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April 30, 2010

Ms. Ann Cole, Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee FL 32399-0850

Dear Ms. Cole:

RE: Docket No. 090002-EG, Energy Conservation Cost Recovery Clause

Enclosed for official filing are an original and fifteen copies of the final true-up testimony and exhibit for the period January – December 2009 of John N. Floyd in the above referenced docket.

Sincerely,

*Susan D. Ritenour (sw)*

COM 5  
APA 1 ym  
ECR 1  
GCL 1 Enclosures  
RAD \_\_\_\_\_ cc: Beggs & Lane  
SSC \_\_\_\_\_ Jeffrey A. Stone, Esq.  
ADM \_\_\_\_\_  
OPC \_\_\_\_\_  
CLK Court Reporters

DOCUMENT NUMBER - DATE

03614 MAY-30

FPSC-CORP-03-000001

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: **Energy Conservation Cost Recovery** )

Docket No.: **100002-EG**

**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true copy of the foregoing was furnished by U. S. mail this 30<sup>th</sup> of April, 2010, on the following:

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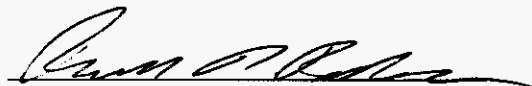
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**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

**ENERGY CONSERVATION COST  
RECOVERY CLAUSE**

**DOCKET NO. 100002-EG**

**PREPARED DIRECT TESTIMONY AND  
EXHIBIT OF  
JOHN N. FLOYD**

**Final True-up  
JANUARY - DECEMBER 2009**

**May 3, 2010**



COMMUNICATIONS SECTION

3614 MAY-3 2010

FPSC-COMMISSION CLERK

1 Gulf Power Company

2 Before the Florida Public Service Commission  
3 Prepared Direct Testimony and Exhibit of  
4 John N. Floyd  
5 Docket No. 100002-EG  
6 Energy Conservation Cost Recovery Clause  
7 May 3, 2010

8 Q. Will you please state your name, business address,  
9 employer and position?

10 A. My name is John N. Floyd and my business address is One  
11 Energy Place, Pensacola, Florida 32520. I am employed  
12 by Gulf Power Company as the Economic Evaluation and  
13 Market Reporting Team Leader.

14 Q. Mr. Floyd, please describe your educational background  
15 and business experience.

16 A. I received a Bachelor Degree in Electrical Engineering  
17 from Auburn University in 1985. After serving four  
18 years in the U.S. Air Force, I began my career in the  
19 electric utility industry at Gulf Power in 1990 and have  
20 held various positions within the Company in Power  
21 Generation, Metering, Power Delivery Distribution, and  
22 Marketing. In my present position, I am responsible for  
23 Energy Conservation Cost Recovery (ECCR) filings,  
24 economic evaluations, market research, and other  
25 marketing services activities.

DOCUMENT NUMBER-DATE

03614 MAY-3 2

FPSC-COMMISSION OFFICE

1 Q. Have you previously testified before this Commission in  
2 connection with the Energy Conservation Cost Recovery  
3 Clause?

4 A. Yes.

5

6 Q. Mr. Floyd, what is the purpose of your testimony?

7 A. The purpose of my testimony is to present the results of  
8 the approved Energy Conservation Cost Recovery Clause  
9 programs and related expenses for January, 2009 through  
10 December, 2009.

11

12 Q. Are you familiar with the documents concerning the  
13 Energy Conservation Cost Recovery Clause and its related  
14 true-up and interest provisions?

15 A. Yes, I am.

16

17 Q. Have you verified that to the best of your knowledge and  
18 belief, this information is correct?

19 A. Yes, I have.

20 Counsel: We ask that Mr. Floyd's exhibit consisting of  
21 6 Schedules, CT-1 through CT-6, be marked for  
22 identification as:

23 Exhibit No. \_\_\_\_ (JNF-1)

24 Q. Would you summarize for this Commission the deviations  
25 between the actual expenses for this recovery period and

1 the estimated/actual estimate of expenses previously  
2 filed with this Commission?

3 A. The estimated/actual true-up net expenses for the entire  
4 recovery period January 2009 through December 2009,  
5 previously filed were \$11,854,904 while the actual  
6 expenses incurred in 2009 were \$10,576,197 resulting in  
7 a variance of (\$1,278,707) or (10.8%). See Schedule CT-  
8 2, Line 9.

9

10 Q. Mr. Floyd, would you explain the January 2009 through  
11 December 2009 variance?

12 A. Yes. The variance was a result of less expenses  
13 incurred compared to estimated in the following  
14 programs: Residential Geothermal Heat Pump Program,  
15 under \$59,937; Energy Select, under \$554,408;  
16 Commercial/ Industrial Energy Analysis, under \$69,117;  
17 GoodCents Commercial Buildings, under \$79,124;  
18 Commercial Geothermal Heat Pump, under \$57,068; Energy  
19 Services, under \$80,522; Renewable Energy, under  
20 \$165,733; Conservation Demonstration and Development,  
21 under \$135,058; Solar Thermal Water Heating Program  
22 Pilot, under \$129,361; and Energy Education Program,  
23 under \$32,509. The underages experienced in these  
24 programs are partially offset by an overage of expenses  
25 in the Residential Energy Surveys program of \$84,130.

1 The resulting net variance is \$1,278,707 below the  
2 estimated/actual program expenses filed in September  
3 2009. A more detailed description of the deviations is  
4 contained in Schedule CT-6.

5

6 Q. Mr. Floyd, what was Gulf Power's adjusted net true-up  
7 for the period January 2009 through December 2009?

8 A. There was an over-recovery of \$1,325,593 as shown on  
9 Schedule CT-1.

10

11 Q. Please describe the results of your programs during the  
12 recovery period.

13 A. A more detailed review of each of the programs is  
14 included in my Schedule CT-6. The following is a  
15 synopsis of program results during this recovery period.

16 (A) Residential Energy Surveys - During this period,  
17 the Company completed 7,710 surveys compared to the  
18 projection of 5,600 surveys.

19 (B) Residential Geothermal Heat Pump - During the 2009  
20 recovery period, a total of 72 geothermal heat  
21 pumps were installed compared to a projection of  
22 200.

23 (C) Energy Select - During this recovery period, there  
24 was a net increase of 234 units with a total of  
25 8,950 units on-line at December 31, 2009. Gulf had

1 projected a net customer addition of 100 units.

2 (D) Commercial/Industrial (C/I) Energy Analysis -

3 During 2009, a total of 588 C/I Energy Analyses  
4 were completed compared to a projection of 550.

5 (E) GoodCents Commercial Buildings - During this

6 recovery period, a total of 90 buildings were built  
7 or improved to GoodCents standards, compared to a  
8 projection of 180.

9 (F) Commercial Geothermal Heat Pump - During the 2009

10 recovery period, there were 14 geothermal heat pump  
11 units installed compared to 20 units projected.

12 (G) Energy Services - For the 2009 recovery period, at

13 the meter reductions of 8,018,445 kWh, winter kW  
14 of 1,559 and summer kW of 1,561 were achieved.

15 The projected results for this period were at the  
16 meter energy reductions of 1,178,470 kWh and at  
17 the meter demand reductions of 510 kW winter and  
18 275 kW summer.

19 (H) Renewable Energy - Costs associated with the

20 Renewable Energy program are provided in Schedule  
21 CT-3, pages 1 through 3. Further description of  
22 these activities can be found in Schedule CT-6,  
23 pages 8 and 9.

24 (I) Conservation Demonstration and Development - Costs

25 associated with the Conservation Demonstration and



1           Development program are provided in Schedule CT-3,  
2           pages 1 through 3. Further description of these  
3           activities can be found in Schedule CT-6, pages 10  
4           through 12.

5           (J) Solar Thermal Water Heating Pilot Program - There  
6           were 94 installations in 2009 compared to a  
7           projection of 75. Costs associated with the Solar  
8           Thermal Water Heating Program Pilot are provided in  
9           Schedule CT-3, pages 1 through 3. Further  
10          description of these activities can be found in  
11          Schedule CT-6, pages 13 and 14.

12          (K) Energy Education Pilot Program - Costs associated  
13          with the Energy Education program are provided in  
14          Schedule CT-3, pages 1 through 3. Further  
15          description of these activities can be found in  
16          Schedule CT-6, pages 15 through 19.

17

18   Q.    Should Gulf's recoverable energy conservation cost for  
19          the period be accepted as reasonable and prudent?

20   A.    Yes.

21

22   Q.    Mr. Floyd, does this conclude your testimony?

23   A.    Yes, it does.

24

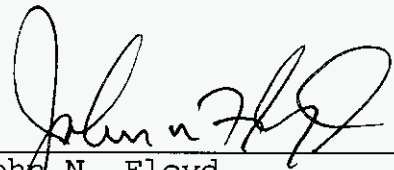
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AFFIDAVIT

STATE OF FLORIDA     )  
                                  )  
COUNTY OF ESCAMBIA    )

Docket No. 100002-EG

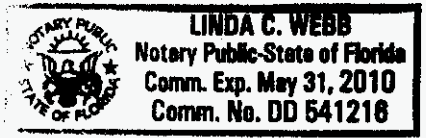
Before me the undersigned authority, personally appeared John N. Floyd, who being first duly sworn, deposes and says that he is the Economic Evaluation and Market Reporting Team Leader of Gulf Power Company, a Florida Corporation, that the foregoing is true and correct to the best of his knowledge, information and belief. He is personally known to me.



\_\_\_\_\_  
John N. Floyd  
Economic Evaluation and Market  
Reporting Team Leader

Sworn to and subscribed before me this 29th day of April, 2010.

Linda C. Webb  
Notary Public, State of Florida at Large



INDEX

Schedule Number	Title	Pages
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GULF POWER COMPANY  
ENERGY CONSERVATION COST RECOVERY  
ADJUSTED NET TRUE-UP  
For the Period: January, 2009 Through December, 2009

	<u>          \$          </u>	<u>          \$          </u>
Actual		
1. Principal	1,263,754	
2. Interest	<u>8,815</u>	
3. Actual Over/(Under) Recovery Ending Balance		1,272,569
Estimated/Actual as filed September 11, 2009		
4. Principal	(61,583)	
5. Interest	<u>8,560</u>	
6. Total Estimated/Actual Over/(Under) Recovery		<u>(53,023)</u>
7. Adjusted Net True-up Over/(Under) Recovery (Line 3 - 6)		<u><u>1,325,593</u></u>

GULF POWER COMPANY  
ENERGY CONSERVATION COST RECOVERY  
ANALYSIS OF ENERGY CONSERVATION PROGRAM COSTS  
ACTUAL compared to ESTIMATED/ACTUAL  
For the Period: January, 2009 Through December, 2009

	<u>Actual</u>	<u>Est/Actual</u>	<u>Difference</u>
	\$	\$	\$
1. Depreciation, Return & Property Tax	1,820,546.48	1,836,273.93	(15,727.45)
2. Payroll & Benefits	3,652,830.01	3,943,981.39	(291,151.38)
3. Materials & Supplies	4,344,963.84	5,230,218.64	(885,254.80)
4. Advertising	1,297,333.37	1,235,508.00	61,825.37
5. Adjustments	0.00	0.00	0.00
6. Other	<u>187,210.00</u>	<u>367,390.71</u>	<u>(180,180.71)</u>
7. Subtotal	11,302,883.70	12,613,372.67	(1,310,488.97)
8. Program Revenues	<u>726,686.54</u>	<u>758,468.37</u>	<u>(31,781.83)</u>
9. Total Program Costs	<u>10,576,197.16</u>	<u>11,854,904.30</u>	<u>(1,278,707.14)</u>
10. Less: Payroll Adjustment	0.00	0.00	0.00
11. Amounts Inc. in Base Rate	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
12. Conservation Adjustment Revenues	<u>8,928,285.58</u>	<u>8,881,655.15</u>	<u>46,630.43</u>
13. Rounding Adjustment	<u>8,928,286.00</u>	<u>8,881,655.00</u>	<u>46,631.00</u>
14. True-up Before Adjustment Over/(Under) Recovery	(1,647,911)	(2,973,249)	1,325,338
15. Interest Provision	8,815	8,560	255
16. Prior Period True-up	2,911,666	2,911,666	0
17. Other	<u>0</u>	<u>0</u>	<u>0</u>
18. End of Period True-up	<u>1,272,569</u>	<u>(53,023)</u>	<u>1,325,593</u>

GULF POWER COMPANY

CONSERVATION COSTS BY PROGRAM  
 VARIANCE ACTUAL Vs ESTIMATED/ACTUAL  
 For the Period: January, 2009 Through December, 2009

Program	Depr/Amort & Return	Payroll & Benefits	Materials & Expenses	Advertising	Other	Sub-Total	Program Revenues	Total
1. Residential Energy Surveys	(2,855.93)	44,046.86	(53,658.75)	96,597.47	0.00	84,129.65	0.00	84,129.65
2. Residential Geothermal Heat Pump	0.00	(29,507.93)	1,359.05	(1,387.72)	(30,400.00)	(59,936.60)	0.00	(59,936.60)
3. Energy <i>Select</i>	(12,871.52)	(84,385.45)	(497,742.36)	8,809.07	0.00	(586,190.26)	(31,781.83)	(554,408.43)
4. Commercial / Industrial Energy Analysis	0.00	(61,431.26)	(5,649.47)	(2,036.07)	0.00	(69,116.80)	0.00	(69,116.80)
5. GoodCents Commerical Buildings	0.00	(77,553.94)	(1,164.50)	(405.00)	0.00	(79,123.44)	0.00	(79,123.44)
6. Commercial Geothermal Heat Pump	0.00	10,334.29	2,797.87	(1,000.00)	(69,200.00)	(57,067.84)	0.00	(57,067.84)
7. Energy Services	0.00	0.00	58.62	0.00	(80,580.71)	(80,522.09)	0.00	(80,522.09)
8. Renewable Energy								
a. Solar for Schools	0.00	0.00	(480.47)	0.00	0.00	(480.47)	0.00	(480.47)
b. EarthCents Solar	0.00	(2,293.33)	348.02	0.00	0.00	(1,945.31)	0.00	(1,945.31)
c. Renewable Energy Initiatives	0.00	(18,317.52)	(144,990.11)	0.00	0.00	(163,307.63)	0.00	(163,307.63)
d. Total	0.00	(20,610.85)	(145,122.56)	0.00	0.00	(165,733.41)	0.00	(165,733.41)
9. Conservation Demonstration and Development	0.00	(63,909.01)	(71,148.70)	0.00	0.00	(135,057.71)	0.00	(135,057.71)
10. Solar Thermal Water Heating Pilot Program	0.00	(870.03)	(127,152.19)	(1,338.94)	0.00	(129,361.16)	0.00	(129,361.16)
11. Energy Education Pilot Program	0.00	(7,264.06)	12,168.19	(37,413.44)	0.00	(32,509.31)	0.00	(32,509.31)
12. Total	(15,727.45)	(291,151.38)	(885,254.80)	61,825.37	(180,180.71)	(1,310,488.97)	(31,781.83)	(1,278,707.14)
13. Less Base Rate Recovery	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14. Total	(15,727.45)	(291,151.38)	(885,254.80)	61,825.37	(180,180.71)	(1,310,488.97)	(31,781.83)	(1,278,707.14)

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CONSERVATION COSTS BY PROGRAM  
ACTUAL EXPENSES  
For the Period: January, 2009 Through December, 2009

Program	Depreciation Property Taxes & Return on Investment	Payroll & Benefits	Materials & Expenses	Advertising	Other	Sub-Total	Program Revenues	Total
1. Residential Energy Surveys	1,871.78	965,817.80	147,894.39	195,008.47	140.00	1,310,732.44	0.00	1,310,732.44
2. Residential Geothermal Heat Pump	0.00	90,031.07	21,853.05	1,112.28	69,200.00	182,196.40	0.00	182,196.40
3. Energy Select	1,818,674.70	1,332,202.55	3,660,106.78	283,809.07	70.00	7,094,863.10	726,686.54	6,368,176.56
4. Commercial / Industrial Energy Analysis	0.00	497,667.74	105,197.53	2,035.93	0.00	604,901.20	0.00	604,901.20
5. GoodCents Commerical Buildings	0.00	489,003.04	62,299.77	1,720.00	0.00	553,022.81	0.00	553,022.81
6. Commercial Geothermal Heat Pump	0.00	54,607.29	7,917.87	0.00	18,800.00	81,325.16	0.00	81,325.16
7. Energy Services	0.00	0.00	449.21	0.00	24,000.00	24,449.21	0.00	24,449.21
8. Renewable Energy								
a. Solar for Schools	0.00	0.00	19.53	0.00	0.00	19.53	0.00	19.53
b. EarthCents Solar	0.00	3,921.01	7,756.68	0.00	0.00	11,677.69	0.00	11,677.69
c. Renewable Energy Initiatives	0.00	130,463.48	119,849.89	2,400.00	0.00	252,713.37	0.00	252,713.37
d. Total	0.00	134,384.49	127,626.10	2,400.00	0.00	264,410.59	0.00	264,410.59
9. Conservation Demonstration and Development								
a. Electrode Boiler	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
b. McDonald's Geothermal Project	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
c. UWF BEST House	0.00	10,685.55	34,656.92	0.00	0.00	45,342.47	0.00	45,342.47
d. Variable Speed Pool Pump	0.00	10,685.44	11,543.35	0.00	0.00	22,228.79	0.00	22,228.79
e. Total	0.00	21,370.99	46,200.27	0.00	0.00	67,571.26	0.00	67,571.26
10. Solar Thermal Water Heating Pilot Program	0.00	9.10	18,250.68	48,661.06	75,000.00	141,920.84	0.00	141,920.84
11. Energy Education Pilot Program	0.00	67,735.94	147,168.19	762,586.56	0.00	977,490.69	0.00	977,490.69
10. Total	1,820,546.48	3,652,830.01	4,344,963.84	1,297,333.37	187,210.00	11,302,883.70	726,686.54	10,576,197.16

4

GULF POWER COMPANY

CONSERVATION COSTS BY PROGRAM  
SUMMARY OF ACTUAL EXPENSES BY PROGRAM BY MONTH  
For the Period: January, 2009 Through December, 2009

PROGRAMS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
1. Residential Energy Surveys Amortization & Return on Investment Total	9,170.54 133.41 9,303.95	100,249.96 132.50 100,382.46	147,692.28 131.59 147,823.87	129,600.13 130.68 129,730.81	115,754.85 129.77 115,884.62	108,940.75 128.86 109,069.61	66,280.87 127.96 66,408.83	131,559.66 127.05 131,686.71	116,453.36 128.67 116,582.03	143,740.35 192.92 143,933.27	206,436.47 254.65 206,691.12	32,981.44 253.72 33,235.16	1,308,860.66 1,871.78 1,310,732.44
2. Residential Geothermal Heat Pump	31,964.00	(3,688.52)	14,527.80	11,996.82	13,458.62	17,111.30	15,423.69	29,864.68	15,295.96	11,340.48	11,913.89	12,987.68	182,196.40
3. Energy Select Amortization & Return on Investment Total	474,183.74 151,312.87 625,496.61	332,444.67 151,372.27 483,816.94	346,841.64 151,306.46 498,148.10	491,024.10 150,983.99 642,008.09	478,860.22 150,703.13 629,563.35	372,301.74 150,965.38 523,267.12	518,135.71 151,274.36 669,410.07	480,852.36 151,481.68 632,334.04	347,357.51 152,065.12 499,422.63	464,170.86 152,380.35 616,551.21	388,420.52 152,396.28 540,816.80	581,595.33 152,432.81 734,028.14	5,276,188.40 1,818,674.70 7,094,863.10
4. Commercial / Industrial Energy Analysis	82,756.49	54,490.01	40,762.63	36,066.72	38,963.84	46,227.12	59,695.02	47,416.92	42,265.85	45,444.34	39,892.96	70,919.30	604,901.20
5. GoodCents Commerical Buildings	74,820.87	44,945.47	41,078.87	42,259.17	39,154.35	41,437.89	57,419.29	41,343.00	36,382.83	38,498.63	35,428.33	60,254.11	553,022.81
6. Commercial Geothermal Heat Pump	6,412.88	4,553.01	4,033.26	3,983.87	4,443.22	9,511.65	15,087.29	5,114.44	4,200.29	3,896.28	8,122.73	11,966.24	81,325.16
7. Energy Services	0.00	0.00	0.00	0.00	0.00	390.59	(390.59)	449.21	(334.21)	24,334.21	0.00	0.00	24,449.21
8. Renewable Energy													
a. Solar for Schools	0.00	0.00	0.00	0.00	0.00	16.98	(16.98)	19.53	(14.53)	14.53	0.00	0.00	19.53
b. EarthCents Solar	1,012.17	971.83	909.91	920.87	930.09	921.45	1,068.97	1,202.65	808.42	940.20	939.11	1,052.02	11,677.69
c. Renewable Energy Initiatives	33,134.24	39,712.34	52,127.07	33,650.27	51,658.01	41,791.50	39,198.89	33,980.27	30,836.30	30,345.75	(128,208.62)	(5,512.65)	252,713.37
d. Total	34,146.41	40,684.17	53,036.98	34,571.14	52,588.10	42,729.93	40,250.88	35,202.45	31,630.19	31,300.48	(127,269.51)	(4,460.63)	264,410.59
9. Conservation Demonstration and Development													
a. Electrode Boiler	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. McDonald's Geothermal Project	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. UWF BEST House	26,949.38	1,829.01	1,437.60	1,465.68	1,445.09	1,825.05	2,169.27	1,824.23	1,373.64	1,538.99	1,547.84	1,936.69	45,342.47
d. Variable Speed Pool Pump	1,949.36	1,829.01	1,437.60	1,465.65	1,445.06	1,825.04	2,169.27	1,824.21	1,755.12	3,043.99	1,547.82	1,936.66	22,228.79
e. Total	28,898.74	3,658.02	2,875.20	2,931.33	2,890.15	3,650.09	4,338.54	3,648.44	3,128.76	4,582.98	3,095.66	3,873.35	67,571.26
10. Solar Thermal Water Heating Pilot Program	625.00	4,484.55	5,036.15	10,926.51	27,472.63	9,025.00	16,893.00	5,595.25	9,463.32	3,625.00	20,463.00	28,311.43	141,920.84
11. Energy Education Pilot Program	15,370.70	15,790.40	47,382.19	63,154.53	180,721.42	105,231.55	107,069.96	72,590.85	127,434.66	109,710.92	50,571.60	82,461.91	977,490.69
12. Recoverable Conservation Expenses	909,795.65	749,116.51	854,705.05	977,628.99	1,105,140.30	907,651.85	1,051,805.98 #	1,005,245.99	885,472.31	1,033,217.80	789,726.58	1,033,576.69	11,302,883.70

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GULF POWER COMPANY  
ENERGY CONSERVATION ADJUSTMENT  
CALCULATION OF OVER/UNDER RECOVERY  
For the Period: January, 2009 Through December, 2009

Conservation Revenues	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	SEPTEMBER* ADJUSTMENT	OCTOBER	NOVEMBER	DECEMBER	TOTAL
1. Energy Select RSVP Fees	54,526.98	56,911.84	54,273.47	51,726.85	53,367.26	63,569.57	72,272.40	70,119.38	68,532.95	0.00	64,505.34	61,276.93	55,603.57	726,686.54
2. Over/(Under) Recovery	681,773.14	608,114.30	609,095.05	626,024.44	747,458.98	957,118.64	907,754.12	878,874.10	802,824.94	0.00	740,086.88	561,033.97	808,127.02	8,928,285.58
3. Total Revenues	736,300.12	665,026.14	663,368.52	677,751.29	800,826.24	1,020,688.21	980,026.52	948,993.48	871,357.89	0.00	804,592.22	622,310.90	863,730.59	9,654,972.12
4. Adjustment not Applicable to Period - Prior True Up	215,791.33	215,791.33	215,791.33	215,791.33	215,791.33	215,791.33	215,791.33	215,791.33	215,791.33	0.00	215,791.33	215,791.33	215,791.37	2,589,496.00
5. Conservation Revenues Applicable to Period	952,091.45	880,817.47	879,159.85	893,542.62	1,016,617.57	1,236,479.54	1,195,817.85	1,164,784.81	1,087,149.22	0.00	1,020,383.55	838,102.23	1,079,521.96	12,244,468.12
6. Conservation Expenses (CT-3, Page 3, Line 10)	909,795.65	749,116.49	854,705.08	977,628.97	1,105,140.30	907,651.85	1,051,605.96	1,005,246.01	885,469.79	0.00	1,033,220.33	789,726.58	1,033,576.69	11,302,883.70
7. True Up this Period (Line 5 - 6)	42,295.80	131,700.98	24,454.77	(84,086.35)	(88,522.73)	328,827.69	144,211.89	159,538.80	201,679.43	0.00	(12,836.78)	48,375.65	45,945.27	941,584.42
8. Interest Provision this Period (CT-3, Page 5, Line 11)	1,565.48	1,731.02	1,387.59	917.34	588.09	520.34	526.10	430.63	361.19	(21.96)	315.94	266.99	226.21	8,814.96
9. True Up & Interest Provision Beginning of Month	2,911,666.06	2,739,736.01	2,657,376.68	2,467,427.71	2,168,467.37	1,864,741.40	1,978,298.10	1,907,244.76	1,851,422.86	1,837,672.15	1,837,650.19	1,609,338.02	1,442,189.33	2,911,666.06
10. Prior True Up Collected or Refunded	(215,791.33)	(215,791.33)	(215,791.33)	(215,791.33)	(215,791.33)	(215,791.33)	(215,791.33)	(215,791.33)	(215,791.33)	0.00	(215,791.33)	(215,791.33)	(215,791.37)	(2,589,496.00)
11. End of Period- Net True Up	2,739,736.01	2,657,376.68	2,467,427.71	2,168,467.37	1,864,741.40	1,978,298.10	1,907,244.76	1,851,422.86	1,837,672.15	1,837,650.19	1,609,338.02	1,442,189.33	1,272,569.44	1,272,569.44

\*An interest adjustment was made in September as a result of capitalizing the Residential Energy Survey Displays which were previously booked to O&M.

Florida Public Service Commission  
Docket No. 100002-EG  
GULF POWER COMPANY  
Witness: John N. Foyd  
Exhibit No. \_\_\_\_\_ (JNF-1)  
Schedule CT-3  
Page 4 of 5

GULF POWER COMPANY  
 COMPUTATION OF INTEREST EXPENSE  
 ENERGY CONSERVATION ADJUSTMENT  
 For the Period: January, 2009 Through December, 2009

Interest Provision	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	SEPTEMBER* ADJUSTMENT	OCTOBER	NOVEMBER	DECEMBER	TOTAL
1. Beginning True up Amount	2,911,666.06	2,739,736.01	2,657,376.68	2,467,427.71	2,168,467.37	1,864,741.40	1,978,298.10	1,907,244.76	1,851,422.86		1,837,650.19	1,609,338.02	1,442,189.33	
2. Ending True up before Interest	2,738,170.53	2,655,645.66	2,466,040.12	2,167,550.03	1,864,153.31	1,977,777.76	1,906,718.66	1,850,992.23	1,837,310.96		1,609,022.08	1,441,922.34	1,272,343.23	
3. Total beginning & ending	5,649,836.59	5,395,381.67	5,123,416.80	4,634,977.74	4,032,620.68	3,842,519.16	3,885,016.76	3,758,236.99	3,688,733.82		3,446,672.26	3,051,260.35	2,714,532.55	
4. Average True up Amount	2,824,918.30	2,697,690.84	2,561,708.40	2,317,488.87	2,016,310.34	1,921,259.58	1,942,508.38	1,879,118.50	1,844,366.91		1,723,336.13	1,525,630.18	1,357,266.28	
5. Interest Rate First Day Reporting Business Month	0.5400	0.7900	0.7500	0.5500	0.4000	0.3000	0.3500	0.3000	0.2500		0.2200	0.2200	0.2000	
6. Interest Rate First Day Subsequent Business Month	0.7900	0.7500	0.5500	0.4000	0.3000	0.3500	0.3000	0.2500	0.2200		0.2200	0.2000	0.2000	
7. Total of Lines 5 and 6	1.3300	1.5400	1.3000	0.9500	0.7000	0.6500	0.6500	0.5500	0.4700		0.4400	0.4200	0.4000	
8. Average Interest rate (50% of Line 7)	0.6650	0.7700	0.6500	0.4750	0.3500	0.3250	0.3250	0.2750	0.2350		0.2200	0.2100	0.2000	
9. Monthly Average Interest Rate Line 8 \ 12	0.000554	0.000642	0.000542	0.000396	0.000292	0.000271	0.000271	0.000229	0.000196		0.000183	0.000175	0.000167	
10. Interest Adjustment														
11. Interest Provision (Line 4 X 9)	1,565.48	1,731.02	1,387.59	917.34	588.09	520.34	526.10	430.63	361.19	(21.96)	315.94	266.99	226.21	8,814.96

\*An interest adjustment was made in September as a result of capitalizing the Residential Energy Survey Displays which were previously booked to O&M.

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GULF POWER COMPANY

SCHEDULE OF CAPITAL INVESTMENT, DEPRECIATION AND RETURN  
Energy Select  
For the Period: January, 2009 Through December, 2009

Line No. Description	Beginning of Period	January	February	March	April	May	June	July	August	September	October	November	December	Total
1 Investments Added to Plant In Service (Net of Retirements)		(49,967.65)	(19,179.88)	(58,640.95)	(10,641.97)	2,143.15	78,977.20	121,724.77	101,760.98	128,129.88	62,277.23	40,642.56	7,313.91	
2 Depreciable Base (Cumulative Plant Additions PM Ln 2 + CM Ln 1)	10,099,380.53	10,049,512.88	10,030,333.00	9,971,692.05	9,961,050.08	9,963,193.23	10,042,170.43	10,163,895.20	10,265,656.18	10,393,786.06	10,456,063.29	10,496,705.85	10,504,019.76	
3 Depreciation Expense (Note A) (PM Ln 2 + CM Ln 2)/2 * .0023		23,171.23	23,091.82	23,002.33	22,922.65	22,912.88	23,006.17	23,236.98	23,493.98	23,758.36	23,977.33	24,095.68	24,150.83	280,820.24
4 Retirements		(109,277.71)	(88,508.93)	(94,912.23)	(74,953.38)	(140,675.89)	(70,944.49)	(36,285.53)	(110,251.58)	(78,614.17)	(161,514.97)	(140,736.90)	(134,219.31)	
5 Cost of Removal and Salvage		66,632.90	32,403.02	33,119.45	39,140.38	84,687.37	47,017.30	0.01	70,803.48	51,416.82	107,960.93	63,713.17	88,522.30	
6 Less: Accum. Depr, COR and Sal. (PM Ln 6 + CM Ln 3 + 4 + 5)	(131,588.13)	(151,061.71)	(164,075.80)	(202,866.25)	(215,756.60)	(248,832.24)	(249,753.26)	(262,801.80)	(278,755.92)	(282,194.91)	(311,771.62)	(364,699.67)	(386,245.85)	
7 Net Plant In Service (CM Ln 2 - CM Ln 6)	10,230,968.66	10,200,574.59	10,194,408.80	10,174,558.30	10,176,806.68	10,212,025.47	10,291,923.69	10,426,697.00	10,544,412.10	10,675,980.97	10,767,834.91	10,861,405.52	10,890,265.61	
8 Net Additions/Reductions to CWIP	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	
9 CWIP Balance (PM Ln 9 + CM Ln 8)	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	
10 Inventory	2,251,305.76	2,302,640.32	2,317,292.24	2,333,677.68	2,283,423.42	2,238,737.65	2,204,126.23	2,040,640.30	1,941,104.76	1,858,996.86	1,738,088.19	1,651,859.93	1,611,710.27	
11 Net Investment (CM Ln 7 + CM Ln 9 + CM Ln 10)	12,482,274.42	12,503,214.91	12,511,701.04	12,508,235.98	12,460,230.10	12,450,763.12	12,496,049.92	12,467,337.30	12,485,516.86	12,534,977.83	12,505,923.10	12,513,265.45	12,501,975.88	
12 Average Net Investment (PM Ln 11 + CM Ln 11)/2	12,733,734.48	12,482,744.67	12,507,457.98	12,509,968.51	12,484,233.04	12,455,496.61	12,473,406.52	12,481,693.61	12,476,427.08	12,510,247.35	12,520,450.47	12,509,594.28	12,507,620.67	
13 Rate of Return / 12 (Note B)		0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	
14 Return Requirement on Average Net Investment (CM Ln 12 * CM Ln 13)		117,856.55	117,995.36	118,019.04	117,776.25	117,505.16	117,674.12	117,752.29	117,702.61	118,021.67	118,117.93	118,015.51	117,996.89	1,414,433.38
15 Property Tax		10,285.09	10,285.09	10,285.09	10,285.09	10,285.09	10,285.09	10,285.09	10,285.09	10,285.09	10,285.09	10,285.09	10,285.09	123,421.08
16 Total Depreciation, Prop Taxes & Return (CM Ln 3 + CM Ln 14 + CM Ln 15)		151,312.87	151,372.27	151,306.46	150,983.99	150,703.13	150,965.38	151,274.36	151,481.68	152,065.12	152,380.35	152,396.28	152,432.81	1,818,674.70

Notes:  
(A) Energy Select Property Additions Depreciated at 2.8% per year  
(B) Return on Average Net Investment (including income taxes) is 11.3210%

GULF POWER COMPANY  
 SCHEDULE OF CAPITAL INVESTMENT, DEPRECIATION AND RETURN  
 Flow Meter  
 For the Period: January, 2009 Through December, 2009

Line No. Description	Beginning of Period	January	February	March	April	May	June	July	August	September	October	November	December	Total
1 Investments Added to Plant in Service (Net of Retirements)														
2 Depreciable Base (Cumulative Plant Additions PM Ln 2 + CM Ln 1)	8,093.56	8,093.56	8,093.56	8,093.56	8,093.56	8,093.56	8,093.56	8,093.56	8,093.56	8,093.56	8,093.56	8,093.56	8,093.56	
3 Depreciation Expense (Note A) (PM Ln 2 + CM Ln 2)/2 * .011905		96.35	96.35	96.35	96.35	96.35	96.35	96.35	96.35	96.35	96.35	96.35	96.35	1,156.20
4 Retirements														
5 Salvage														
6 Less: Accum. Depr. COR and Sal. (PM Ln 6 + CM Ln 3 + 4 + 5)	4,624.83	4,721.18	4,817.53	4,913.88	5,010.23	5,106.58	5,202.93	5,299.28	5,395.63	5,491.98	5,588.33	5,684.68	5,781.03	
7 Net Plant in Service (CM Ln 2 - CM Ln 6)	3,468.73	3,372.38	3,276.03	3,179.68	3,083.33	2,986.98	2,890.63	2,794.28	2,697.93	2,601.58	2,505.23	2,408.88	2,312.53	
8 Net Additions/Reductions to CWIP	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	
9 CWIP Balance (PM Ln 9 + CM Ln 8)	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	
10 Inventory	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	
11 Net Investment (CM Ln 7 + CM Ln 9 + CM Ln 10)	3,468.73	3,372.38	3,276.03	3,179.68	3,083.33	2,986.98	2,890.63	2,794.28	2,697.93	2,601.58	2,505.23	2,408.88	2,312.53	
12 Average Net Investment (PM Ln 11 + CM Ln 11)/2	0.00	3,420.56	3,324.21	3,227.86	3,131.51	3,035.16	2,938.81	2,842.46	2,746.11	2,649.76	2,553.41	2,457.06	2,360.71	
13 Rate of Return / 12 (Note B)		0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	
14 Return Requirement on Average Net Investment (CM Ln 12 * CM Ln 13)		32.27	31.36	30.45	29.54	28.63	27.72	26.82	25.91	25.00	24.09	23.18	22.27	327.24
15 Property Tax		4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.77	57.46
16 Total Depreciation, Prop Taxes & Return (CM Ln 3 + CM Ln 14 + CM Ln 15)		133.41	132.50	131.59	130.68	129.77	128.86	127.96	127.05	126.14	125.23	124.32	123.39	1,540.90

Notes:  
 (A) Flow Meter is Seven year Property 14.286% per year  
 (B) Return on Average Net Investment (including income taxes) is 11.3210%

Florida Public Service Commission  
 Docket No. 100002-EG  
 GULF POWER COMPANY  
 Witness: John N. Floyd  
 Exhibit No. \_\_\_\_\_ (JNF-1)  
 Schedule CT-4  
 Page 2 of 3

GULF POWER COMPANY  
 SCHEDULE OF CAPITAL INVESTMENT, DEPRECIATION AND RETURN  
 Residential Energy Survey Displays  
 For the Period: January, 2009 Through December, 2009

Line No. Description	Beginning of Period	January	February	March	April	May	June	July	August	September	October	November	December	Total
1 Investments Added to Plant In Service (Net of Retirements)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13,814.79	(0.30)	(0.12)	
2 Depreciable Base (Cumulative Plant Additions PM Ln 2 + CM Ln 1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13,814.79	13,814.49	13,814.37	
3 Depreciation Expense (Note A) (PM Ln 2 + CM Ln 2)/2 * .011905		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
4 Retirements		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5 Salvage														
6 Less: Accum. Depr. COR and Sal. (PM Ln 6 + CM Ln 3 + 4 + 5)	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	
7 Net Plant In Service (CM Ln 2 - CM Ln 6)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13,814.79	13,814.49	13,814.37	
8 Net Additions/Reductions to CWIP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	536.32	(536.32)	0.00	0.00	
9 CWIP Balance (PM Ln 9 + CM Ln 8)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	536.32	(0.00)	(0.00)	(0.00)	
10 Inventory	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	
11 Net Investment (CM Ln 7 + CM Ln 9 + CM Ln 10)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	536.32	13,814.79	13,814.49	13,814.37	
12 Average Net Investment (PM Ln 11 + CM Ln 11)/2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	268.16	7,175.56	13,814.64	13,814.43	
13 Rate of Return / 12 (Note B)		0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	0.009434	
14 Return Requirement on Average Net Investment (CM Ln 12 * CM Ln 13)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.53	67.69	130.33	130.33	330.88
15 Property Tax		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
16 Total Depreciation, Prop Taxes & Return (CM Ln 3 + CM Ln 14 + CM Ln 15)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.53	67.69	130.33	130.33	330.88

Notes:  
 (A) Residential Energy Survey Display is Seven year Property 14.286% per year  
 (B) Return on Average Net Investment (including income taxes) is 11.3210%

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Florida Public Service Commission  
 Docket No. 100002-EG  
 GULF POWER COMPANY  
 Witness: John N. Floyd  
 Exhibit No. \_\_\_\_\_ (JNF-1)  
 Schedule CT-4  
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Florida Public Service Commission  
Docket No. 100002-EG  
Gulf Power Company  
Witness: John N. Floyd  
Exhibit No. \_\_\_\_\_ (JNF-1)  
Schedule CT-5  
Page 1 of 1

GULF POWER COMPANY

Reconciliation and Explanation of  
Differences Between Filing and FPSC Audit  
Report for Months, January, 2008 through December, 2008

(If no differences exist, please state.)

NO DIFFERENCES

Program Description and Progress

Program Title: Residential Energy Survey

Program Description: This program offers existing residential customers, and individuals and contractors building new homes, energy conservation advice that encourages the implementation of efficiency measures resulting in energy savings for the customer. Owners of existing homes may choose to have a Gulf Power representative conduct an on-site survey of their home, or they may opt to participate in either a mail-in or on-line interactive version of the survey known as the "Energy Check Up." Qualifying new home owners and contractors may request a pre-construction survey of their final construction plans. Regardless of the options chosen, these surveys provide customers with specific whole-house recommendations.

Program Accomplishments: Overall, 7,710 residential energy surveys were completed compared to 5,600 projected surveys, a difference of 2,110 surveys over projection. There were 1,000 more Walk-Through surveys, 655 more Internet/Mail-in surveys and 455 more Pre-construction surveys than projected.

Program Fiscal Expenditures: Actual expenses were \$1,310,732 with projected expenses of \$1,226,602 resulting in a variance of \$84,130 more than the projection. The additional expenses are due to more labor required for the increased number of surveys and an inaccurate re-projection of advertising expenses. The actual 2009 advertising expenses were \$8,443 less than the amount originally forecast in the September 12, 2008 projection filing. However, due to an inaccurate assumption, a lower amount was re-projected in the September 11, 2009 filing.

Program Progress Summary: Since the approval of this program, Gulf has performed 164,502 residential energy surveys. This is a result of Gulf's promotional campaign to solicit energy surveys as well as the overall rapport established with its customers as the "energy experts" in Northwest Florida.

Program Description and Progress

Program Title: Residential 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 geothermal heating and cooling systems.

Program Accomplishments: There were 72 units installed compared to 200 units projected by year end, a difference of 128 units under projection.

Program Fiscal Expenditures: Actual expenses for the period were \$182,196. Projected expenses were \$242,133 resulting in a variance of \$59,937 under the projection.

Program Progress Summary: Education and training of HVAC dealers and building contractors continue as vital components of this program. Since the inception, 2,498 geothermal systems have been installed.



Program Description and Progress

Program Title: Energy Select

Program Description: The Energy Select program is designed to increase the efficiency of energy consumption on Gulf Power's system. The program is an interactive energy management system that allows residential customers to program their central heating and cooling system, electric water heater and pool pump to automatically respond to varying prices of electricity depending upon the time of day, day of week and season. These prices are in relation to the Company's cost of producing or purchasing energy. Energy Select consists of three elements - a custom-designed programmable thermostat, a Residential Service Variable Pricing (RSVP) rate featuring four different prices for electricity and a communications gateway that facilitates two-way communication between the utility and the customer's home.

With this program, customers can save money by programming the largest portion of their energy purchases to occur in the lower price periods, while providing peak demand reduction benefits during the high and critical peak price periods.

Program Accomplishments: There was a net increase of 234 units during the reporting period compared to 100 net additions projected by year end for a difference of 134 units over the projection.

Program Fiscal Expenditures: There were actual expenses of \$6,368,177 compared to projected net expenses of \$6,922,585. The lower costs of \$554,408 is primarily due to less materials expense.

Program Progress Summary: As of December, 2009, there are 8,950 participating customers.

Program Description and Progress

Program Title: Commercial/Industrial Energy Analysis

Program Description: This program is designed to provide professional advice to our existing commercial and industrial customers on how to reduce, and make the most efficient use of their energy consumption. This program covers from 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 semi-annual and annual follow-ups with the customer to verify any conservation measures installed and to reinforce the need to continue with more conservation efforts. Customers may participate by requesting a basic Energy Analysis Audit (EAA) provided through either an on-site survey or a direct mail survey. A more comprehensive analysis can be provided by conducting a Technical Assistance Audit (TAA).

Program Accomplishments: In 2009, 588 commercial energy surveys were completed compared to 550 projected surveys, a difference of 38 surveys over projection.

Program Fiscal Expenditures: Actual expenses were \$604,901 for the period compared to projected expenses of \$674,018. The resulting variance is \$69,117 under projection.

Program Progress Summary: A total of 19,397 E.A./T.A.A.'s have been completed since the program started in 1981. These audits have ranged from the 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: GoodCents Commercial Buildings

Program Description: This program is designed to achieve energy efficient buildings by educating commercial and industrial 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 the most efficient use of all energy sources and available technologies.

Program Accomplishments: There were 90 actual buildings certified during the current period compared to 180 projected for a difference of 90 under projection.

Program Fiscal Expenditures: Actual expenses were \$553,023 for the period while projected expenses were \$632,146 resulting in a variance of \$79,123 under the projection.

Program Progress Summary: A total of 9,278 commercial/industrial buildings have qualified for the GoodCents designation since the program was developed in 1977.

Program Description and Progress

Program Title: Commercial Geothermal Heat Pump

Program Description: The objective of this program is to reduce the demand and energy requirements of new and existing commercial/industrial customers through the promotion and installation of geothermal heating and cooling systems.

Program Accomplishments: There were 14 units actually installed compared to 20 units projected by year end, a difference of 6 units under projection.

Program Fiscal Expenditures: Actual expenses were \$81,325 for the recovery period compared to projected expenses of \$138,393 resulting in a difference of \$57,068 under the projection.

Program Progress Summary: To date, 28 units have been installed under this program.

Program Description and Progress

Program Title: Energy Services

Program Description: The Energy Services program is designed to establish the capability and process to offer advanced energy services, and energy efficient end-use equipment that is customized to meet the individual needs of large customers. Potential projects are evaluated on a case by case basis and must be cost effective to qualify for incentives or rebates. The types of projects covered under this program would include demand reduction or efficiency improvement retrofits, such as lighting (fluorescent and incandescent), motor replacements, HVAC retrofit (including geothermal applications), and new electro-technologies.

Program Accomplishments: For the 2009 recovery period, at the meter reductions of 8,018,445 kWh, winter kW of 1,559 and summer kW of 1,561 were achieved. The projected results for this period were at the meter energy reductions of 1,178,470 kWh and at the meter demand reductions of 510 kW winter and 275 kW summer.

Program Fiscal Expenditures: There were actual expenditures of \$24,449, including \$24,000 of incentives, for the 2009 recovery period compared to projected expenses of \$104,971 resulting in a variance of \$80,522 under the projection.

Program Progress Summary: Total reductions at the meter of 22,310,136 kWh, winter kW of 4,685 and summer kW of 6,390 have been achieved since this program was initiated.

Program Description and Progress

Program Title: Renewable Energy

Program Description: The Renewable Energy Program is designed to encompass a variety of voluntary renewable and green energy programs under development by Gulf Power Company. The voluntary pricing options for customers include, but are not limited to, EarthCents Solar (Photovoltaic Rate Rider) and the Solar for Schools program. Additionally, this program will include expenses necessary to prepare and implement renewable energy initiatives utilizing landfill gas, wind, solar or other renewable energy sources.

Program Accomplishments:

**EarthCents Solar (Photovoltaic (PV) Optional Rate Rider):**

The PV Rate Rider is an optional rate rider in which customers may purchase photovoltaic energy in 100-watt blocks. The construction of the photovoltaic facility or the purchase of power from photovoltaic facilities will begin upon the attainment of sufficient commitments from all participants across the Southern Company electric system where the option is available and, as necessary, after obtaining PSC approval. As of December, 2009, 53 customers have signed up for 65 100-watt blocks of energy.

**Solar for Schools:** The principle objective of the Solar for Schools program is to implement solar education and demonstration projects, in conjunction with the Florida Solar Energy Center, at local educational facilities by means of voluntary contributions. The program also seeks to increase renewable energy and energy awareness among students, parents and contributors. Solar for Schools is a program that uses voluntary contributions to fund materials for energy education, permanent demonstration displays, rewards for science contests, and teacher education. Voluntary contributions are solicited from customers interested in renewable energy and/or helping to improve the quality of schools in the Gulf Power Company service area. Funds are collected through a "check-off" mechanism on the utility bill or through a direct contribution and are accumulated in an interest bearing account. When contributions reach an adequate level, they are directed to an educational facility for implementation of various solar educational programs and for the installation of solar equipment. Contributions are not used for administrative costs, program research or for promotion costs.

The Solar for Schools program has enabled Gulf Power to install a 4 kW PV solar system at each of the following institutions: the Junior Museum of Bay County in 2000, Meigs Middle School in Shalimar in 2003, West Florida High School of Advanced Technology in Pensacola in 2003, and Bay County High School in Panama City in 2004.

**Renewable Energy Initiative:** Gulf continues to evaluate and develop renewable energy sources and offerings. During 2008, Gulf added resources to further evaluate several renewable energy generation options including landfill gas, biomass, municipal solid waste, and solar PV projects. Gulf also continues to evaluate opportunities for demand-side renewable energy programs as part of our renewable initiative.

Program Fiscal Expenditures: Actual expenses for this period were \$264,411 compared to projected expenses of \$430,144 which resulted in a variance of \$165,733 under projection. Actual expenses were as follows: Solar for Schools, \$20; EarthCents Solar, \$11,678; and Renewable Energy initiatives, \$252,713.

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. 23561 for Gulf Power Company to explore and 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:

**McDonald's Geothermal Project** - This is the first full Geothermal HVAC fast food restaurant to be constructed within Gulf Power Company's service area. The objective of this project is to demonstrate the energy and electrical demand benefits of this geothermal restaurant system as compared to other like restaurants operated by the same owner in the same geographic location. Additional benefits of developing a hot water consumption profile for this restaurant will be obtained within this project. Data collection for one year began January, 2008 and a final report should be available by the end of second quarter, 2010.

**UWF BEST House** - Gulf Power has entered into a partnership, along with a number of other donors, with the University of West Florida, located in Pensacola, Florida, to help build the BEST (Build Educate Sustain Technology) House. This is a demonstration house that will be used as an educational tool and resource for Northwest Florida.

The BEST House program's intent is to provide a home featuring energy-efficient, sustainable design techniques available to the median homebuilder and buyer of today. The 3,300 square foot, three-bedroom home is a study model featuring passive solar collectors, grey-water and rainwater collection systems, advanced insulation systems, a geothermal heat pump, whole-house ventilation, energy-efficient appliances and lighting, day-lighting, and sustainable building products. The most ambitious goal, however, is to make this an *off-grid* project with photovoltaic panels and a battery array substantial enough



to supply all of the electrical power needed on site with an excess that can be sold.

Gulf Power is acting as the primary Energy Consultant to all end uses and new technologies that will continue to be donated to this project. Gulf Power will pay for the purchase, installation and monitoring of equipment that will provide data on a wide variety of energy and water end uses.

General economic conditions affecting sponsor support and permitting requirements have delayed construction of the BEST House. Construction of the garage/exposition center has been rescheduled to precede the main house to better track the national economic recovery projection. Despite the delays, all participants remain optimistic and enthusiastic about the completion and potential contributions of the BEST House.

**Electrode Boiler** - This project will measure overall energy performance and verify operation of a new 3.4mW Electrode Boiler and two new 200HP natural gas boilers which produce steam for the Escambia County Jail. The Electrode Boiler is an emerging technology that has the potential, coupled with a time varying rate such as RTP, to produce steam very efficiently.

After a number of delays since its inception in 2005, the Electrode Boiler CDD Project was installed and made ready for operation in 2007. For various reasons, including newness of the technology, relative costs of electricity and natural gas, operator proficiency, etc., the County has not yet operated the boiler for any extended period of time. A final report on this project will be submitted by the end of second quarter, 2010.

**Variable-Speed Pool Pump** - Two residential pool pumping configurations will be monitored and data gathered to determine and compare the kW and kWh consumption of the existing, conventional pumps, relative to the more technologically advanced and energy-efficient variable-speed pumping technology. This data will be gathered for both pumps under normal, but varied, operational scenarios such as long-term water filtration and short-term pool maintenance.

Monitoring of the conventional pumps began July, 2009, and monitoring of the variable-speed pumps began October, 2009. To date, monitoring results indicate significant kWh reduction potential and even larger kW reduction potential. A final report should be available by the end of first quarter, 2011.

Program Fiscal Expenditures: Actual expenses for this period were \$67,571 compared to projected expenses of \$202,629 which resulted in a difference of \$135,058 under projection. Project expenses were as follows: Electrode Boiler, \$0; McDonald's Geothermal, \$0; UWF BEST House, \$45,342; Variable Speed Pool Pump, \$22,229.

Program Description and Progress

Program Title: Solar Thermal Water Heating Pilot Program

Program Description: Approved in December 2008, Gulf Power's one-year Solar Thermal Water Heating Pilot Program was designed to gauge utility customer interest in, and acceptance of, the technology, as well as determine what economic incentives may be most effective in increasing the public's willingness to install the technology in their homes. Gulf offered a \$1,000 rebate payable to customers after a qualifying system was installed by the customer and inspected by Company personnel. The program also included a demonstration of the solar thermal water heating technology in a low-income multi-family application.

Program Accomplishments:

Program Participation: Through December 2009, 91 Gulf Power Residential customers applied for rebates for installation of qualifying Solar Thermal Water Heating Systems, and over 300 additional customers inquired about the technology but did not participate in the program. Three additional qualifying applications were processed during the first quarter of 2010 for a total of 94 participating customers. Gulf had projected a total of 75 participants would receive the program rebate by the end of the one-year pilot.

System Installation Costs: Several different system types were installed under the program by nine different contractors with system costs ranging from \$3,761 to \$8,940. The average installed system cost was \$5,830.

Monitoring and Evaluation: Through participant surveys, Gulf validated that the incentive program had a direct impact on the deployment of these systems in our area. More than 85% of participating customers would not have installed their systems without the Gulf Power incentive. However, 75% of the participating customers indicated that they would have installed their systems at a slightly lower incentive level. Gulf also conducted a focus group study of non-participating customers. This research indicated that the initial cost of installing a solar thermal system was the primary reason they chose not to install the technology.

To aid in evaluating the potential impact of solar thermal water heating systems on peak demand, Gulf installed load research meters on the homes of customers participating in the solar thermal pilot program. However, there were a very limited number of customers that installed their solar thermal systems prior to the summer peak demand period. Due to the limited number of customers and the time constraint of the pilot program, the results of the analyses were inconclusive. Gulf recommends that future research be done with end-use metering on solar thermal and standard water heating equipment, as well as whole-premise metering.

Additional data collection is ongoing and will be used along with customer billing data over time to aid in validating estimates of energy reductions associated with solar thermal water heating.

Promotion and Advertising: Several forms of media were used to promote the pilot program and raise customer awareness of Solar Water Heating technology. These media forms included internet, bill inserts, National Public Radio ads, and daily newspaper ads in publications across Gulf Power's service area. Program brochures were also developed to aid in promoting the program as well as assist customers with guidelines for successful system installations.

Low-Income Housing Project: Gulf Power proposed to demonstrate solar thermal water heating in a low-income multi-family application at an estimated cost of \$375,000. Gulf Power worked with a low-income housing development to facilitate the installation of solar water heating systems in this type of application. However, due the limited timing of the pilot program, this project could not be demonstrated as originally proposed.

Program Fiscal Expenditures: There were actual expenditures of \$141,921 for the 2009 recovery period compared to projected expenses of \$271,282 resulting in a variance of \$129,361 under the projection.

Program Description and Progress

Program Title: Energy Education Pilot Program

Program Description: The objective of the Energy Education program is to raise awareness of energy efficiency and conservation and to increase participation in conservation opportunities, including Gulf's existing and future energy efficiency and conservation programs. The Program consists of four components:

1. Consumer Awareness
2. School-Based Education
  - a. Science Teacher Training
  - b. Eighth Grade Instructional Assistance
3. Community-Based Education
4. Contractor Education

Program Accomplishments:

Consumer Awareness

The Consumer Awareness Campaign provided general energy efficiency and conservation messages and supplemented existing Gulf advertising for conservation programs by associating all programs and services with a common overarching energy conservation message in order to maintain high customer awareness of the benefits of energy efficiency efforts, and to increase personal action in regards to efficiency. Overall, traditional media - television, billboard, radio, print, and online - have been used in addition to other venues including customer home energy makeovers in partnership with local TV stations and vendors; energy tip of the day opportunities; and shopping mall energy expos to increase energy efficiency awareness.

Non-traditional consumer awareness strategy included partnerships with local ABC and NBC affiliates, National Public Radio station and National Public Broadcasting Service TV station, as well as shopping malls and community organizations. The objective of these partnerships was to supplement traditional advertising pieces by providing details about energy efficiency and conservation using Gulf Power employees and local well-known broadcast personnel in a wide range of venues. Examples include:

- Through a Gulf Power partnership with the local ABC TV affiliate and several trade allies, a homeowner who had recently participated in the Energy Survey program was selected to receive an Energy Saver Home Makeover.

Based on the recommendations of the energy survey, a number of energy efficiency measures were donated and installed including a new 15 SEER heat pump HVAC, duct work improvements, additional attic insulation, new high efficiency windows and a new water heater. The makeover was documented on-air and on-line where the projected energy savings associated with the improvements were highlighted.

- Featured guest spots (Eco-minutes, Green Tips, Money-Saver Fridays, etc.) during regular programming for about 15 weeks on topics such as proper thermostat settings, phantom energy use, energy efficiency tips for renters, insulating your home, saving energy at work, how to check your energy use. Some of these were live interviews while others were taped sessions that could be aired multiple times.
- Features during prime newscasts on energy saving topics.
- Prominent placement on local media Websites, most often associated with weather pages, for Gulf Power energy saving advice.
- Tie-in with daily weather reports.
- Online blogs with energy advice.
- Educational messages targeted to children during Saturday morning cartoon programming, including promotion of contests.
- Distribution by partners of Gulf Power energy saving information during community events, including live broadcast of tips. Events included Earth Day events, regular weekly festivals, and Homebuilder expos.
- Exhibit for a Green Energy expo at a shopping mall (averaging 25,000 consumers on a summer Saturday) during which Gulf Power employees provided energy saving advice and program information.

Unlike other advertising targeted to specific consumer groups, the Energy Education campaign needed to reach the entire customer base in a short time period. Overall, the

awareness campaign generated approximately 100,366,000 energy education advertising impressions on traditional venues such as online, radio, TV, outdoor billboards and newsprint within the Gulf Power service territory, as well as the exposure through non-traditional efforts. Traditional media placement accounted for about 70 percent of the Consumer Awareness budget, with TV placement accounting for more than two-thirds of those costs.

#### School-Based Education

The School-based Education component is a training program for middle school science teachers, as well as a resource for support materials to augment the teachers' energy-related lesson plans. Gulf partnered with the non-profit National Energy Education Development (NEED) Project to provide teacher training and student materials customized to specific school and district needs in carrying out the Florida Department of Education's Sunshine State Standards for Science.

**Classroom:** During the spring of 2009, Gulf Power employees demonstrated hands-on activities and energy concepts to more than 3,300 middle school students at 13 schools throughout Northwest Florida (about one-third of total middle schools served by Gulf Power) during energy "expos" in the spring. As a result of this program exposure, school districts have adopted the materials as part of the energy curriculum for the 2009-2010 school year in almost 50 middle schools served by Gulf Power. Gulf Power provided 116 middle school science teachers with NEED teacher and student guidebooks and activities in more than six different energy-related subjects ranging from energy sources to energy conservation and school energy management. At the same time, 123 energy conservation and 123 solar energy hands-on learning kits were provided for use with the energy curriculum. Gulf Power also has the same kits and curriculum materials available for demonstration and presentations at schools or for use by teachers or student groups such as Scout troops and 4-H clubs.

**Teacher:** During the summer of 2009, Gulf Power provided two one-day teacher workshops in conjunction with NEED instructors. Almost 50 middle school science teachers and district curriculum coordinators participated to earn continuing education credits. Teacher evaluations of the energy-related curriculum and materials were exceptionally high, and additional teacher workshops have been requested. However, the majority of teachers preferred that Gulf Power provide more classroom materials - both lesson plans and

hands-on science of energy activities - rather than training for teachers, so program funds were shifted, and teacher training was provided through Gulf Power resources in conjunction with the teachers who completed initial training courses.

Summer camp: Gulf Power partnered with universities, community colleges, public schools and workforce development agencies to offer seven intensive energy awareness camps throughout Northwest Florida during the summer of 2009. These camps ranged from five days to half-day sessions and gave in-depth, fun instruction in energy and conservation to more than 130 middle school and high school age children, including two camps for students from low-income families. Students learned about energy sources and created their own renewable energy sources, while learning to weatherize houses and create science projects about energy efficiency and conservation.

#### Community-Based Education

Gulf Power employees have increased energy awareness exposure in the communities we serve by doubling participation at events and meetings using energy efficiency and conservation educational displays and presentations. An energy conservation display booth as well as presentations and handouts were created that focused on energy use and ways to conserve energy. Examples of exposure include: Building Industry Association Home Show (3,000 attendees); Earth Day events at colleges and military bases (average 400 attendees per day); civic clubs and school presentations, among others. More than 50 Gulf Power employees participated as part of a speaker's bureau trained to share energy efficiency and conservation as well as renewable energy advice.

#### Contractor Education

Gulf Power provided two one-day workshops for 58 contractors and vendors that covered the five critical aspects of building an energy efficient home - framing, electrical/plumbing, air sealing, insulation, and HVAC. All Gulf Power Marketing representatives also completed the training. The workshops were "sold out", and course materials have been supplied to other contractors throughout the year. Despite the poor economic outlook and record low new-home construction, two builders committed to high energy efficient home construction, and are promoting Gulf Power higher efficiency standards. The first high efficiency performance certified subdivision was announced this year.



Monitoring and Evaluation

Gulf conducted an initial survey of 300 customers in April 2009 to determine a baseline of consumer awareness of energy efficiency and conservation, and followed up with two additional surveys of 300 customers, with the last one conducted in October 2009.

Gulf Power customers surveyed in each wave of the research have high awareness of the benefits of energy efficiency, including helping the environment, decreasing their utility bills and improving the comfort of their homes. However, all groups surveyed were less familiar with specific Gulf Power conservation programs and energy efficiency actions or behaviors with the exception of two programs, Energy Select and In-Home Energy Audits. While overall awareness of energy efficiency actions and programs remained low throughout the year, consumers reported increased awareness of energy-saving tips featured in Gulf Power's Consumer Awareness campaign. In fact, awareness of:

- how to reduce water heating costs tripled;
- how to reduce phantom energy use doubled;
- correct summer thermostat settings almost doubled.

Program Fiscal Expenditures: There were actual expenditures of \$977,491 for the 2009 recovery period compared to projected expenses of \$1,010,000 resulting in a difference of \$32,509 under the projection.