 Page 5 of 5

GULF POWER COMPANY

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

Line No.	Description	Beginning of Period	April	May	June	July	August	September	October	November	December	Total
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١.	Investments (Net of Retirements)										0	
2.	Amortization Base	=	21,139	21,139	21,139	21,139	21,139	21,139	21,139	21,139	21,139	
3.	Amortization Expense (A)	=	251.65	251.65	251.65	251.65	251.65	251.65	251.65	251.65	251.65	2,264.85
4.	Cumulative Investment	21,139	21,139	21,139	21,139	21,139	21,139	21,139	21,139	21,139	21,139	
5.	Less: Accumulated Amortization	6,795	7,047	7,298	7,550	7,802	8,053	8,305	8,557	8,808	9,060	
6.	Net Investment	14,344	14,092	13,841	13,589	13,337	13,086	12,834	12,582	12,331	12,079	
7.	Average Net Investment		14,218	13,967	13,715	13,463	13,212	12,960	12,708	12,457	12,205	
8.	Rate of Return / 12 (Including Income T	axes) (B)	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	
9.	Return Requirement on Average Net Inv	vestment	126.63	124.40	122.15	119.91	117.67	115.43	113.19	110.95	108.71	1,059.04
10.	Total Amortization & Return (Line 3 + 9)) _	378.28	376.05	373.80	371.56	369.32	367.08	364.84	362.60	360.36	3,323.89

Notes:

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(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 December, 1998

Line <u>No.</u>	Description	Beginning of Period	April	Мау	June	July	August	September	October	November	December	Total
1.	Investments (Net of Retirements)										0	
2.	Amortization Base	-	939	939	939	939	939	939	939	939	939	
3.	Amortization Expense (A)	_	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	100.62
4.	Cumulative Investment	939	939	939	939	939	939	939	939	939	939	
5.	Less: Accumulated Amortization	302	313	324	336	347	358	369	380	391	403	
6.	Net Investment	637	626	615	603	592	581	570	559	548	536	
7.	Average Net Investment		631.41	620.23	609.05	597.87	586.69	575.51	564.33	553.15	541.97	
8.	Rate of Return / 12 (Including Income Ta	ixes) (B)	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	0.8906%	
9.	Return Requirement on Average Net Inve	estment	5.62	5.52	5.42	5.32	5.23	5.13	5.03	4.93	4.83	47.03
10.	Total Amortization & Return (Line 3 + 9)	=	16.80	16.70	16.60	16.50	16.41	16.31	16.21	16.11	16.01	147.65

Notes:

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(A) 1995 Additions Amortized over 7 Year Period

(B) Revenue Requirement Return is 10.6872%

Florida Public Service Commission Docket No. 990002-EG GULF POWER COMPANY Witness: Margaret D. Neyman Exhibit No.____(MDN-1) Schedule CT-4 Page 2 of 2

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GULF POWER COMPANY

Reconciliation and Explanation of Differences Between Filing and FPSC Audit Report for Months, April, 1998, through December, 1998

(If no differences exist, please state.)

NO DIFFERENCES

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Program Description and Progress

Program Title: Residential Energy Audits

<u>Program Description</u>: 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.

<u>Program Accomplishments</u>: 1,500 residential energy audits were forecasted to be completed compared to 1,079 actual audits completed for a difference of 421 audits under projection.

<u>Program Fiscal Expenditures</u>: Forecasted expenses were \$341,507 compared to actual expenses of \$316,338 resulting in a deviation of \$25,169 under budget. The deviation is the result of lower than expected demand for the program.

<u>Program Progress Summary</u>: Since the approval of this program Gulf has performed 125,507 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

<u>Program Description</u>: 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.

<u>Program Accomplishments</u>: 260 audits were conducted using this process during the reporting period compared to a projection of 750.

<u>Program Fiscal Expenditures</u>: This program was approved August 5, 1997. The program had actual expenses of \$34,269 compared to a projection of \$44,690 for a difference of \$10,421 under budget.

<u>Program Progress Summary</u>: This program was approved on August 5, 1997. There have been 285 mail-in audits completed program-to-date.

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Program Description and Progress

Program Title: Gulf Express Loan Program

<u>Program Description</u>: The objective of this program has been to encourage and achieve energy conservation. The program provides below market interest rates by participating banks to customers as an incentive to install energy conservation features in their homes.

<u>Program Accomplishments</u>: New loans were discontinued as of second quarter, 1997.

<u>Program Fiscal Expenditures</u>: Forecasted expenses were \$2,424 compared to actual expenses of (2,064). Actual expenses are negative due to some previous charges being journaled out of the program during this period. All future expenses will be for the administration of existing loans.

<u>Program Progress Summary</u>: Since the approval of the program, Gulf has completed 1,953 Gulf Express Loans.

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Program Description and Progress

Program Title: In Concert With The Environment

<u>Program Description</u>: 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.

<u>Program Accomplishments</u>: In Concert With The Environment was presented to no students during this recovery period compared to a projection of 750 students. This deviation is due to a lack of response from the schools primarily because many schools already have environmental units incorporated into the curriculum and scheduling conflicts.

<u>Program Fiscal Expenditures</u>: Expenses for the period ending December, 1998, were projected at \$17,663 compared to actual expenses of \$16,361 for a deviation of \$1,302 under budget.

<u>Program Summary</u>: Since the approval of the program, 4,378 students have completed the program.

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Program Description and Progress

Program Title: Good Cents Environmental Home

<u>Program Description</u>: 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.

<u>Program Accomplishments</u>: During the recovery period, no Good Cents Environmental Homes were constructed compared to a goal of 4 units. Gulf Power has maintained the availability of this program to our builders and customers, however, we have not advertised and promoted this program in an active manner.

<u>Program Fiscal Expenditures</u>: Expenses for the period ending December, 1998, were forecasted to be \$8,057. However, due to the program status, no expenses have been incurred.

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Program Description and Progress

Program Title: Duct Leakage Repair

<u>Program Description</u>: The program provides the customer with a means to identify house air duct leakage and recommend repairs that can reduce customer kWh energy usage and kW demand.

<u>Program Accomplishments</u>: During the this recovery period, no Duct Leakage Repair units were completed compared to a goal of 15 units. Gulf Power will maintain the availability of this program to our builders and customers, however, we will not advertise and promote this program in an active manner.

<u>Program Fiscal Expenditures</u>: Projected expenses were \$21,617 compared to actual expenses of \$10,186 for a deviation of \$11,431 under budget. This program is under budget due to lower than expected participation rate in the program.

<u>Program Progress Summary</u>: Program-to-date, 13 Duct Leakage Repair units have been completed. Program activities have related to education, training, and program development.

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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 advanced and emerging geothermal systems.

<u>Program Accomplishments</u>: During this recovery period, 266 Geothermal Heat Pump units were installed compared to a goal of 274 units. This results in a deviation of 8 units under goal. This program is under projection due to lower than expected participation rate in the program.

<u>Program Fiscal Expenditures</u>: Projected expenses for the period were \$214,769 compared to actual expenses of \$273,036 for a deviation of \$58,267 over budget. This program is over budget due to additional materials and expenses as well as advertising expenses that were paid during this period.

<u>Program Progress Summary</u>: Program progress to date has been related primarily to education, training, and program development. 766 units have been installed program-to-date.

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Program Description and Progress

Program Title: Advanced Energy Management

<u>Program Description</u>: This program was field tested through the TranstexT Advanced Energy Management Pilot Program in Gulf Breeze, Florida. 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.

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

<u>Program Fiscal Expenditures</u>: Net expenses were projected at \$317,682 compared to actual expenses of \$447,270 for a deviation of \$129,588 over budget. This program is over budget due to additional testing of equipment and fixed costs prior to full implementation of the program.

Program Progress Summary: The AEM equipment and installation are expected mid-1999.

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Program Description and Progress

Program Title: GoodCents Building

<u>Program Description</u>: 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.

<u>Program Accomplishments</u>: The goal during the current period was 165 installations compared to actual installations of 159 for a difference of 6 below goal.

<u>Program Fiscal Expenditures</u>: Forecasted expenses were \$248,242 compared to actual expenses of \$299,044 for a deviation of \$50,802. This deviation is due to our customers are becoming more educated on the new technologies available to them (through our efforts or by accessing information electronically) they are also requiring more technical support from us. This in turn causes an increase in our labor dollars spent.

<u>Program Progress Summary</u>: A total of 7,504 commercial/industrial buildings have qualified for the Good Cents designation since the program was developed in 1977.

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Program Description and Progress

<u>Program Title</u>: Energy Audits and Technical Assistance Audits

<u>Program Description</u>: This program is designed to provide professional advice to our existing commercial 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.

<u>Program Accomplishments</u>: During the period ending December, 1998, our goal was 179 while actual results were 101. This deviation is primarily due to the development of the commercial mail-in audit program. Customers began receiving audit surveys through the mail at the end of June, 1997. This has reduced the number of on-site audits performed by field representatives.

<u>Program Fiscal Expenditures</u>: Forecasted expenses were \$474,533 compared to actual expenses of \$514,736 for a deviation of \$40,203 over budget. This program is over budget due to customers requiring additional information during the audits which has resulted in labor and the associated material accounts being over budget.

<u>Program Progress Summary</u>: A total of 10,908 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

<u>Program Description</u>: The Commercial Mail-In Audit Program is a direct mail energy auditing program. This program is supplementing Gulf's existing Commercial/Industrial Energy Audit program and is assisting 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 is returned to the customer and includes targeted, timely information about energy conservation opportunities specific to each business type and geographic area.

<u>Program Accomplishments</u>: In this period, 913 mail-in audits have been completed compared to a projection of 825 audits.

<u>Program Fiscal Expenditures</u>: Projected expenses for the period were \$54,973 compared to actual expenses of \$72,429 resulting in a deviation of \$17,456 over budget.

Program Progress Summary: To-date, 1,702 mail-in audits have been completed.

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Program Description and Progress

Program Title: Solar for Schools Pilot

<u>Program Description</u>: The program combines the installation of solar technologies in participating school facilities with energy conservation education of students. The program is funded in part through funds collected through a "green pricing" mechanism.

<u>Program Accomplishments</u>: During this recovery period, Gulf evaluated a "green pricing" promotion plan. The communications plan for Green Pricing promotion will be centered around presentations to civic groups, construction of a web page, press releases and payment center brochures. Additionally, Gulf intends to communicate by bill inserts, direct mail and certain events such as Earth Day. New solar lights were installed in three locations. One is a test light that is being tracked in the Conservation Demonstration and Development program. The other two lights are located at two schools in Gulf's service area.

Through the end of this period, \$18,171 has been collected through the "green pricing" mechanism. However, additional funding is necessary to enhance the initial project or begin a new solar project.

<u>Program Fiscal Expenditures</u>: Projected expenses for the period were \$10,348 compared to actual expenses of \$16,119 for a deviation of \$5,771 above budget. This program is over budget due to equipment repairs being done at one of the existing sites.

<u>Program Progress Summary</u>: Gulf Power completed the project with the Florida Energy Extension Service on a prototype Solar for Schools installation at the Ferry Pass Middle School in Pensacola, FL. The installation was completed during the second quarter of 1996. Experience gained at this site will be used to design future Solar for Schools installations.

Gulf began solicitation for the \$1.75 monthly voluntary Solar for Schools contribution during September, 1996. As of December, 1998, 332 customers were signed up to contribute to this program.

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Program Description and Progress

Program Title: Conservation Demonstration and Development

<u>Program Description</u>: A package of conservation programs was approved by the FPSC in Order No. 23561 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:

The Efficiency Store - Energy Education program is designed to help achieve the conservation goals. The Efficiency Store 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.

The Efficiency Store - Commercial Technology Demonstration is intended to provide 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 commercial 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.

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 Northwest Florida or Florida to our knowledge. The results will reveal if this ground loop performs as well as the most common "vertical loop" in extracting and rejecting heat with the earth.

The system consist of an AT028 (2.3 tons) in a 2000 square feet 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 feet trenches with 600 feet of pipe per trench.

Another purpose is loop cost reduction potential. The projected savings on loop installation cost is \$1000 versus

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a vertical loop for the same unit. If the unit performs, the cost reduction will result in increased geothermal installations.

This project will also result in 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 a underground closed loop piping system. The job also 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 & cooling in the office/lobby area and room/laundry hot water needs 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, but Gulf has not received the needed special equipment from the manufacturer at the close of this filing.

The Dunes - Is a project intended to monitor two heat pump water heaters in a hotel. 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.

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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 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.

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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.

Solar Light - Gulf Power Company is presently testing a solar Photovotaic light at the Pine Forest facility. The solar light will be monitored for energy consumption and peak demand savings as well as the actual lumen for the security light. A successful test would result in using this light in our Solar for Schools program. This particular light did not use funding from the Solar for Schools Program, however, we did use funds from the Conservation Demonstration and Development program.

Hampton Inn - The Hampton Inn is being used to study geothermal heat pump water heaters for their laundry and Pool heating requirements. The Laundry room is cooled and the water heated with Geo-thermal Heat pump water heaters. The hotel pool is heated with a Geo-thermal Heat pump water heater.

Boardwalk - The Boardwalk Laundry Room is a research site designed to study the effectiveness of the triple function Nordyne heat pump. This heat pump is designed to cool and heat the laundry room and also heat the water used to do laundry.

<u>Program Fiscal Expenditures</u>: Program expenses were forecasted at \$109,801 compared to actual expenses of \$45,049.48 for a deviation of \$64,751.52 under budget. Project expenses were as follows: Efficiency Store - Energy Education, \$35,103.34; Efficiency Store - Commercial Technology, \$10,678.11; Slinky Loop Mat Heat Pump, \$114.06;

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Joe Ridge - \$242.93; Jim Day - \$0; Burger King, \$291.12; Closed Loop - Dentist Office, \$0; Closed Loop - Hotel, \$546.43; Van Norman Project, \$190.53.; Doctor Taylor (Dentist) - \$0; Bay County Schools - \$0; Low Income Multi-Family - \$1,646.59; The Dunes, \$196.35; Solar Light, \$2,716.53; Boardwalk, \$128.37; and Hampton Inn, \$195.03. These expenses are off-set by the removal of MIOX, \$1,999.91 and Ozone, \$5,000 as a result of the last FPSC ECCR audit.