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September 30, 2016

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

RE: Docket No. 160002-EG

Dear Ms. Stauffer:

Attached for filing in the above-referenced docket is the amended 2015 ECCR Final True-Up testimony and related schedules of Gulf Power witness John N. Floyd. This testimony is intended to replace the 2015 ECCR Final True-Up testimony of Witness Floyd which was filed on May 2, 2016 and reflects corrections to customer participation levels in several of Gulf's Demand-Side Management Programs. These corrections do not impact the monetary amounts submitted for cost-recovery. The corrections are the result of an internal process quality review which revealed that customer participation figures for a limited number of programs were not being correctly uploaded to the Company's Energy Efficiency Reporting Tool (EERT). The following Demand-Side Management Programs were affected: Community Energy Saver, HVAC Efficiency Improvement, Residential Building Efficiency, Self-Install Energy Efficiency and Commercial HVAC Retrocommissioning Programs. Changes to Witness Floyd's May 2, 2016 testimony and Schedule CT-6 are highlighted below for ease of reference. These same changes have been incorporated in the amended testimony enclosed herein.

Testimony Changes:

1. Page 4, Line 24 – from "~~1,886~~" to "2,751"
2. Page 5, Line 5 – from "~~13,022~~" to "12,807"
3. Page 6, Line 3 – from "~~1,614~~" to "1,974"
4. Page 6, Line 13 – from "22" to "23"

Schedule CT-6 Changes:

1. Community Energy Saver Program – Page 2 of 26

- a. Program Accomplishments: During 2015, ~~1,886~~ 2,751 of Gulf's customers received the measures included in this program compared to a projection of 2,500 participants, a difference of ~~614~~ 251 ~~under~~ over the projection.
- b. Program Progress Summary: A total of ~~11,640~~ 12,505 customers have received the efficiency measures included in the Community Energy Saver program since the program's launch in 2011.

2. HVAC Efficiency Improvement Program – Page 4 of 26

- a. Program Accomplishments:

Measure	2015 Year End Projection	2015 Actual Participation	Variance
HVAC maintenance	8,206	6,707 6,713	(1,499) (1,493)
HVAC early retirement Tier One	895	1,099 1,102	204 207
HVAC early retirement Tier Two	653	770	117
HVAC early retirement Tier Three	33	39 113	6 80
HVAC upgrades Tier One	249	249	0
HVAC upgrades Tier Two	113	120 87	7 (26)
HVAC upgrades Tier Three	72	73 39	1 (33)
Duct repair	4,600	3,965 3,734	(635) (866)
ECM Fan	0	0	0

- b. Program Progress Summary:

Since its launch in 2013, the following participation has been achieved:

- HVAC maintenance – ~~32,767~~ 32,773
- HVAC early retirement - Tier One – 4,344 4,347
- HVAC early retirement - Tier Two – 2,955
- HVAC early retirement - Tier Three – ~~166~~ 240
- HVAC upgrades - Tier One – 1,058
- HVAC upgrades - Tier Two – ~~659~~ 626
- HVAC upgrades - Tier Three – ~~391~~ 357
- Duct repair – ~~20,123~~ 19,892
- ECM Fan – 6

3. Residential Building Efficiency Program – Page 6 of 26

a. Program Accomplishments:

Measure	2015 Year End Projection	2015 Actual Participation	Variance
High Performance Windows	806	858	52
Reflective Roof	228	215	(13)
ENERGY STAR Window A/C	250	235 283	(15) 33

b. Program Progress Summary:

Measure	Program to Date Actual Participation
High Performance Windows	4,448
Reflective Roof	1,088
ENERGY STAR Window A/C	746 794

4. Self-Install Energy Efficiency Program – Page 13 of 26

a. Program Accomplishments: During 2015, ~~4,614~~ 1,974 customers installed qualifying ENERGY STAR appliances. These include ~~657~~ 754 ENERGY STAR Refrigerators, ~~37~~ 44 ENERGY STAR Freezers, ~~235~~ 283 ENERGY STAR Window A/Cs, ~~685~~ 893 ENERGY STAR Clothes Washers. The projection for 2015 was 2,040 ENERGY STAR appliances resulting in a variance of ~~426~~ 66 fewer participants than the projection. This program is not continued in the 2015 DSM Plan; however, the ENERGY STAR Window A/C measure is incorporated into the new Residential Building Efficiency program.

b. Program Progress Summary: Since its launch in 2011, ~~14,120~~ 14,480 customers have installed ENERGY STAR appliances as part this program. These include ~~6,532~~ 6,629 ENERGY STAR Refrigerators, ~~462~~ 469 ENERGY STAR Freezers, ~~746~~ 794 ENERGY STAR Window A/Cs and ~~6,380~~ 6,588 ENERGY STAR Clothes Washers. Additionally, 80,846 CFLs were distributed as a part of this program.

Ms. Carlotta Stauffer, Commission Clerk
Florida Public Service Commission
September 30, 2016
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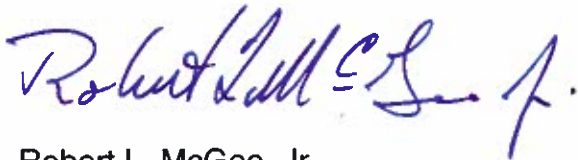
5. Commercial HVAC Retrocommissioning Program – Page 16 of 26

- a. Program Accomplishments: During 2015, ~~22~~ 23 customers participated in this program compared to a projection of 29 participants resulting in a variance of ~~7~~ 6 fewer participants than projected.
- b. Program Progress Summary: Since its launch in 2011, ~~970~~ 971 customers have participated in this program.

6. HVAC Occupancy Sensor – Page 19 of 26

- a. Program Progress Summary: Since its launch in 2011, ~~5,814~~ 5,418 HVAC occupancy sensors have been installed as part of the HVAC Occupancy Sensor program.

Sincerely,



Robert L. McGee, Jr.
Regulatory and Pricing Manager

md

cc: Florida Public Service Commission
Lee Eng Tan, Sr Attorney, Office of the General Counsel
Beggs & Lane
Jeffrey A. Stone, Esq.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**ENERGY CONSERVATION COST
RECOVERY CLAUSE**

Docket No. 160002-EG

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

**FINAL TRUE-UP FOR THE PERIOD:
JANUARY – DECEMBER 2015**

DATE OF FILING: September 30, 2016



1 GULF POWER COMPANY

2 Before the Florida Public Service Commission
3 Amended Prepared Direct Testimony and Exhibit of
4 John N. Floyd
5 Docket No. 160002-EG
6 Date of Filing: September 8, 2016

7 Q. Please state your name, business address employer and position.

8 A. My name is John N. Floyd and my business address is One Energy Place,
9 Pensacola, Florida 32520. I am employed by Gulf Power Company (Gulf
10 or the Company) as the Energy Efficiency and Renewables Manager.

11 Q. Mr. Floyd, please describe your educational background and business
12 experience.

13 A. I received a Bachelor Degree in Electrical Engineering from Auburn
14 University in 1985. After serving four years in the U.S. Air Force, I began
15 my career in the electric utility industry at Gulf Power in 1990 and have
16 held various positions with the Company in Power Generation, Metering,
17 Power Delivery and Marketing. In my present position, I am responsible
18 for the development and implementation of Gulf's customer program
19 offerings associated with the Company's Demand-Side Management
20 (DSM) Plan.

21
22 Q. Have you previously testified before this Commission in connection with
23 the Energy Conservation Cost Recovery Clause?

24 A. Yes.

25

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

2 A. The purpose of my testimony is to present the results of the approved
3 Energy Conservation Cost Recovery Clause programs and related
4 expenses for January 2015 through December 2015.

5

6 Q. Are you sponsoring any exhibits to your testimony?

7 A. Yes, I sponsor Exhibit JNF-1, Schedules CT-1 through CT-6.

8

9 Q. Have you verified that the information contained in Exhibit JNF-1 is
10 correct?

11 A. Yes, I have. This exhibit was prepared under my direction and control,
12 and the information contained therein is true and correct to the best of my
13 knowledge.

14 Counsel: We ask that Mr. Floyd's exhibit consisting of 6 Schedules,
15 CT-1 through CT-6, be marked for identification as:
16 Exhibit No. ____ (JNF-1)

17

18 Q. Please summarize for this Commission the deviations between the actual
19 expenses for this recovery period and the amount of estimated/actual
20 expenses previously filed with this Commission.

21 A. The estimated/actual true-up net expenses for the entire recovery period
22 January 2015 through December 2015, previously filed were \$17,932,429
23 while the actual expenses incurred in 2015 were \$17,961,885 resulting in
24 a variance of \$29,456 or 0.2% over the projection. See Schedule CT-2,
25 Line 10.

1 Q. Mr. Floyd, would you explain the January 2015 through December 2015
2 variance?

3 A. Yes. The variance was less than 1% and was the net result of actual
4 expenses being more than estimated for half the programs and less than
5 expected by the remaining half. Overall, these variances mean that actual
6 program expenses for the 12 month period through December 2015 were
7 \$29,456 more than the level of estimated/actual program expenses filed
8 on August 21, 2015. A more detailed description of the deviations is
9 contained in Schedule CT-3, Page 1 and Schedule CT-6.

10

11 Q. Mr. Floyd, what was Gulf's adjusted net true-up for the period January
12 2015 through December 2015?

13 A. There was a \$2,225,904 under-recovery as shown on Schedule CT-1.

14

15 Q. Please describe your program participation levels during the recovery
16 period.

17 A. A more detailed review of each of the programs is included in my
18 Schedule CT-6. The following is a synopsis of program participation
19 levels during this recovery period.

20 (A) Residential Energy Surveys - During the 2015 recovery period, the
21 Company completed 7,438 surveys compared to the projection of
22 7,510.

23 (B) Community Energy Saver – During the 2015 recovery period, the
24 Company served a total of 2,751 eligible participants compared to a
25 projection of 2,500.

- 1 (C) Landlord-Renter Custom Incentive – During the 2015 recovery
2 period, no participants enrolled in this program compared to a
3 projection of 0 participants.
- 4 (D) HVAC Efficiency – During the 2015 recovery period, there were a
5 total of 12,807 participants in this program compared to a projection
6 of 14,821.
- 7 (E) Heat Pump Water Heater – During the 2015 recovery period, a total
8 of 298 heat pump water heaters were installed compared to a
9 projection of 227.
- 10 (F) Ceiling Insulation – During the 2015 recovery period, a total of 338
11 participants installed high efficiency ceiling insulation compared to a
12 projection of 232.
- 13 (G) High Performance Window – During the 2015 recovery period, a
14 total of 762 customers installed high efficiency windows and 96
15 customers installed window film compared to projections of 737 and
16 69, respectively.
- 17 (H) Reflective Roof – During the 2015 recovery period, a total of 215
18 participants installed a qualified reflective roof compared to a
19 projection of 228.
- 20 (I) Variable Speed Pool Pump – During the 2015 recovery period, a
21 total of 223 participants installed a high-efficiency variable speed
22 pool pump compared to a projection of 174.
- 23 (J) Energy Select - During the 2015 recovery period, there was a net
24 increase of 1,866 customers with a total of 16,247 customers
25

- 1 on-line at December 31, 2015. Gulf projected 1,929 net new
2 customer additions during 2015.
- 3 (K) Self-Install Efficiency – During the 2015 recovery period, 1,974
4 customers installed qualifying ENERGY STAR appliances
5 compared to a projection of 2,040.
- 6 (L) Refrigerator Recycling – During the 2015 recovery period, no
7 participants enrolled in this program compared to a projection of 0
8 participants.
- 9 (M) Commercial/Industrial (C/I) Energy Analysis - During the 2015
10 recovery period, a total of 452 C/I Energy Analyses were completed
11 compared to a projection of 497.
- 12 (N) Commercial HVAC Retrocommissioning – During the 2015
13 recovery period, there were 23 participants in this program
14 compared to a projection of 29.
- 15 (O) Commercial Building Efficiency - During the 2015 recovery period,
16 Gulf Power customers completed the qualifying installation of 1,296
17 tons of Commercial HVAC; 37 tons of geothermal; 29,066 sq. ft. of
18 ceiling insulation; 2,503 sq. ft. of window film; 2,019 kW of
19 Commercial interior lighting; 283 lighting occupancy sensors; and
20 230,566 sq. ft. of reflective roof. No heat pump water heaters were
21 installed. Comparisons to 2015 projections can be found in
22 Schedule CT-6.
- 23 (P) HVAC Occupancy Sensor – During the 2015 recovery period, no
24 participants enrolled in this program compared to a projection of 0
25 participants.

1 (Q) High Efficiency Motors – During the 2015 recovery period, 623 HP
2 of high-efficiency motors were installed compared to a projection of
3 712 HP.

4 (R) Food Service Efficiency - During the 2015 recovery period, there
5 were 25 participants in this program compared to a projection of 29.

6 (S) Commercial/Industrial Custom Incentive – During the 2015
7 recovery period, no participants enrolled in this program compared
8 to a projection of 0 participants.

9 (T) Renewable Energy – During the 2015 recovery period, 1 Solar for
10 Schools PV, 52 Solar PV, 21 Solar Thermal Water Heater systems
11 and 13 Solar Thermal Water Heater for Low Income systems were
12 installed. Further description of the participation in the Renewable
13 Energy pilot programs can be found in Schedule CT-6.

14 (U) Conservation Demonstration and Development – Further
15 description of the 2015 Conservation Demonstration and
16 Development projects can be found in Schedule CT-6.

17

18 Q. Mr. Floyd, please summarize the transition of the programs as it relates to
19 the new 2015 DSM Plan.

20 A. Transition to the new DSM Plan began September 2015. The following
21 programs transitioned with no changes:

- 22 • Residential Energy Audit and Education
- 23 • Community Energy Saver
- 24 • Energy *Select*
- 25 • Commercial/Industrial Audit

- 1 • Commercial HVAC Retrocommissioning
- 2 • Conservation Demonstration & Development

3 The following programs were discontinued:

- 4 • Heat Pump Water Heater
- 5 • Ceiling Insulation
- 6 • Variable Speed/Flow Pool Pump
- 7 • Self-Install Energy Efficiency
- 8 • Refrigerator Recycling
- 9 • HVAC Occupancy Sensor
- 10 • High Efficiency Motor
- 11 • Food Service Efficiency
- 12 • Renewable Energy

13 The following programs are new:

- 14 • Residential Building Efficiency (measures include the old High
15 Performance Windows and Reflective Roof programs and the
16 ENERGY STAR Window A/C measure from the Self-Install Energy
17 Efficiency program)
- 18 • Residential Time of Use Pilot

19 The following programs were changed as described below:

- 20 • HVAC Efficiency Improvement – The HVAC Early Retirement Tiers 1-
21 3, Upgrade Tiers 1-3 and ECM Fan measures were discontinued. A
22 new measure, HVAC Quality Installation, was initiated. HVAC
23 Maintenance and Duct Repair measures continue unchanged.
- 24 • The Landlord/Renter Custom Incentive program was retitled the
25 Residential Custom Incentive program.

1 Detail regarding the transition to the 2015 DSM Plan can also be found in
2 Schedules CT-6, Program Descriptions and Progress Reports.

3

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

6 A. Yes.

7

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

9 A. Yes, it does.

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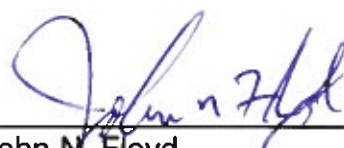
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AFFIDAVIT

STATE OF FLORIDA)
)
COUNTY OF ESCAMBIA)

Docket No. 160002-EG

Before me the undersigned authority, personally appeared John N. Floyd, who being first duly sworn, deposes, and says that he is the Energy Efficiency and Renewables Manager 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.

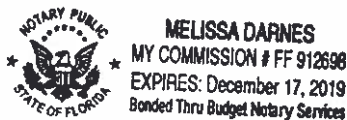


John N. Floyd
Energy Efficiency and Renewables Manager

Sworn to and subscribed before me this 29th day of September, 2016.



Notary Public, State of Florida at Large



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GULF POWER COMPANY

Reconciliation and Explanation of
Differences Between Filing and FPSC Audit
Report for Months, January, 2015 through December, 2015

The audit has not been completed as of the date of this Filing.

Program Description and Progress

Program Title: Residential Energy Audit and Education

Program Description: This program is the primary educational program to help customers improve the energy efficiency of their new or existing home through energy conservation advice and information that encourages the implementation of efficiency measures and behaviors resulting in energy and utility bill savings.

Program Accomplishments: During 2015, Gulf performed 7,438 energy audits. These included 2,632 online audits, 2,163 in home audits and 2,643 pre-construction audits.

Gulf provided professional development in energy-related science and math for 56 elementary, middle and high school teachers who reach an estimated 6,200 students. These teachers received continuing education credits as well as hands-on energy, efficiency and renewable energy classroom materials and curriculum. Another 40 teachers received the classroom materials and curriculum. Gulf provided training of instructors in partnership with the FSU Panama City STEM institute's Summer Camp program that reached approximately 300 8th – 12th grade students. Estimated reach through all of these programs is nearly 6,500 students.

Gulf coordinated monthly activities with student energy teams at two schools, measuring energy use at the school and created a plan to use energy wisely at school and home.

Gulf continued to provide energy-related onsite and material support for two hands-on interactive science museums which each average 100 attendees daily throughout the year.

Program Fiscal Expenditures: For 2015, Gulf projected \$2,170,763 of expenses compared to actual expenses of \$2,145,659 resulting in a variance of \$25,104 or 1.2% under the projection.

Program Progress Summary: Since the approval of this program, Gulf Power Company has performed 222,795 residential energy surveys.

Program Description and Progress

Program Title: Community Energy Saver Program

Program Description: This program assists low-income families with managing their energy costs. Through this program, qualifying customers receive the direct installation of conservation measures at no cost to them. The program also educates families on energy efficiency techniques and behavioral changes to help control their energy use and reduce their electricity expenses.

Program Accomplishments: During 2015, 2,751 of Gulf's customers received the measures included in this program compared to a projection of 2,500 participants, a difference of 251 over the projection.

Program Fiscal Expenditures: For 2015, Gulf projected expenses for this program of \$798,108 compared to actual expenses of \$833,815 resulting in a variance of \$35,707 or 4.5% over the projection.

Program Progress Summary: A total of 12,505 customers have received the efficiency measures included in the Community Energy Saver program since the program's launch in 2011.

Program Description and Progress

Program Title: Landlord/Renter Custom Incentive Program

Program Description: This program is designed to increase energy efficiency in the residential rental property sector. This program promotes the installation of various energy efficiency measures available through other programs, such as HVAC, insulation, windows, water heating, lighting, and appliances. Additional incentives will be included, as appropriate, to overcome the split-incentive barrier which exists in a landlord/renter situation. Moreover, this program promotes the installation of measures included in the Community Energy Saver Program by the landlord of multi-family properties. With the implementation of the 2015 DSM Plan, this program will be retitled the Residential Custom Incentive.

Program Accomplishments: During 2015, no participants enrolled in this program. While there were no participants recorded in this year, Gulf continues to work with customers in the rental property sector. These efforts have resulted in increased participation in other Conservation programs (i.e., HVAC, insulation, etc.) offered by the Company.

Program Fiscal Expenditures: During 2015, \$66,752 in expenses were projected, compared to actual expenses of \$44,072 resulting in a variance of \$22,680 or 34.0% under the projection.

Program Progress Summary: Since its launch in 2011, one customer has participated in the Landlord/Renter Custom Incentive program.

Program Description and Progress

Program Title: HVAC Efficiency Improvement Program

Program Description: This program is designed to increase energy efficiency and improve HVAC cooling system performance for new and existing homes. These efficiencies are realized through:

- HVAC maintenance
- Duct repair
- HVAC Quality Installation (New for the 2015 DSM Plan)
- HVAC early retirement (for inefficient systems) (This measure will not be continued in the 2015 DSM Plan.)
- HVAC upgrades (This measure will not be continued in the 2015 DSM Plan.)
- Retrofit of an electronically commutated motor (ECM) fan on existing HVAC systems (This measure will not be continued in the 2015 DSM Plan.)

Program Accomplishments: During 2015, compared to the projection for 2015, the following participation was achieved:

Measure	2015 Year End Projection	2015 Actual Participation	Variance
HVAC maintenance	8,206	6,713	(1,493)
HVAC early retirement Tier One	895	1,102	207
HVAC early retirement Tier Two	653	770	117
HVAC early retirement Tier Three	33	113	80
HVAC upgrades Tier One	249	249	0
HVAC upgrades Tier Two	113	87	(26)
HVAC upgrades Tier Three	72	39	(33)
Duct repair	4,600	3,734	(866)
ECM Fan	0	0	0

Program Fiscal Expenditures: – For 2015, Gulf projected \$5,288,781 in expenses compared to actual expenses of \$5,466,749 resulting in a variance of \$177,968 or 3.4% over the projection.

Program Progress Summary: Since its launch in 2013, the following participation has been achieved:

- HVAC maintenance - 32,773
- HVAC early retirement - Tier One – 4,347
- HVAC early retirement - Tier Two – 2,955
- HVAC early retirement - Tier Three – 240
- HVAC upgrades - Tier One – 1,058

- HVAC upgrades - Tier Two – 626
- HVAC upgrades - Tier Three – 357
- Duct repair - 19,892
- ECM Fan - 6

Program Description and Progress

Program Title: Residential Building Efficiency Program

Program Description: The Residential Building Efficiency Program is designed as an umbrella efficiency program for existing and new residential customers to encourage the installation of eligible equipment and materials as a means of reducing energy and demand. The goals of the program are to increase awareness and customer demand for energy saving measures; to increase availability and market penetration; and to contribute toward long-term energy savings and peak demand reductions.

- High Performance Windows
- Reflective Roof
- ENERGY STAR Window A/C

Program Accomplishments: Actual participation (through July 2015) and the 2015 year end projected participation are shown in the following table:

Measure	2015 Year End Projection	2015 Actual Participation	Variance
High Performance Windows	806	858	52
Reflective Roof	228	215	(13)
ENERGY STAR Window A/C	250	283	33

Program Fiscal Expenditures: Actual and projected expenses for 2015 are reported for the individual measures listed above in the Schedule CT-6 pages that follow.

Program Progress Summary: Since its launch in 2011, the following participation has been achieved:

Measure	Program to Date Actual Participation
High Performance Windows	4,448
Reflective Roof	1,088
ENERGY STAR Window A/C	794

Program Description and Progress

Program Title: Heat Pump Water Heater Program

Program Description: This program provides incentives directly to the customer for the installation of high-efficiency Heat Pump Water Heating equipment for domestic hot water production.

Program Accomplishments: During 2015, 298 customers participated in this program compared to a projection of 227 for a variance of 71 more participants than projected. This program is not continued in the 2015 DSM Plan.

Program Fiscal Expenditures: For the 2015 reporting period, \$139,014 in expenses were projected, compared to actual expenses of \$169,787 resulting in a variance of \$30,773, or 22.1% over the projection.

Program Progress Summary: Since its launch in 2011, 3,952 customers have participated in this program.

Program Description and Progress

Program Title: Ceiling Insulation Program

Program Description: This program provides incentives to encourage customers to install high efficiency insulation or increase insulation in existing residential single-family and multi-family homes. The objective of this program is to reduce heat loss and heat gain from both conductive and convective means through increased insulation.

Program Accomplishments: During 2015, 338 customers participated in this program. The projection for 2015 was 232 participants resulting in a variance of 106 more participants than projected. This program is not continued in the 2015 DSM Plan.

Program Fiscal Expenditures: For 2015, Gulf projected \$81,965 in expenses compared to actual expenses of \$111,172 resulting in a variance of \$29,207 or 35.6% over the projection.

Program Progress Summary: Since its launch in 2011, 2,292 customers have participated in this program.

Program Description and Progress

Program Title: High Performance Window Program

Program Description: This program provides incentives to install high-efficiency windows or window film in existing or new residential applications. The objective of the program is to reduce solar heat gain into a home which, in turn, leads to reduced HVAC loads and operating costs.

Program Accomplishments: During 2015, 762 customers installed high-efficiency windows, and 96 customers installed window film as part of this program. Projections for 2015 were 737 and 69 participants respectively, resulting in 25 more window participants and 27 more window film participants than projected. In the 2015 DSM Plan, this program will be included as a measure in the Residential Building Efficiency program.

Program Fiscal Expenditures: For 2015, Gulf projected \$205,726 in expenses compared to actual expenses of \$165,170 resulting in a variance of \$40,556, or 19.7% under the projection.

Program Progress Summary: Since its launch in 2011, 3,894 customers have installed high-efficiency windows and 554 customers have installed window film as part of this program.

Program Description and Progress

Program Title: Reflective Roof Program

Program Description: This program provides incentives to install ENERGY STAR qualified cool/reflective roofing products when constructing a new home or replacing the roof on an existing residence. The objective of this program is to significantly decrease the amount of heat that is transferred through roof assemblies and into vented attic spaces which, in turn, decreases the transfer of heat into the home's conditioned living area.

Program Accomplishments: During 2015, 215 customers participated in this program compared to the projection of 228 or 13 participants under the projection. In the 2015 DSM Plan, this program will be included as a measure in the Residential Building Efficiency program.

Program Fiscal Expenditures: For 2015, \$238,040 in expenses was projected compared to \$155,081 in actual expenses resulting in a variance of \$82,959 or 34.9% under the projection.

Program Progress Summary: Since its launch in 2011, 1,088 customers have participated in this program.

Program Description and Progress

Program Title: Variable Speed/Flow Pool Pump Program

Program Description: This program provides an incentive to encourage the installation of high-efficiency variable speed or variable flow pool pumping and control equipment in both new and existing residential applications. The objective of this program is to reduce the energy, demand, and cost associated with swimming pool operation.

Program Accomplishments: During 2015, 223 customers installed a variable speed pool pump compared to the projection of 174 or 49 over the projection. This program is not continued in the 2015 DSM Plan.

Program Fiscal Expenditures: The 2015 projection for this program was \$96,184 compared to actual expenses of \$103,474 resulting in a variance of \$7,290, or 7.6% over the projection.

Program Progress Summary: Since its launch in 2011, 6,362 customers have participated in this program.

Program Description and Progress

Program Title: Energy *Select*

Program Description: The overall program is designed to provide customers with a means of controlling their energy purchases by conveniently programming their heating and cooling systems and major appliances, such as electric water heaters and pool pumps, to respond automatically 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 2015, the Energy *Select* program experienced a net addition of 1,866 participants compared to a projection of 1,929 or 63 under the projection.

Program Fiscal Expenditures: During 2015, there were projected expenses of \$6,100,386 compared with actual expenses of \$6,162,948. This results in a deviation of \$62,562 or 1.0% over the projection.

Program Progress Summary: As of December 2015, there were 16,247 participating customers.

Program Description and Progress

Program Title: Self-Install Energy Efficiency Program

Program Description: This program promotes the purchase and installation of ENERGY STAR rated appliances for residential customers. The program focuses on increasing customer awareness of the benefits of energy efficient technologies and products through customer education and retail partnerships.

Program Accomplishments: During 2015, 1,974 customers installed qualifying ENERGY STAR appliances. These include 754 ENERGY STAR Refrigerators, 44 ENERGY STAR Freezers, 283 ENERGY STAR Window A/Cs, 893 ENERGY STAR Clothes Washers. The projection for 2015 was 2,040 ENERGY STAR appliances resulting in a variance of 66 fewer participants than the projection. This program is not continued in the 2015 DSM Plan; however, the ENERGY STAR Window A/C measure is incorporated into the new Residential Building Efficiency program.

Program Fiscal Expenditures: For 2015, program expenses were projected to be \$171,599 compared to actual expenses of \$153,083 resulting in a variance of \$18,516 or 10.8% under the projection.

Program Progress Summary: Since its launch in 2011, 14,480 customers have installed ENERGY STAR appliances as part this program. These include 6,629 ENERGY STAR Refrigerators, 469 ENERGY STAR Freezers, 794 ENERGY STAR Window A/Cs and 6,588 ENERGY STAR Clothes Washers. Additionally, 80,846 CFLs were distributed as a part of this program.

Program Description and Progress

Program Title: Refrigerator Recycling Program

Program Description: This program is intended to eliminate inefficient or extraneous refrigerators in an environmentally safe manner and produce cost-effective long-term energy and peak demand savings in the residential sector. The objectives of the program are to increase customer awareness of the economic and environmental costs associated with running inefficient, older appliances in a household and to encourage their removal by providing eligible customers with free refrigerator and freezer pick-up services, along with a cash incentive.

Program Accomplishments: During 2015, no customers participated in this program, and none were projected. Due to low participation in previous years, Gulf's vendor for the program discontinued offering pick-up services, and Gulf was unable to find an alternate provider during the program year. This program is not continued in the 2015 DSM Plan.

Program Fiscal Expenditures: During 2015, expenses were projected to be \$9,617 compared to actual expenses of \$10,604 resulting in a variance of \$987 or 10.3% over the projection.

Program Progress Summary: Since its launch in 2011, 3,764 customers have participated in this program.

Program Description and Progress

Program Title: Commercial/Industrial Audit

Program Description: This program is designed to provide professional advice to Gulf's existing commercial and industrial customers on how to reduce, and make the most efficient use of, energy. 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. 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: During 2015, the Company performed 452 commercial/industrial audits. The total projection for 2015 was 497 audits for a variance of 45 fewer participants than projected.

Program Fiscal Expenditures: For 2015, Gulf projected expenses of \$628,491 compared to actual expenses of \$632,555 for a deviation of \$4,064 or 0.6% over budget.

Program Progress Summary: Since this program was launched, 22,372 commercial/industrial audits have been performed.

Program Description and Progress

Program Title: Commercial HVAC Retrocommissioning Program

Program Description: This program offers basic retrocommissioning at a reduced cost for qualifying installations of existing commercial and industrial customers. It is designed to diagnose the performance of the HVAC cooling unit(s) operating in commercial buildings with the support of an independent computerized quality control process and to make improvements to the system to bring it to full efficiency. This program includes air cooled and water cooled equipment – identified as A/C, heat pump, direct expansion (DX) or geothermal cooling and heating.

Program Accomplishments: During 2015, 23 customers participated in this program compared to a projection of 29 participants resulting in a variance of 6 fewer participants than projected.

Program Fiscal Expenditures: For 2015, the Company projected \$30,816 in program expenses compared to actual expenses of \$30,239 resulting in a variance of \$577 or 1.9% under the projection.

Program Progress Summary: Since its launch in 2011, 971 customers have participated in this program.

Program Description and Progress

Program Title: Commercial Building Efficiency Program

Program Description: This program is designed as an umbrella efficiency program for existing commercial and industrial customers to encourage the installation of eligible high-efficiency equipment as a means of reducing energy and demand. The goals of the program are to increase awareness and customer demand for high-efficiency, energy-saving equipment; increase availability and market penetration of energy efficient equipment; and contribute toward long-term energy savings and peak demand reductions. These goals will be accomplished through commercial geothermal heat pumps, ceiling/roof insulation, and reflective roofs. The following measures are not continued in the 2015 DSM Plan; HVAC efficiency upgrades, heat pump water heater installations, window film installation, interior lighting improvements and commercial occupancy sensors.

Program Accomplishments: During 2015, compared to the 2015 projection, the measures in this program have had the following participation:

Program	Annual Projections (2015)	Actual Participation (2015)	Variance
Commercial HVAC (tons of installed HVAC)	1,049	1,296	247
Commercial Geothermal Heat Pump (tons of installed HVAC)	60	37	(23)
Heat Pump Water Heater	0	0	0
Ceiling/Roof Insulation (square feet)	14,590	29,066	14,476
Window Film (square feet)	706	2,503	1,797
Commercial Interior Lighting (kW)	1,687	2,019	332
Commercial Occupancy Sensor	0	283	283
Commercial Reflective Roof (square feet)	293,599	230,566	(63,033)

Program Fiscal Expenditures: During the reporting period, Gulf projected \$749,128 in expenses compared to actual expenses of \$841,105 for a variance of \$91,977 or 12.3% over the projection.

Program Progress Summary: Since its launch in 2011, customer participation is shown in the table below.

Program	Program to Date Participation
Commercial HVAC (tons of installed HVAC)	7,326
Commercial Geothermal Heat Pump (tons of installed HVAC)	528
Heat Pump Water Heater	3
Ceiling/Roof Insulation (square feet)	327,452
Window Film (square feet)	36,293
Commercial Interior Lighting (kW)	7,067
Commercial Occupancy Sensor	10,061
Commercial Reflective Roof (square feet)	3,005,158

Program Description and Progress

Program Title: HVAC Occupancy Sensor

Program Description: This program is intended to help manage energy consumption and reduce energy waste in hotel rooms by providing hotel owners in Gulf Power's service area the opportunity to automatically control temperature settings in hotel rooms when the rooms are unoccupied.

Program Accomplishments: During 2015, no customers participated in this program and none were projected. This program is not continued in the 2015 DSM Plan.

Program Fiscal Expenditures: During the reporting period, the Company projected expenses of \$13,766 compared to actual expenses of \$17,076 resulting in a variance of \$3,310 or 24.0% over the projection.

Program Progress Summary: Since its launch in 2011, 5,418 HVAC occupancy sensors have been installed as part of the HVAC Occupancy Sensor program.

Program Description and Progress

Program Title: High Efficiency Motor Program

Program Description: This program is designed to encourage commercial and industrial customers to install premium-efficiency motors in new or existing facilities. The objective is to reduce demand and energy associated with electric motors by encouraging the replacement of worn out, inefficient motors with high efficiency motors.

Program Accomplishments: During 2015, 623 horsepower (HP) of energy efficient motors were installed compared to a projection of 712 HP, or 89 HP below the projection. This program is not continued in the 2015 DSM Plan.

Program Fiscal Expenditures: During the reporting period, the Company projected expenses of \$14,989 compared to actual expenses of \$15,081 resulting in a variance of \$92 or 0.6% over the projection.

Program Progress Summary: Since its launch in 2011, customers have installed 5,146 HP in energy efficiency motors.

Program Description and Progress

Program Title: Food Service Efficiency Program

Program Description: This program encourages the installation of ENERGY STAR qualified or equivalent energy efficient commercial and industrial food service equipment. The objectives of the program are to reduce energy consumption and demand, as well as operating costs for the customer through the use of qualified food service equipment including convection ovens, fryers, griddles, steamers, holding cabinets and ice machines.

Program Accomplishments: During 2015, 25 participants enrolled in this program in comparison to a total projection of 29 participants. Qualified installed equipment included 12 Fryers, 1 Griddle, and 12 Ice Machines. No Convection Ovens, Steamers, or Holding Cabinets were installed. This program is not continued in the 2015 DSM Plan.

Program Fiscal Expenditures: During the reporting period, Gulf projected expenses of \$27,277 compared to actual expenses of \$27,760 resulting in a variance of \$483 or 1.8% over the projection.

Program Progress Summary: Since its launch in 2011, 100 customers have participated in the Food Service Efficiency program.

Program Description and Progress

Program Title: Commercial/Industrial Custom Incentive

Program Description: This program is designed to establish the capability and process to offer advanced energy services and energy efficient end-user equipment to Commercial/Industrial customers. These energy services include comprehensive audits, design, and construction of energy conservation projects. Specifically, projects covered under this program would be demand reduction or efficiency improvement retrofits that are beyond the scope of other programs.

Program Accomplishments: During 2015, no customers participated in this program, and none were projected.

Program Fiscal Expenditures: During the reporting period, the Company projected expenses of \$16,226 compared to actual expenses of \$13,799 resulting in a variance of \$2,427, or 15.0% under the projection.

Program Progress Summary: Since its launch in 2011, 15 customers have participated in the Commercial/Industrial Custom Incentive program resulting in at the meter kWh reductions of 7,070,333, winter kW reductions of 741 and summer kW reductions of 1,151.

Program Description and Progress

Program Title: Renewable Energy

Program Description: The Renewable Energy Program promotes the deployment of demand-side renewable technologies through a portfolio of four programs. These programs include providing capital to supplement deployment of Solar Photovoltaic (PV) systems up to 10 kW in public education facilities (Solar for Schools), offering PV rebates and solar thermal water heating (STWH) rebates to customers installing qualifying systems, and facilitating the installation of STWH systems in low-income housing units.

Program Accomplishments: This program is not continued in the 2015 DSM Plan. During 2015, the following participation occurred in this program:

- Solar for Schools – Gulf completed the installation of one 10kW solar PV system at a public education facility served by Gulf Power. Installation was completed in November 2015.
- Solar PV (residential and commercial) – 52 customers completed the installation of a qualifying solar PV system and received an incentive.
- Solar Thermal Water Heating – 21 customers completed the installation of a qualifying solar thermal water heating system and received an incentive.
- Solar Thermal Water Heating for Low Income – Gulf completed the installation of 13 qualifying solar thermal water heating systems in low-income residential housing units for 2015. The program provided the full installation cost for the installations in residences owned and managed by the Escambia County Area Housing Commission.

Program Fiscal Expenditures: During the reporting period, the Company projected expenses of \$841,658 compared to actual expenses of \$795,828 resulting in a variance of \$45,830 or 5.4% under the projection.

Program Progress Summary: Since its launch in 2011, participation is as follows:

Measure	Program Participation (Program to Date)
Solar for Schools	3 PV Systems Installed
Solar PV (Residential and Commercial)	234 PV Systems Installed
Solar Thermal Water Heater (STWH)	126 STWH Systems Installed
Solar Thermal Water Heater for Low Income	57 STWH Systems Installed

Program Description and Progress

Program Title: Residential Service Time of Use Pilot Program

Program Description: The Residential Service Time of Use (RSTOU) rate pilot will provide residential customers the opportunity to use customer-owned equipment to respond automatically and take advantage of a variable pricing structure with a critical peak credit component. In order to control program expenses and facilitate monitoring and evaluation, the pilot will be offered to a group of approximately 400 residential customers who meet the program standards. In order to further encourage customers to utilize a qualifying Wi-Fi enabled thermostat, the RSTOU pilot will offer customers a per event credit for allowing their thermostat to automatically adjust the HVAC equipment settings during a critical event period. This option puts the customer in complete control of their energy purchase without utility owned equipment. The objective of this pilot is to measure customer's response to a variable price rate with customer owned equipment. Customers will have an opportunity for additional savings by shifting energy purchases to the lower priced periods, while providing peak demand reduction during the high and critical periods.

Program Accomplishments: This pilot is a new program included in the 2015 DSM Plan and was projected to start in the fall of 2015. Due to program development delays, the program launch was shifted to February 2016. In the fall of 2015 the Company was able to secure contracts with the following vendors:

- Ecobee - thermostat provider
- New South Research- customer surveying
- EPRI (Electric Power Research Institute) - data analysis and reporting.

Program Fiscal Expenditures: During the reporting period, the Company projected expenses of \$181,250 compared to actual expenses of \$0 resulting in a variance of \$181,250 or 100.0% under the projection.

Program Progress Summary: Since its launch in 2015, 0 customers have participated in the Residential Service Time of Use Pilot 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. 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:

UWF BEST House

Gulf Power entered into a partnership, along with a number of other donors, with the University of West Florida, located in Pensacola, Florida, to help build a facility to be used as an educational tool and resource for Northwest Florida.

The project, now known as The Community Outreach, Research and Education (C.O.R.E.) Initiative, is a center to explain and demonstrate the advantages of retrofitting existing homes for energy efficiency. The C.O.R.E facility is a multipurpose laboratory; a research lab, a trade demonstration area, a construction yard, and an interactive, energy efficiency and demonstration showcase. The C.O.R.E. facility promotes energy efficient construction through the innovative display of cutting-edge technology, and through community outreach and participation. The lab is available to students, industry professionals and the general public.

The facility accommodates a research initiative in an effort to measure the efficacy of different building technologies and installations. The C.O.R.E initiative is particularly interested in the metering and measurement of sealed attic spaces, roof types, walls forms, windows, water heaters, Heating, Ventilation and Air Conditioning (HVAC) equipment, renewable energy and controls systems. The construction yard and demonstration area provides a similar opportunity for materials research and community seminars.

A final report will be issued on this project by year-end 2016. Gulf Power will remain involved with C.O.R.E. as the primary energy consultant and may initiate future CDD projects as new technologies are introduced at the facility.

Azalea Trace Project

The purpose of this project was to test the application of a Heat Pump Water Heater in an assisted living facility. The project included the installation of a commercial size Heat Pump Water Heater (4-ton heating capacity), two 119 gallon storage tanks and distribution duct work. The HPWH unit provides preheated water (140 degrees F) to the existing natural gas boilers. In turn, the boilers feed the existing 350 gallon storage tank supplying hot water to the washers.

The project has provided a database for the application of the HPWH in this type facility. No data was on record within Gulf Power for the HPWH application in an assisted living facility. The laundry operated 24-hours a day, 7-days a week. The data was used to promote energy efficient production of hot water, off-set the installation of additional air conditioning units and provide a better climatic working environment for the employees.

The values of the data recorded will be used to calculate the system amount of “free” A/C cooling, the effect on the amount of natural gas used by the boilers, the electrical usage of the HPWH and the overall energy efficiency of the system.

The data will illustrate the efficient use of a dual fuel application in a large commercial, 24-hour operating facility for the first time in Gulf’s service area.

The project was monitored for one year, and a full report will be submitted to the Commission by the end of 2016.

10th Ave North Hair Salon Heat Pump Water Heater Project (HPWH)

This project was used to determine if a residential HPWH can be used successfully in small commercial applications with high usage. As part of this project, a residential HPWH was installed and metered in a high water use commercial facility to determine the performance, reliability and economic return on investment. Gulf partnered with General Electric (GE) for this project. Two 50 gallon HPWH’s were installed with an Energy Factor of 2.4, which GE agreed to warranty as part of this project.

The project will continue to be monitored to the last quarter of 2016 and a full report will be submitted to the Commission by the end of the first quarter of 2017.

Program Fiscal Expenditures: Program expenses were forecasted at \$61,893 for the period January through December 2015 compared to actual expenses of \$66,829 for a deviation of \$4,936 or 8.0% over the projection. Project expenses were as follows: UWF BEST House, \$0; Azalea Trace Heat Pump Water Heater, \$6,424; and Hair Salon Heat Pump Water Heater Project, \$60,405.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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

Docket No.: **160002-EG**

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing was furnished by electronic mail this 30th day of September, 2016 to the following:

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