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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 960002-EG

PREPARED DIRECT TESTIMONY
AND EXHIBITS
OF
MARGARET D. NEYMAN

CONSERVATION COST RECOVERY

TRUE-UP

OCTOBER, 1995 - SEPTEMBER, 1996

NOVEMBER 19, 1996

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GULF POWER  _____

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GULF POWER COMPANY

ADJUSTED NET TRUE-UP

For the Period: October, 1995 Through September, 1996

1. Principal	397,451.06	
2. Interest	<u>(345.12)</u>	
Less Projected True-up		397,105.94
February Hearing Conservation Factor		
3. Principal	116,357.30	
4. Interest	<u>(9,665.96)</u>	<u>106,691.34</u>
5. Adjusted Net True-up		<u><u>290,414.60</u></u>

GULF POWER COMPANY

ANALYSIS OF ENERGY CONSERVATION PROGRAM COSTS
 ACTUAL Vs ESTIMATED

For the Period: October, 1995 Through September, 1996

	Actual	Projected	Difference
	\$	\$	\$
1. Depreciation & Return	2,672.45	40,861.00	(38,188.55)
2. Payroll & Benefits	1,510,773.81	1,508,675.00	2,098.81
3. Materials & Supplies	638,659.01	482,068.00	156,591.01
4. Outside Services	0.00	132,910.00	(132,910.00)
5. Advertising	205,292.81	399,172.00	(193,879.19)
6. Incentives	0.00	63,270.00	(63,270.00)
7. Vehicles	41,608.25	63,492.00	(21,883.75)
8. Other	44,526.92	37,131.00	7,395.92
9. SUBTOTAL	2,443,533.25	2,727,579.00	(284,045.75)
10. Program Revenues	0.00	39,375.00	(39,375.00)
11. TOTAL PROGRAM COSTS	2,443,533.00 ✓	2,688,204.00	(244,671.00)
12. Less: Payroll Adjustment	0.00	0.00	0.00
13. Amounts Inc. in Base Rate	0.00	0.00	0.00
14. Conservation Adjustment Revenues	2,902,340.23	2,865,917.21	36,423.02
15. Rounding Adjustment	2,902,340.00	2,865,917.00	36,423.00
16. True-up Before Adjustment	458,807	177,713	281,094
17. Interest Provision	(345)	(9,666)	9,321
18. Prior Period True-up	(61,356)	(61,356)	0
19. Deferred True-up Prior Peri	0	0	0
20. End of Period True-up	397,106	106,691	290,415

GULF POWER COMPANY

CONSERVATION COSTS Per PROGRAM
 VARIANCE ACTUAL Vs PROJECTED
 For the Period: October, 1995 Through September, 1996

	Depre/Amort & Return	Payroll & Benefits	Materials & Expenses	Advertising	Incentives	Outside Services	Vehicles	Other	Sub-Total	Program Revenues	Total
1 Residential Energy Audit	0 00	82,090 98	19,954 40	(62,894 69)	0 00	(4,162 00)	(2,839 32)	(403 00)	31,746 37	0 00	31,746 37
2 Gulf Express	0 00	2,748 38	125,036 87	(76,666 00)	0 00	(5,739 00)	(925 89)	0 00	44,454 36	0 00	44,454 36
3 In Concert with the Environment	0 00	(2,100 22)	57,610 70	0 00	0 00	0 00	(681 36)	0 00	54,829 12	0 00	54,829 12
4 Good Cents Environmental	0 00	(2,009 67)	33 11	(16,595 01)	0 00	0 00	50 98	0 00	(18,520 59)	0 00	(18,520 59)
5 Duct Leakage	0 00	(28,959 27)	(1,731 23)	0 00	(1,875 00)	0 00	(1,059 49)	0 00	(33,624 99)	0 00	(33,624 99)
6 Geothermal Heat Pump	0 00	(39,992 38)	49,384 49	1,245 04	(56,249 00)	0 00	(1,826 37)	0 00	(47,438 20)	0 00	(47,438 20)
7 Advanced Energy Management	(38,187 00)	(48,865 35)	(4,583 21)	0 00	0 00	(32,459 00)	(1,006 53)	0 00	(125,101 09)	(39,375 00)	(85,726 09)
8 Comm/Ind Good Cents Building	0 00	61,892 49	16,532 05	(44,161 50)	0 00	(12,186 00)	(811 48)	0 00	21,265 56	0 00	21,265 56
9 Comm/Ind E.A. & T.A.A.	0 00	(22,372 14)	56,693 36	5,942 97	0 00	(78,364 00)	(12,633 23)	(36,728 00)	(87,461 04)	0 00	(87,461 04)
10 Solar for Schools	0 00	(334 03)	1,134 81	0 00	(5,146 00)	0 00	108 94	0 00	(4,236 28)	0 00	(4,236 28)
11 Research & Development	(1 55)	0 00	(163,626 27)	(750 00)	0 00	0 00	(260 00)	44,526 92	(120,110 90)	0 00	(120,110 90)
12 Gas Research & Development	0 00	0 00	1,385 32	0 00	0 00	0 00	0 00	0 00	1,385 32	0 00	1,385 32
13 Transtext	0 00	0 00	(1,233 39)	0 00	0 00	0 00	0 00	0 00	(1,233 39)	0 00	(1,233 39)
	(38,188 55)	2,098 81	156,591 01	(193,879 19)	(63,270 00)	(132,910 00)	(21,883 75)	7,395 92	(284,045 75)	(39,375 00)	(244,670 75)

GULF POWER COMPANY

CONSERVATION COSTS Per PROGRAM
ACTUAL EXPENSES
For the Period: October, 1995 Through September, 1996

Actual	Depre/Amort & Return	Payroll & Benefits	Materials & Expenses	Advertising	Incentives	Outside Services	Vehicles	Other	Sub-Total	Program Revenues	Total
1 Residential Energy Audit	0.00	342,553.98	45,816.40	143,106.31	0.00	0.00	11,228.68	0.00	542,705.37	0.00	542,705.37
2 Gulf Express	0.00	51,702.38	217,085.87	0.00	0.00	0.00	550.11	0.00	269,338.36	0.00	269,338.36
3 In Concert with the Environment	0.00	27,616.78	106,361.70	0.00	0.00	0.00	368.64	0.00	134,347.12	0.00	134,347.12
4 Good Cents Environmental	0.00	29,994.33	10,089.11	10,179.99	0.00	0.00	1,073.98	0.00	51,337.41	0.00	51,337.41
5 Duct Leakage	0.00	19,583.73	2,518.77	0.00	0.00	0.00	660.51	0.00	22,763.01	0.00	22,763.01
6 Geothermal Heat Pump	0.00	44,453.64	53,384.49	2,495.04	0.00	0.00	1,148.63	0.00	101,481.80	0.00	101,481.80
7 Advanced Energy Management	0.00	52,595.65	19,477.79	0.00	0.00	0.00	2,280.47	0.00	74,353.91	0.00	74,353.91
8 Comm/ind Good Cents Building	0.00	341,934.49	24,042.05	43,568.50	0.00	0.00	10,163.52	0.00	419,708.56	0.00	419,708.56
9 Comm/ind E.A. & T.A.A.	0.00	598,318.86	109,832.36	5,942.97	0.00	0.00	14,024.77	0.00	728,118.96	0.00	728,118.96
10 Solar for Schools	0.00	2,019.97	1,134.81	0.00	0.00	0.00	108.94	0.00	3,263.72	0.00	3,263.72
11 Research & Development											
End Use Profiling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geothermal Heat pump	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FCG	0.00	0.00	2,925.00	0.00	0.00	0.00	0.00	0.00	2,925.00	0.00	2,925.00
Desiccant Dehum. H. P.	0.00	0.00	7,895.21	0.00	0.00	0.00	0.00	1,285.04	9,180.25	0.00	9,180.25
Energy Education	2,558.80	0.00	965.71	0.00	0.00	0.00	0.00	32,424.05	35,948.56	0.00	35,948.56
Commercial Technology	113.65	0.00	611.05	0.00	0.00	0.00	0.00	10,744.39	11,469.09	0.00	11,469.09
PJC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closed Loop (Dentist)	0.00	0.00	6,385.36	0.00	0.00	0.00	0.00	0.00	6,385.36	0.00	6,385.36
Closed Loop (Hotel)	0.00	0.00	11,000.00	0.00	0.00	0.00	0.00	0.00	11,000.00	0.00	11,000.00
Van Norman	0.00	0.00	735.02	0.00	0.00	0.00	0.00	48.44	783.46	0.00	783.46
Shores	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stinly Loop Mat	0.00	0.00	530.93	0.00	0.00	0.00	0.00	4.41	535.34	0.00	535.34
Dunes	0.00	0.00	2,187.45	0.00	0.00	0.00	0.00	20.59	2,208.04	0.00	2,208.04
	2,672.45	0.00	33,235.73	0.00	0.00	0.00	0.00	44,526.92	80,435.10	0.00	80,435.10
12 Gas Research & Development	0.00	0.00	6,383.32	0.00	0.00	0.00	0.00	0.00	6,383.32	0.00	6,383.32
13 Transtext	0.00	0.00	9,296.61	0.00	0.00	0.00	0.00	0.00	9,296.61	0.00	9,296.61
	2,672.45	1,510,773.81	638,659.01	205,292.81	0.00	0.00	41,608.25	44,526.92	2,443,533.25	0.00	2,443,533.25

GULF POWER COMPANY

CONSERVATION COSTS Per PROGRAM
SUMMARY OF EXPENSES BY PROGRAM MONTH
For the Period: October, 1995 Through September, 1996

PROGRAMS	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	TOTAL
1 Residential Energy Audits	25,380.52	38,726.88	110,194.55	37,334.29	41,277.90	48,151.12	27,536.18	36,116.23	46,591.20	61,764.58	34,619.56	34,992.58	542,705.37
2 Gulf Express	3,534.69	37,551.81	40,749.83	4,060.15	30,131.44	4,878.83	5,741.11	29,550.33	17,440.39	34,665.02	10,485.57	50,571.39	269,338.36
3 In Concert with the Environment	2,556.93	2,720.18	3,184.77	17,188.94	5,103.31	1,253.73	3,405.76	2,085.06	89,583.18	1,873.05	2,012.09	3,329.11	134,347.12
4 Good Cents Environmental	2,754.73	3,393.40	8,536.16	1,676.60	3,114.00	4,968.80	6,953.13	3,458.98	2,734.16	2,886.44	7,411.97	3,429.04	51,337.41
5 Duct Leakage	0.00	0.00	0.00	0.00	0.00	0.00	3,844.45	4,304.99	3,680.11	3,818.90	4,368.23	2,746.33	22,763.01
6 Geothermal Heat Pump	0.00	0.00	0.00	0.00	0.00	0.00	7,902.24	10,988.58	9,512.70	16,476.69	35,643.57	20,758.04	101,481.80
7 Advanced Energy Management	0.00	0.00	0.00	0.00	0.00	0.00	18,828.61	7,088.68	10,227.57	16,159.86	10,984.52	11,064.67	74,353.91
8 Comm/nd Good Cents Bldg	32,251.11	35,084.81	43,074.06	31,379.65	28,548.55	30,262.46	31,518.34	45,571.43	28,747.12	38,222.73	36,990.46	37,957.94	419,708.56
9 Comm/nd E.A. & T.A.A.	57,277.04	62,512.94	67,699.14	80,447.09	61,591.90	60,066.75	51,763.13	59,587.30	59,060.21	59,231.44	59,136.15	69,725.87	728,118.96
10 Solar for Schools	0.00	0.00	0.00	0.00	0.00	0.00	1,458.84	673.72	199.95	319.34	311.13	300.74	3,263.72
11 Research & Development													
End Use Profiling	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
Geothermal Heat Pump	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
FCG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,925.00
Desiccant Dehum. H.P.	533.65	212.98	7,916.99	(1,957.32)	821.63	114.59	114.28	113.81	138.12	600.38	423.16	145.98	9,180.25
Energy Education	(128.74)	694.96	2,377.91	3,069.00	3,153.27	3,145.24	4,131.14	4,423.89	3,919.04	3,421.32	3,883.24	3,858.30	35,948.57
Commercial Technology	(158.18)	230.28	787.95	1,016.95	1,044.87	1,042.21	1,244.92	1,744.19	1,176.25	1,011.64	1,159.82	1,168.19	11,469.09
PJC	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
Closed Loop (Danlist)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,385.36	0.00	0.00	0.00	8,385.36
Closed Loop (Hotel)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11,000.00	0.00	0.00	0.00	11,000.00
Van Norman	0.00	0.00	0.00	0.00	0.00	0.00	180.45	178.46	133.00	213.00	2.00	78.55	783.46
Shores	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(15,000.00)	15,000.00	0.00
Sinky Loop Mat	0.00	0.00	0.00	0.00	49.77	20.54	241.31	37.17	0.00	122.00	60.14	4.41	535.34
Dunes	0.00	199.68	28.09	25.84	1,386.99	20.54	91.33	115.47	185.00	73.05	33.27	48.78	2,208.04
	246.73	1,337.90	11,112.94	2,154.47	6,456.53	4,343.12	6,003.43	6,612.99	22,936.77	5,441.39	(9,438.37)	23,227.21	80,435.11
12 Gas Research & Development	0.00	5,661.00	643.23	(0.33)	3.27	5.02	4.90	0.95	3.79	6.61	9.02	25.86	6,383.32
13 Transact	2,989.39	1,217.54	3,017.27	29.65	512.15	1,530.61	0.00	0.00	0.00	0.00	0.00	0.00	9,296.61
Recoverable Conservation Expenses	126,991.14	188,226.27	288,221.75	154,270.51	176,839.05	155,478.44	165,010.12	206,039.27	290,727.15	240,886.03	192,714.90	258,128.68	2,443,533.26

Florida Public Service Commission
Docket No. 960002-EG
GULF POWER COMPANY
Witness: Margaret D. Neyman
Exhibit No. (MDN-1)
Schedule C1-3
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GULF POWER COMPANY

ENERGY CONSERVATION ADJUSTMENT
For the Period: October, 1995 through September, 1996

Conservation Revenues	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	TOTAL
1 a Residential Conservation Audit Fees	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
b (Other Fees)	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
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
2 Conservation Adjustment Revenues	158,550.44	150,482.70	178,272.27	181,221.83	168,421.58	173,329.85	228,961.42	309,109.83	328,798.98	368,547.87	348,671.63	311,894.05	2,902,340.23
3 Total Revenues	158,550.44	150,482.70	178,272.27	181,221.83	168,421.58	173,329.85	228,961.42	309,109.83	328,798.98	368,547.87	348,671.63	311,894.05	2,902,340.23
4 Adjustment not Applicable to Period - Prior True Up	(4,994.48)	(4,994.48)	(4,994.48)	(4,994.48)	(4,994.48)	(4,994.43)	(12,785.50)	(12,785.50)	(12,785.50)	(12,785.50)	(12,785.50)	(12,785.50)	(108,679.83)
5 Conservation Revenues Applicable to Period	151,555.96	145,488.22	173,277.79	176,227.35	163,427.10	168,335.42	216,175.92	296,324.33	316,013.48	355,862.37	335,886.13	299,108.55	2,795,660.40
6 Conservation Expenses (Form CT-3 Page 8)	126,991.14	188,226.27	288,221.75	154,270.51	178,839.05	155,478.44	165,010.12	206,039.22	290,727.15	240,886.03	192,714.90	258,128.68	2,443,533.26
7 True Up this Period (Line 5 minus Line 6)	24,564.82	(42,738.05)	(114,943.96)	21,956.84	(13,411.95)	12,856.98	51,165.80	90,285.11	25,286.33	114,976.34	143,171.23	40,979.87	352,127.14
8 Interest Provision this Period (Page 10, Line 10)	(228.03)	(246.26)	(604.73)	(780.56)	(709.19)	(697.72)	(519.64)	(141.41)	177.47	553.52	1,186.77	1,664.66	(345.12)
9 True Up & Interest Provision Beginning of Month	(61,355.91)	(32,024.64)	(70,034.47)	(1,058,888.88)	(154,418.12)	(183,544.78)	(148,391.09)	(82,959.43)	19,969.77	58,217.05	184,532.41	341,675.91	(61,355.91)
10 Prior True Up Collected or Refunded	4,994.48	4,994.48	4,994.48	4,994.48	4,994.48	4,994.43	12,785.50	12,785.50	12,785.50	12,785.50	12,785.50	12,785.50	108,679.83
End of Period- Net True Up	(32,024.64)	(70,034.47)	(180,588.88)	(154,418.12)	(163,544.78)	(148,391.09)	(82,959.43)	19,969.77	58,217.05	184,532.41	341,675.91	397,105.94	397,105.94

GULF POWER COMPANY

ENERGY CONSERVATION ADJUSTMENT
For the Period: October, 1995 through September, 1996

Interest Provision	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	TOTAL
1 Beginning True up Amount	(61,355.91)	(32,024.64)	(70,034.47)	(180,588.68)	(154,418.12)	(163,544.78)	(146,391.09)	(82,959.43)	19,969.77	58,217.05	184,532.41	341,675.91	
2 Ending True up before Interest	(31,796.61)	(69,788.21)	(179,983.95)	(153,637.56)	(162,835.59)	(145,693.37)	(82,439.79)	20,111.18	58,039.58	183,978.89	340,489.14	395,441.28	
3 Total beginning & ending	(93,152.52)	(101,812.85)	(250,018.42)	(334,226.24)	(317,253.71)	(309,238.15)	(228,830.88)	(62,848.25)	78,009.35	242,195.94	525,021.55	737,117.19	
4 Average True up Amount	(46,576.26)	(50,906.43)	(125,009.21)	(167,113.12)	(158,626.86)	(154,619.08)	(114,415.44)	(31,424.13)	39,004.68	121,097.97	262,510.78	368,558.60	
5 Interest Rate First Day Reporting Business Month	5.9400	5.8100	5.8000	5.8100	5.4000	5.3300	5.5000	5.4000	5.4000	5.5200	5.4500	5.4000	
6 Interest Rate First Day Subsequent Business Month	5.8100	5.8000	5.8100	5.4000	5.3300	5.5000	5.4000	5.4000	5.5200	5.4500	5.4000	5.4400	
7 Total of Lines 5 and 6	11.7500	11.6100	11.6100	11.2100	10.7300	10.8300	10.9000	10.8000	10.9200	10.9700	10.8500	10.8400	
8 Average Interest rate (50% of Line 7)	5.8750	5.8050	5.8050	5.6050	5.3650	5.4150	5.4500	5.4000	5.4600	5.4850	5.4250	5.4200	
9 Monthly Average Interest Rate Line 8 x 12	0.004896	0.004838	0.004838	0.004871	0.004471	0.004513	0.004542	0.004500	0.004550	0.004571	0.004521	0.004517	
10 Interest Provision (line 4 X 9)	(228.03)	(246.26)	(804.73)	(780.56)	(709.19)	(697.72)	(519.64)	(141.41)	177.47	553.52	1,186.77	1,664.66	(345.12)

GULF POWER COMPANY

SCHEDULE OF CAPITAL INVESTMENT, DEPRECIATION AND RETURN
 Energy Education
 For the Period October, 1995 Through September, 1996

Line No.	Description	Beginning of Period	April	May	June	July	August	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)		251.65	251.65	251.65	251.65	251.65	251.65	1,509.90
4.	Cumulative Investment	21,139	21,139	21,139	21,139	21,139	21,139	21,139	
5.	Less: Accumulated Amortization	755	1,007	1,258	1,510	1,762	2,013	2,265	
6.	Net Investment	20,384	20,132	19,881	19,629	19,377	19,126	18,874	
7.	Average Net Investment		20,258	20,007	19,755	19,503	19,252	19,000	
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		180.42	178.18	175.94	173.70	171.45	169.21	1,048.90
10.	Total Amortization & Return (Line 3 + 9)		432.07	429.83	427.59	425.35	423.10	420.86	2,558.80

Notes:

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

GULF POWER COMPANY

SCHEDULE OF CAPITAL INVESTMENT, DEPRECIATION AND RETURN
 Commercial Technology
 For the Period October, 1995 Through September, 1996

Line No.	Description	Beginning of Period	April	May	June	July	August	September	Total
1.	Investments (Net of Retirements)				0	0	0	0	
2.	Amortization Base		939	939	939	939	939	939	
3.	Amortization Expense (A)		11.18	11.18	11.18	11.18	11.18	11.18	67.08
4.	Cumulative Investment	939	939	939	939	939	939	939	
5.	Less: Accumulated Amortization	34	45	56	68	79	90	101	
6.	Net Investment	905	894	883	871	860	849	838	
7.	Average Net Investment		899.00	888.00	877.00	866.00	855.00	844.00	
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		8.01	7.91	7.81	7.71	7.61	7.52	46.57
10.	Total Amortization & Return (Line 3 + 9)		19.19	19.09	18.99	18.89	18.79	18.70	113.65

Notes:

(A) 1995 Additions Amortized over 7 Year Period

(B) Revenue Requirement Return is 10.6872%

GULF POWER COMPANY

Reconciliation and Explanation of
Differences Between Filing and FPSC Audit
Report for Months, October, 1995, through September, 1996

(If no differences exist, please state.)

NO DIFFERENCES

Program Description and Progress

Program Title: Home 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 Accomplishments: 3,350 residential energy audits were forecasted to be completed compared to 3,480 actual audits completed for a difference of 130 audits over projection.

Program Fiscal Expenditures: Forecasted expenses were \$510,959 compared to actual expenses of \$542,705 resulting in a deviation of \$31,746 over budget. Expenditure for this program is over budget due to an increase in the number of audits performed and an increase in the amount of labor time dedicated to each audit.

Program Progress Summary: Since the approval of this program Gulf has performed 121,220 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.

Program Description and Progress

Program Title: Gulf Express Loan Program

Program Description: The objective of this program is 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.

Program Accomplishments: There were 295 loans forecasted to be completed compared to 425 actual loans completed. This results in a deviation of 130 loans above the goal.

Program Fiscal Expenditures: Forecasted expenses were \$224,884 compared to actual expenses of \$269,338 resulting in a deviation of \$44,454 over budget. The expenses are over budget due to an increased number of loans completed and slightly above average loan amounts.

Program Progress Summary: Since the approval of the program, Gulf has completed 1692 Gulf Express Loans.

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 Accomplishments: In Concert With The Environment was not presented to students during this recovery period. The data entry portion of the program was undergoing modifications. All expenses were associated with program maintenance and modification.

Program Fiscal Expenditures: Expenses for the 12 months ending September, 1996, were projected at \$79,518 compared to actual expenses of \$134,347 for a deviation of \$54,829 over budget. These expenses were for program maintenance and modification. The data entry portion of the program was being modified. Therefore the program was not presented to any students.

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 Accomplishments: During the this recovery period, 3 Good Cents Environmental Homes were constructed compared to a goal of 38 units for a deviation of 35. This program was approved in October, 1996, as part of the conservation programs in Gulf's Demand-Side Management Plan, Docket No. 941172-EI. It is still a relatively unknown program in the new construction field. Additional training will continue for employees, builders and trade allies.

Program Fiscal Expenditures: Expenses for the 12 months ending September, 1996, are \$51,337. Projected expenses were \$69,858 for a deviation of \$18,521 below budget. This program is below budget due to reduced advertising during this period.

Program Description and Progress

Program Title: Duct Leakage Repair

Program Description: 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.

Program Accomplishments: During the this recovery period, no Duct Leakage Repair units were completed compared to a goal of 115 units. Gulf has provided demonstrations and training to builders, dealers and homeowners regarding duct leakage and duct testing methods and procedures during this period.

Program Fiscal Expenditures: Projected expenses were \$56,388 compared to actual expenses of \$22,763 for a deviation of 33,625 under budget.

Program Progress Summary: Program activities have related to education, training, and program development.

Program Description and Progress

Program Title: Geothermal Heat Pump

Program Description: 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.

Program Accomplishments: During the this recovery period, 105 Geothermal Heat Pump units were installed compared to a goal of 53 units. This results in a deviation of 52 units over goal. This program is over projection due to a high degree of acceptability in the market as well as a number of unbudgeted projects coming on-line during this period.

Program Fiscal Expenditures: Projected expenses for the period were \$148,920 compared to actual expenses of \$101,482 for a deviation of \$47,438 under budget. This program is under budget due to a change in the rebate portion of the program. The expenses were projected prior to the final approval of program standards and included a rebate for all geothermal units. The program standards were approved later to include a rebate only for multi-family units, thus reducing the expenses for the program.

Program Progress Summary: Program progress to date has been related primarily to education, training, and program development with only demonstration/educational installations.

Program Description and Progress

Program Title: Advanced Energy Management

Program Description: 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.

Program Accomplishments: During this period, 3,625 customers were projected for the program. However, at this time the 180 customers from the Transtext pilot are the only participating customers in the program. The new AEM program start was delayed pending final approval of the program itself. Extensive progress was made regarding selecting the equipment vendor. Additional evaluation of the approximately 180 customers remaining on the Transtext AEM Pilot was also conducted.

Program Fiscal Expenditures: Expenses were projected at \$160,080 compared to actual expenses of \$74,354 for a deviation of \$85,726 under budget. It is expected that there will be participants during the next recovery period.

Program Progress Summary: The AEM RFP responses were analyzed and a vendor was selected. Equipment and installation is expected during the second quarter of 1997.

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 Accomplishments: Our goal during the current period was 281 installations compared to actual installations of 230 for a difference of 51 below goal. The deficit is attributed to a decrease in new construction of commercial buildings. Additionally, more time was required in each audit due to customer needs.

Program Fiscal Expenditures: Forecasted expenses were \$398,443 compared to actual expenses of \$419,709 for a deviation of \$21,266 over budget. The deviation is primarily due to a significant increase in the labor spent on each audit due to customers requesting more detailed information regarding the Good Cents Building program. This increase is offset somewhat by a decrease in expenses for advertising.

Program Progress Summary: A total of 6,996 commercial/industrial buildings have qualified for the Good Cents designation since the program was developed in 1977.

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 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 Accomplishments: During the twelve month period ending September, 1996, our goal was 365 while actual results were 386 for a difference of 21 over goal.

Program Fiscal Expenditures: Forecasted expenses were \$815,580 compared to actual expenses of \$728,119 for a deviation of \$87,461 under budget. This program is under budget due to a decrease in labor associated with each audit, a decrease in outside services and other expenses.

Program Progress Summary: A total of 10,539 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.

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 Accomplishments: During the period, Gulf began evaluating various implementation options and developing the "green pricing" billing mechanism and promotion plan. One middle school is participating in the program and the optional "green pricing" billing mechanism will begin in Fall, 1996.

Program Fiscal Expenditures: Projected expenses for the period were \$7,500 compared to actual expenses of \$3,264 for a deviation of \$4,236 below budget.

Program Progress Summary: 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, and 513 customers have signed up to contribute to this program.

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.

End-Use Profiling - The purpose of this 3-year project is to develop and provide detailed end use data for the major customer classes (Residential, Commercial and Industrial) as a baseline database for use in forecasting models and for analyzing the effectiveness of demand side management (DSM) programs.

The first year plan called for the sites to be selected from the following Commercial sectors: Churches, Grocery Stores, Health Care, Restaurants and Schools.

The second year plan called for metering multi-family residential dwellings and the remaining Commercial sectors: Hotels/Motels, Miscellaneous, Offices, Retail and Warehouses.

The third year plan, called for metering Industrial sites and Residential Mobile Homes. Residential Single Family homes are currently being end use metered as part of a separate study at Georgia Power Company. The Residential Single Family sample will be augmented with sites from the other operating companies. Gulf will have one industrial site in this project.

Florida 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. The Research and Development (R & D) Task Team has been given the charge of investigating and reviewing several demand side management measures and reporting back to the Conservation Steering Committee with its findings and recommendations. Reflective roof coatings, light colored roofs, ceiling fans, occupancy sensors, dual path air conditioning systems, heat pipe enhanced direct exchange air conditioning and variable air volume are the measures currently being reviewed.

Included in the variable air volume research are the Delchamps Supermarket Test and the Bay County Library Test, both tailored collaboration projects between EPRI and Gulf Power Company.

Projects that were currently being tested and monitored are Moisture and Refrigerant Lab Test, Desiccant Enhanced Air Conditioning, and Moisture and Refrigerants Field Test.

Desiccant Dehumidification Project - Is a research project involving an air conditioning/dehumidification unit in the commercial market segment. The project is expected to last three years and concluding data will include equipment costs, installation and monitoring.

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.

Pensacola Junior College (PJC) - Is a test project which will allow for full testing of commercial cooking equipment in the new culinary arts and test kitchen at Pensacola Junior College. Final construction and inspections have been completed. Customer demonstrations and student training began the last quarter of 1995.

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 polyethelene 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 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 (not much hot needed).

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 Shores - The Shores is a Gulf-front condominium complex consisting of 52 units. The existing project 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.

A 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, result 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.

The Dunes - Is a project intended to monitor two heat pump water heaters in a hotel. The project has been delayed due to structural damage caused by Hurricane Opal. The phone line needed for monitoring is installed but the remainder of the equipment will be delayed for two to three months. When the project is able to begin, 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.

Program Fiscal Expenditures: Program expenses were forecasted at \$200,546 compared to actual expenses of \$80,435 for a deviation of \$120,111 under budget. Project expenses were as follows: End-Use Profiling, \$0; Geothermal Heat Pump, \$0; FCG, \$2,925; Desiccant Dehumidification Heat Pump, \$9,180.25; Efficiency Store - Energy Education, \$35,948.56; Efficiency Store - Commercial Technology, \$11,469.09; PJC, \$0; Slinky Loop Mat Heat Pump, \$535.34; Closed Loop - Dentist Office, \$6,385.36; Closed Loop - Hotel, \$11,000; Van Norman Project, \$783.46; Shores Condo, \$0; The Dunes, \$2,208.04.

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 US 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 determine the efficiency of the overall process. Gulf

estimates that the cost of this study will not exceed \$15,000.

Program Fiscal Expenditures: Expenses were projected to be \$4,998 compared to actual expenses of \$6,383 for a deviation of \$1,385. Expenses are slightly over for this period but are not expected to exceed the totals referenced with each project.

Program Description and Progress

Program Title: TranstextT - Advanced Energy Management System (Pilot)

Program Description: This program was developed to encourage energy management by providing customers with an advanced energy management system that allows the homeowner to control their heating, air conditioning and water heating in response to variable pricing. At the heart of this program is the TranstextT Advanced Energy Management System and an innovative variable energy pricing rate schedule.

The experimental rate schedule allows the price of electric energy to vary during the day and by season in relation to the Company's cost of producing or purchasing that energy. The TranstextT System allows the customers to make choices and improve the control of electric energy consumption. These choices will be made in response to the different prices for electric energy at different times of the day and season, thus providing customers greater understanding and control of their energy consumption and monthly bills.

Program Accomplishments: This program was completed in the test phased in the last quarter of 1993. Most of the customers who had the test equipment installed at their house and were on the variable rate (Rate Schedule RSVP) have chosen to stay on the program.

Program Fiscal Expenditures: Program expenses were forecasted at \$10,530 compared to actual expenses of \$9,297 for a deviation of \$1,233 under budget. Expenses for this period were for actual expenses incurred in October, November and December, 1995. Beginning in 1996, expenses for the residential energy management program were projected and incurred in the Advanced Energy Management program. The expenses for this period were for maintenance of the current customer equipment until the present Transtext customers can be converted to the new Advanced Energy Management program.