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May 27, 2016

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

Re: Docket No. 160000-OT-Undocketed Filings-2016 FEECA
Report Data Collection Request

Dear Ms. Stauffer:

Attached for electronic filing is Gulf Power Company's response to Staff's First Data Request regarding the 2016 FEECA Report.

Regards,

A handwritten signature in blue ink that reads "Robert L. McGee, Jr." The signature is fluid and cursive.

Robert L. McGee, Jr.
Regulatory and Pricing Manager

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Attachments

cc w/att.: Mr. Tripp Coston, Economic Supervisor
Division of Economics
Mr. Robert Margolis
Division of Economics
Mr. Jeffrey Stone
Beggs & Lane

1. For each DSM program offered during 2015, please provide the implementation date for each of the new/modified program approved by the Commission for the recent goal period and the termination date for each retired program approved under the prior goal period.

RESPONSE:

The implementation date for each of the new/modified DSM programs offered during 2015 was September 1, 2015. The termination date for all retired programs was August 21, 2015. The termination date marked the last day that a customer could make application for an incentive under the retiring programs.

2. Please provide a detailed description of the company's research and development programs related to customer-owned solar technologies and how these programs may impact the company's conservation efforts. Please provide any final reports or data to support your findings.

RESPONSE:

Gulf does not have any research and development programs related to customer-owned solar technologies. Gulf did complete a five year pilot of programs focused on customer-owned solar technologies as part of its 2009 Demand-Side Management Plan. These programs included providing capital to supplement deployment of solar photovoltaic (PV) systems up to 10 kW in public education facilities, offering PV rebates, solar thermal water heating (STWH) rebates, and facilitating the installation of STWH systems in low-income housing units. For Gulf, its pilot program did not include any specific research and development components. The pilot program did, however provide an opportunity for a wide range of customers to invest in solar technology.

The Company's PV pilot program provided residential and commercial customers an incentive for installation of a solar energy system on their home or business. Customers installing qualifying systems received \$2/watt with a maximum per-customer incentive of \$10,000.

Gulf's Solar for Schools pilot program provided capital funding to supplement deployment of PV systems up to 10 kW in qualifying public education facilities served by Gulf Power. This program offered the added benefit of providing resources to enable the data collected from the installed systems to be used in the schools' energy curriculum.

Gulf's Solar Thermal Water Heating (STWH) pilot program provided an incentive to residential customers to install a STWH system. Customers installing qualifying systems received a \$1,000 incentive.

The STWH for Low-Income pilot program facilitated the installation of STWH systems in qualifying low-income housing. Through the program, the STWH systems were provided at no additional expense to the customers. This program offered up to 15 system installations per year.

Based on evidentiary data presented in Docket No. 130202-EI, the Commission concluded in Order No. PSC-14-0696-FOF-EU that the pilot programs were not cost-effective and that consumers continued to install solar systems without any rebates.

The Commission also concluded that the solar rebates represented a large subsidy from the general body of ratepayers to a very small segment of each utility's customers and ordered the existing solar pilot programs to continue through December 31, 2015.

3. Please provide a detailed description of the company's research and development programs related to emergent DSM technology and how these efforts may impact the company's conservation efforts.

RESPONSE:

As approved by the Commission in Order No. 23561, Gulf Power uses its Conservation Demonstration and Development (CDD) program to explore and to pursue research, development, and demonstration projects designed to promote energy efficiency and conservation. When Gulf proposed this program for approval to the Commission, it was described as a "CDD research and development program which is intended to serve as an umbrella program for the identification, development, demonstration, and evaluation of new or emerging end-use technologies." This process gives the company the ability to thoroughly analyze the technologies and make decisions on which ones have the potential to become DSM programs. As an example, Gulf conducted a CDD project for the period October 2009 – January 2012 aimed at testing variable speed pool pump technology. This project was successful and resulted in Gulf developing a program around that technology. The pool pump program was offered by Gulf from mid-2011 until year-end 2014, and 7,639 customers received incentives through the program for installing this efficient technology at their home.

Current CDD Projects

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. Prior to this project, Gulf Power had no data on record 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.

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

This project is evaluating whether 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 is being 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.

Residential Service Time of Use Pilot Program

The Residential Service Time of Use (RSTOU) rate pilot, launched February 10, 2016, provides 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.

4. For the program *Residential Energy Audit and Education, Home Energy Reporting*, the company reported generator totals of 3,134 winter kW reduced, 3,134 summer kW reduced and 12,808,917 Annual kWh reduced. However, the company noted no participants for this program during the period. Please describe the company's rationale for these results.

RESPONSE:

The information represented in the "Annual Demand and Energy Savings" section for the *Residential Energy Audit and Education, Home Energy Reporting* program inadvertently reflects results from the previous year due to a spreadsheet formula error. The Company correctly represents no participants for 2015. The Company does not claim any energy and demand savings for 2015 as reflected on the summary pages 56 and 57.

5. For the following programs, please describe the company's assessment on why it did not achieve the projected participation levels for 2015. Also, please describe any efforts the company is implementing to increase future participation levels.
- a. Residential Energy Audit measure of the Residential Energy Audit and Education Program, page 58 of the 3/1/2016 DSM filing for 2015. In 2015, Gulf projected 8,400 more participants and achieved 2,301 participants.
 - b. Residential Community Energy Saver Program, page 59 of the 3/1/2016 DSM filing for 2015. In 2015, Gulf projected 2,500 more participants and achieved 149 participants.
 - c. Residential HVAC Quality Installation Measure of the Residential HVAC Efficiency Improvement Program, page 63 of the 3/1/2016 DSM filing for 2015. In 2015, Gulf projected 2,000 more participants and achieved 0 participants.
 - d. Residential Duct Repair measure of the Residential HVAC Efficiency Improvement Program, page 64 of the 3/1/2016 DSM filing for 2015. In 2015, Gulf projected 500 more participants and achieved 0 participants.
 - e. Energy Select Program, page 67 of the 3/1/2016 DSM filing for 2015. In 2015, Gulf projected 1,600 more participants and achieved 472 participants.
 - f. Residential Energy Star Window A/C measure of the Residential Building Efficiency Program, page 68 of the 3/1/2016 DSM filing for 2015. In 2015, Gulf projected 200 more participants and achieved 1 participant.
 - g. Commercial/Industrial Energy Audit Program, page 69 of the 3/1/2016 DSM filing for 2015. In 2015, Gulf projected 500 more participants and achieved 125 participants.
 - h. Commercial HVAC Retrocommissioning Program, page 70 of the 3/1/2016 DSM filing for 2015. In 2015, Gulf projected 250 more participants and achieved 5 participants.
 - i. Commercial Ceiling/Roof Insulation measure of the Commercial Building Efficiency Program, page 72 of the 3/1/2016 DSM filing for 2015. In 2015, Gulf projected installing an additional 225,000 square feet of insulation and installed 20,555 square feet of insulation.
 - j. Commercial Reflective Roof measure of the Commercial Building Efficiency Program, page 73 of the 3/1/2016 DSM filing for 2015. In 2015, Gulf projected installing 800,000 square feet of reflective foot and installed 59,300 square feet of reflective roof.

RESPONSE:

The actual program enrollments for 2015 are split between the 2010 DSM Plan and 2015 DSM Plan due to the mid-year transition. The correct totals for each program are shown in the table below:

Program Measures	2010 DSM Plan		2015 DSM Plan		Combined
	Annual		Annual		Annual
	Projected Participants	Actual Participants	Projected Participants	Actual Participants	Actual Participants
Residential Energy Audit	9,945	5,137	8,400	2,301	7,438
Residential Community Energy Saver	1,500	1,737	2,500	149	1,886
Residential HVAC Quality Installation	0	0	2,000	0	0
Residential Duct Repair	6,000	3,965	500	0	3,965
Energy Select	1,600	1,394	1,600	472	1,866
Residential Energy Star Window A/C	400	234	200	1	235
Commercial/Industrial Energy Audit	600	327	500	125	452
Commercial HVAC Retrocommissioning	1,200	17	250	5	22
Commercial Ceiling/Roof Insulation	134,320	8,511	225,000	20,555	29,066
Commercial Reflective Roof	500,000	171,266	800,000	59,300	230,566

The company did not achieve the expected number of participants in the Residential Energy Audit program due to less interest by customers. The company promotes the availability of this program through bill inserts, advertising, and call center contacts; however, customer participation is purely voluntary.

The company did not achieve the expected number of participants in the Community Energy Saver program due to less customer interest than expected. Gulf offers this program free to customers who reside in targeted neighborhoods meeting program eligibility requirements. Gulf and the program vendor work through local community leaders to gain support in the community for this program; however, customer participation is purely voluntary. In order to increase participation, Gulf is conducting additional customer segmentation research to identify potential new target customer neighborhoods beyond those identified by local low-income agencies.

The company did not achieve the projected participants in the Residential HVAC Quality installation program because the necessary contractor training extended the launch of this new measure into early 2016. Now launched, this new measure provides HVAC contractors another tool to encourage customer participation in ensuring newly installed HVAC systems are tuned properly to maximize energy efficiency.

The company did not achieve the projected participants in the Residential HVAC duct repair program due to less activity by participating contractors. Gulf promotes this program to contractors as another tool to encourage customer participation in ensuring their air duct system is properly sealed to achieve maximum energy efficiency.

The company did not achieve the projected participants in the Residential Energy STAR window A/C program due to less interest than anticipated. This was likely due to a lower incentive effective with the 2015 DSM plan. Gulf will continue to promote this program through trade allies, the company website, the call center, and energy audits.

The company did not achieve the expected number of participants in the Commercial/Industrial Energy Audit program due to less interest by customers. The company promotes the availability of this program through bill inserts, advertising, and call center contacts; however, customer participation is purely voluntary.

The company did not achieve the projected participants in the Commercial Ceiling insulation program due to less interest than in previous years. As with other programs in the 2015 DSM Plan, Gulf will increase outreach to ensure eligible customers are aware of this program opportunity.

The company did not achieve the projected participants in the Commercial Reflective Roof program due to less interest than in previous years. As with other programs in the 2015 DSM Plan, Gulf will increase outreach to ensure eligible customers are aware of this program opportunity.

6. Please describe the company's process for monitoring any new energy efficiency standards or Florida Building Code requirements and modifying programs to reflect these changes if necessary.

RESPONSE:

Gulf Power subscribes to and monitors International Energy Conservation Code (IECC) and Florida Building Code-related publications and newsletters. Gulf also monitors the various building science-related publications. The Company periodically partners with the leading building science organizations to provide energy-efficiency training to local trade allies most frequently impacted by building code requirements and changes. In addition, Gulf maintains on-going communications and working relationships with state and local Building Code jurisdictions. This enables the Company to remain abreast of potential building code changes and to maintain its standing as a valuable and credible energy efficiency resource. DSM programs are updated as necessary to ensure the programs remain above minimum code requirements. For example, when the federal appliance efficiency standard for HVAC systems was increased to 14 SEER, Gulf removed this measure from the HVAC efficiency program.

7. Please describe the process for ensuring low-income customers are aware of and have access to conservation programs offered by the company.

RESPONSE:

Gulf Power Company's customer service representatives provide conservation program information as appropriate when customers call or visit the Gulf Power offices. Customers may be referred to Gulf Power's web site, which contains energy conservation information, or the customers may be referred to a marketing representative for a home energy audit. During a home energy audit, customized energy conservation information is presented to customers. Marketing representatives explain behavioral and equipment changes that will save energy and money.

Beginning with the 2015 DSM Plan, Gulf is also expanding these educational efforts to the low-income community through local assistance agencies. Gulf is identifying agencies and developing "energy literacy" curriculum that can be presented to clients as they receive assistance. Gulf believes this approach will provide valuable information to help low-income customer better understand what impacts their energy consumption and ways they can save energy and money.

8. Please describe the overall advertising approach taken by the company to promote the current DSM programs to its customers.

RESPONSE:

Gulf's overall advertising approach is to create awareness of energy savings opportunities through a mixture of media including outdoor billboard, newspaper, targeted publications, and digital. The company is placing an increased focus on digital advertising due to lower cost and more intelligent targeting capabilities. The company focuses these advertising efforts on the Energy Audit program and the Energy Select program as the primary means of introducing these and other programs to customers. The Energy Audit program engages the customer in a learning process that exposes them to all of the available company-sponsored programs and other self-initiated savings opportunities.

9. Please describe the company's approach to educate customers on potential self-initiated conservation opportunities.

RESPONSE:

Gulf Power Company's approach to educating customers on potential self-initiated conservation opportunities focuses on making the information available through multiple forums and formats for customers.

Online

Gulf promotes energy conservation programs and conservation behaviors through online tools. Customers may complete an online audit and use the calculator tools to determine equipment energy requirements. Another online tool includes energy saving tips located on Gulf's web site. Information at the energy saving tips site offers equipment recommendations and suggestions for equipment usage that will conserve energy.

Printed Material

Customers receive energy conservation information in the customer newsletter, *Current Connection*. Energy conservation booklets and brochures are also available for customers in each of the offices that conduct walk-in customer transactions.

Direct Contact

Gulf employees customize recommendations when conducting in-home energy audits for customers. Specific energy conservation measures or behavioral changes are discussed during and as a result of the audit. Gulf also provides speakers at organizational and community events to discuss energy conservation topics.