State of Florida

Public Service Commission

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-M-E-M-O-R-A-N-D-U-M-

DATE: August 19, 2010

TO: Office of Commission Clerk (Cole)

FROM: Division of Regulatory Analysis (Graves, Brown, Crawford, Garl, Lewis, Ma)
Office of the General Counsel (Fleming, Sayler)

RE: Docket No. 100154-EG – Petition of approval of demand-side management plan of Gulf Power Company.

AGENDA: 08/31/10 – Regular Agenda – Proposed Agency Action – Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Administrative

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\RAD\WP\100154.RCM.08-19-10.DOC

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Case Background

The Commission, as required by the Florida Energy Efficiency and Conservation Act (FEECA), Sections 366.80 through 366.85 and 403.519, Florida Statutes (F.S.), adopted annual goals for seasonal peak demand and annual energy consumption for the FEECA Utilities. These include Florida Power & Light Company (FPL), Progress Energy Florida, Inc. (PEF), Tampa Electric Company (TECO), Gulf Power Company (Gulf), Florida Public Utilities Company (FPUC), JEA, and Orlando Utilities Commission (OUC).

Pursuant to Rule 25-17.008, Florida Administrative Code (F.A.C.), in any conservation goal setting proceeding, the Commission requires each FEECA utility to submit cost-effectiveness information based on, at a minimum, three tests: (1) the Participants Test, (2) the

Rate Impact Measure (RIM) Test, and (3) the Total Resource Cost (TRC) Test. The Participants Test measures program cost-effectiveness to the participating customer. The RIM Test measures program cost-effectiveness to the utility's overall rate payers, taking into consideration the cost of incentives paid to participating customers and lost revenues due to reduced energy sales that may result in the need for a future rate case. The TRC Test measures total net savings on a utility system-wide basis. In past goal setting proceedings, the Commission established conservation goals based on measures that pass both the Participants Test and the RIM Test.

The 2008 Legislative Session resulted in several changes to the FEECA Statute, and the Commission's goal-setting proceeding was the first implementation of these modifications. By Order No. PSC-09-0855-FOF-EG,[1] the Commission established annual numeric goals for summer peak demand, winter peak demand, and annual energy conservation for the period 2010 through 2019, based upon an unconstrained Enhanced-Total Resource Test (E-TRC) for the investor-owned utilities (IOUs). The E-TRC Test differs from the conventional TRC Test by taking into consideration the estimated additional costs imposed by the potential regulation of greenhouse gas emissions. In addition, the numeric impact of certain measures with a payback period of two years or less, were also included in the goals. Further, the IOUs subject to FEECA were authorized to spend up to 10 percent of their historic expenditures through the Energy Conservation Cost Recovery (ECCR) clause as an annual cap for pilot programs to promote solar water heating (Thermal) and solar photovoltaic (PV) installations.

On January 14, 2010, Gulf filed a Motion for Reconsideration of the Commission's decision in Docket No. 080408-EI. Order No. PSC-10-0198-FOF-EG[2] denied Gulf's reconsideration. On March 30, 2010, Gulf filed a petition requesting approval of its Demand-Side Management (DSM) Plan pursuant to Rule 25-17.0021, F.A.C.

The Southern Alliance for Clean Energy (SACE) was granted leave to intervene on August 9, 2010.[3] The Florida Solar Energy Industry Association (FlaSEIA) was granted leave to intervene on August 11, 2010.[4] Wal-Mart Stores East, LP, and Sam's East, Inc. (Walmart) was granted leave to intervene on August 18, 2010.[5]

On July 14, 2010, the SACE filed comments on the FEECA Utilities' DSM Plans. These comments were amended on August 3, 2010, to include comments regarding FPUC. No other intervenors filed comments. On July 28, and August 12, 2010, PEF and Gulf, respectively, filed responses to SACE's comments. On page 2 of the comments, SACE offers four recommendations for the Commission to consider.

[1] See Order No. PSC-09-0855-FOF-EG, issued December 30, 2009, in Docket No. 080410-EG, In re: Commission review of numeric conservation goals (Gulf Power Company).
[2] See Order No. PSC-10-0198-FOF-EG, issued March 31, 2010, in Docket No. 080410-EG, In re: Commission review of numeric conservation goals (Gulf Power Company).
[3] See Order No. PSC-10-0493-PCO-EG, issued August 9, 2010, in Docket No. 100154-EG, In re: Petition of approval of demand-side management plan of Gulf Power Company. (SACE)
[4] See Order No. PSC-10-0505-PCO-EG, issued August 11, 2010, in Docket No. 100154-EG, In re: Petition of approval of demand-side management plan of Gulf Power Company. (FlaSEIA)
[5] See Order No. PSC-10-0524-PCO-EG, issued August 18, 2010, in Docket No. 100154-EG, In re: Petition of approval of demand-side management plan of Gulf Power Company. (Walmart)

SACE's first and second recommendations are that the utilities should develop their programs further with the exception of PEF whose entire Plan should be revised within a 90-day period. As discussed in Issue 1, the five IOUs have proposed plans that do not meet the Commission's approved goals in terms of kilowatt (kW) or kilowatt-hour (kWh) savings. Consistent with Florida Statutes, staff is recommending a 30-day period to correct the deficiencies.

The third recommendation made by SACE is that the Commission should initiate a proceeding to develop an incentive mechanism for utilities that exceed their goals as well as addressing lost revenues. During the DSM goals proceeding, the Commission addressed the issue of utility incentives. Page 24 of Order No. PSC-09-0855-FOF-EG states that:

> We believe establishing incentives during this proceeding would unnecessarily increase costs to ratepayers at a time when consumers are already facing financial challenges. Increasing rates in order to provide incentives to utilities is more appropriately addressed in a future proceeding after utilities have demonstrated and we have evaluated their performance.

SACE's final recommendation is that the Commission should "evaluate alternative means of providing energy efficiency opportunities to utility customers, such as third-party administered programs, if it determines that one or more utilities are not willing or able to offer a leading program." As discussed in Issue 1, the Commission has the authority to penalize a utility if it does not meet its approved goals. However, the Commission does not have the statutory authority to require a third-party administrator to offer a particular program.

The Commission has jurisdiction over this matter pursuant to Sections 366.80 through 366.85 and 403.519, F.S.

Discussion of Issues

Issue 1: Does Gulf's proposed Demand-Side Management (DSM) Plan satisfy the company's numeric conservation goals set by the Commission in Order No. PSC-09-0855-FOF-EG?

Recommendation: No. Gulf's DSM plan fails to meet its residential and commercial/industrial goals for four years of the ten-year period. Gulf's failure to meet its annual conservation goals may result in financial penalties or other appropriate action.

Consistent with Section 366.82(7), F.S., staff recommends that Gulf file specific program modifications or additions that are needed in order for the 2010 DSM Plan to be in compliance with Order No. PSC-09-0855-FOF-EG within 30 days of the Commission's Order in this docket. (Graves, Ma)

Staff Analysis: By Order No. PSC-09-0855-FOF-EG, the Commission established annual goals for the FEECA utilities for the period 2010 through 2019. Gulf's approved goals are divided into residential and commercial/industrial, with each of these further subdivided into three categories: summer peak demand, winter peak demand, and annual energy. Gulf is responsible for meeting its required conservation goals, yet the projections provided by the Company show that they plan to fail in a number of years, as discussed below.

As detailed below in Table 1, Gulf's proposed DSM Plan is not projected to meet the Company's annual residential demand and energy goals in multiple years. Similarly, Table 2 shows that the Company's Plan is not projected to meet all of its annual commercial/industrial energy goals.

Table 1 – Comparison of Residential Goals and Projected Savings

	Summer (MW)		Winter (MW)		Annual (GWh)	
Year	Commission Approved Goal	Gulf Projected Savings	Commission Approved Goal	Gulf Projected Savings	Commission Approved Goal	Gulf Projected Savings
2010	7.5	5.0	5.9	5.9	35.0	15.4
2011	8.3	10.6	6.5	11.5	37.6	40.1
2012	9.4	13.6	7.4	14.5	40.6	54.5
2013	10.5	17.0	8.5	17.2	43.8	57.3
2014	11.7	19.4	9.5	19.0	46.8	65.1
2015	12.8	18.9	10.9	18.6	50.2	63.2
2016	14.0	17.0	12.1	17.0	53.6	58.5
2017	14.7	16.0	12.7	16.4	55.4	55.2
2018	14.9	15.2	13.3	15.9	56.2	52.7
2019	15.1	14.4	13.7	15.5	56.7	50.3
Total	118.9	147.1	100.5	151.5	475.9	512.3

Table 2 - Comparison of Commercial/Industrial Goals and Projected Savings

	Summer (MW)		Winter (MW)		Annual (GWh)	
Year	Commission Approved Goal	Gulf Projected Savings	Commission Approved Goal	Gulf Projected Savings	Commission Approved Goal	Gulf Projected Savings
2010	1.2	6.2	0.5	3.4	3.2	2.6
2011	1.6	2.1	0.6	1.1	5.6	5.6
2012	2.1	2.8	0.8	1.4	7.7	7.5
2013	2.4	3.9	0.9	1.8	9.5	10.4
2014	2.7	4.4	1.0	2.1	10.8	11.8
2015	2.9	4.9	1.0	2.1	11.7	13.0
2016	3.0	4.9	1.2	2.1	12.3	12.8
2017	3.2	4.5	1.1	2.0	12.7	11.9
2018	3.1	4.4	1.1	1.9	12.5	11.6
2019	3.1	4.0	1.1	1.8	11.9	10.7
Total	25.3	42.1	9.3	19.7	97.9	97.9

Order No. PSC-09-0855-FOF-EG set annual goals for conservation in a total of six areas. The Commission did not establish cumulative goals and the Company's DSM Plan should reflect this. Staff is aware that the values presented in this docket are projections based upon participation rates which may or may not occur. Based on these projections, it would appear that Gulf does not plan to meet each of the Commission's annual goals. However, Gulf did not request a waiver or modification of its approved goals. Depending on the actual results realized, failure to meet its goals in any year may result in financial penalties or other appropriate action by the Commission at the time of the violation. Pursuant to Section 366.82(7), F.S., the Commission could deny Gulf's DSM Plan in totality and require the Company to submit a modified Plan within 30 days. However, such action would delay the implementation of cost-effective DSM programs for many months. Therefore, as discussed in Issue 2, staff is recommending that the programs contained in Gulf's 2010 DSM Plan be approved at this time and that Gulf be required to file specific program modifications or additions that are needed in order for the 2010 DSM Plan to be in compliance with Order No. PSC-09-0855-FOF-EG within 30 days of the Commission's Order in this docket.

Conclusion

Staff believes Gulf's proposed DSM Plan does not satisfy the Company's annual numeric goals set by the Commission. The Commission did not establish cumulative goals, and the Company's DSM Plan should reflect this. It would appear that Gulf will not meet the Commission's annual goals which may result in financial penalties or other appropriate action by the Commission. Therefore, consistent with Section 366.82(7), F.S., staff recommends that Gulf file specific program modifications or additions that are needed in order for the 2010 DSM Plan to be in compliance with Order No. PSC-09-0855-FOF-EG within 30 days of the Commission's Order in this docket.

Issue 2: Are the programs contained in Gulf's proposed 2010 Demand-Side Management Plan cost-effective as this criterion is used in Commission Order No. PSC-09-0855-FOF-EG?

Recommendation: Yes. All programs in Gulf's proposed 2010 DSM Plan pass the E-TRC and Participants tests. Audits, Pilot Programs, and Research & Development programs are not included in this evaluation because they are not required to pass cost-effectiveness testing. Gulf should be required to file program standards within 30 days of the Commission's Order in this docket.

The Commission should approve cost-effective programs to allow Gulf to file for cost recovery. However, Gulf must still demonstrate, during the cost recovery proceeding, that expenditures in executing its DSM Plan were reasonable and prudent. In addition, the Commission will evaluate Gulf's compliance filing and make a final determination at that time regarding the cost-effectiveness of any modified or new programs. (Graves, Ma)

Staff Analysis: Gulf's DSM Plan includes a variety of programs, some of which are retained from previous plans without modification, others incorporated with changes to incentive levels or other design aspects, as well as new programs. In total, Gulf's Plan consists of 25 programs, which are broken down in Table 3 below. A summary of each program can be found in Attachment A.

Table 3 - Summary of Proposed DSM Programs

Program Type	Residential	Comm./Ind.	Other*	Total
Existing	1	3	0	4
Modified	1	0	0	1
New	14	6	0	20
Total	16	9	0	25
*This includes programs classified as both residential and commercial/industrial.				

In reviewing Gulf's DSM Plan, staff analyzed the assumptions made for a variety of aspects of the programs, including, but not limited to: rebate and incentive levels, participation rates, program savings, program costs, and avoided costs. Staff issued multiple data requests, and used previously submitted data from the utility's DSM programs, and information from the goal-setting docket to examine each category. Overall, staff believes the assumptions in Gulf's DSM Plan are reasonable for use in evaluating Gulf's DSM Plan.

Gulf's incentive levels were developed with assistance from the consulting firm ITRON and are based on the maximum level that the company believes is reasonable for overall program viability. ITRON provided consulting services to all FEECA utilities during the goal setting proceeding. Programs targeting low income customers and renters offer equipment such as compact fluorescent light (CFL) bulbs and low-flow shower heads at no expense to the customer. None of Gulf's proposed incentives are in excess of the cost to the customer. Given that a majority of Gulf's proposed programs are new, appropriate incentive levels are uncertain at this time. As such, Gulf has proposed to make "bottom up" adjustments when necessary.

Third party providers assisted Gulf with projections of customer participation in several of its new programs. When available, Gulf reviewed historical participation in similar programs offered by other Florida IOUs. Gulf's projections for existing programs took into account historical participation, technology limitations, and changes to incentive levels. Many of Gulf's new programs are projected to reach maximum participation in 2014.

Gulf's energy and demand savings estimates for new programs were developed using data from the ITRON study, computer-based engineering modeling software, and actual program performance data gathered by Gulf or its energy efficiency program contractors. Gulf utilized actual performance data from its own experience or from the experience of its contractors whenever this data was available. Gulf's Energy Select program is an example of a program that utilized actual performance data.

Gulf's administrative costs, which include program marketing, are based on costs projected by ITRON to achieve the E-TRC. For purposes of evaluating cost-effectiveness, Gulf allocated the total portfolio administrative costs across programs based on the amount of energy savings each program contributes to the total DSM Plan target. Gulf utilized this approach due to the lack of historical information of actual program operation costs.

Gulf's programs and measures were evaluated against a natural gas-fired combined cycle with an in-service date of 2014. Additionally, Gulf included the potential cost of greenhouse gas emissions in its cost of energy, which it calculated as $20/ton, starting in 2014, and escalating in the future. Gulf's avoided cost inputs, including fuel costs, are consistent with those used during the goal-setting process.

Cost-Effectiveness Results

By definition, a program passes a cost-effectiveness test if the benefits-to-cost ratio is greater than 1.00. All proposed programs pass both the E-TRC and Participants tests with ratios greater than 1.00. Although the Commission's Order states E-RIM test results shall be considered in evaluating programs, it does not require programs to pass the E-RIM Test. Cost-effectiveness test results for Gulf's programs are shown in Table 4 below:

Table 4 - Cost Effectiveness Test Results by Program

Program Name	E-TRC	E-RIM	Participant
Residential Low Income Portfolio			
1. Community Energy Saver	1.70	0.59	14.70
Residential Portfolio			
1. EnergySelect Lite	2.17	1.28	99.00
2. Refrigerator Recycling	2.09	0.84	23.44
3. Landlord-Renter Custom	1.67	0.59	14.46
4. High Performance Window	2.04	0.70	5.57
5. Variable Speed Pool Pump	2.72	1.00	4.49
6. Reflective Roof	2.51	0.97	4.22
7. EnergySelect	1.64	1.01	4.37
8. Self-Install Energy Efficiency	1.37	0.59	4.95
9. HVAC Efficiency	1.81	0.77	3.80
10. Home Energy Reporting	1.65	0.70	3.87
11. Ceiling Insulation	1.19	0.65	2.21
12. Heat Pump Water Heater	1.04	0.52	2.40
Business Portfolio			
1. HVAC Retrocommissioning	4.79	1.09	13.11
2. Food Services	3.86	0.93	8.46
3. High Efficiency Motors	2.73	1.00	4.75
4. HVAC Occupancy Sensor	2.25	0.77	4.32
5. Commercial Building Efficiency	2.74	1.00	3.45
6. C/I Custom Incentive	-	-	-

Several types of programs are not evaluated for cost-effectiveness. These include audits, which are mandated by the Commission to be available for ratepayers, and pilot programs, which are designed to gather additional information on conservation measures or methods. Gulf does not count any demand or energy savings associated with audits towards meeting its goals; however, it has included the demand or energy savings associated with its solar projects in its projected plan savings. Staff would note that the overall contribution of Gulf's solar pilot projects toward the Commission's goals is relatively small. Gulf's solar programs are discussed in greater detail in Issue 3.

Program Standards

Most programs have an administrative component that describes the eligibility requirements, billing practices, etc. Historically, this information is provided to staff, for administrative approval, after a program has been approved by the Commission. Therefore, staff recommends that Gulf file its program standards for all its programs, including any modified or new programs within 30 days of the Commission's Order in this docket. If final incentive levels are estimated in the program standards, these will be brought back to the Commission for approval.

Conclusion

All programs in Gulf's proposed DSM Plan pass the E-TRC and Participants tests. Audits, Pilot Programs, and Research & Development programs are not included in this evaluation because they are not required to pass cost-effectiveness testing. The Commission should approve cost-effective programs to allow Gulf to file for cost recovery. However, Gulf must still demonstrate, during the cost recovery proceeding, that expenditures in executing its DSM Plan were reasonable and prudent. In addition, the Commission will evaluate Gulf's compliance filing and make a final determination at that time regarding the cost-effectiveness of any modified or new programs. Gulf should be required to file program standards within 30 days of the Commission's Order in this docket.

Issue 3: Does Gulf's proposed Demand-Side Management Plan include pilot programs that encourage the development of solar water heating and solar PV technologies consistent with Commission Order No. PSC-09-0855-FOF-EG?

Recommendation: Yes. The cost of the proposed pilot programs is within the annual expenditure cap of $900,338 as specified in Order No. PSC-09-0855-FOF-EG. However, the allocation of funds to: (1) solar thermal vs. solar PV, (2) private customers vs. public institutions, and (3) low-income residential varies widely among the investor-owned utilities. If the Commission desires to have more uniformity among the IOUs' programs, then the Commission should initiate public workshops to explore that issue further. (Graves, Ma)

Staff Analysis: Commission Order No. PSC-09-0855-FOF-EG directed the IOUs to file pilot programs focused on encouraging solar water heating and solar PV technologies subject to an expenditure cap of 10 percent of the average annual recovery through the ECCR clause in the previous five years. The Commission-approved annual expense cap for Gulf is $900,338. The projected annual expenditures for Gulf's pilot programs do not exceed the approved annual expense cap as shown in table 5 below.

Table 5 - Solar Pilot Program Costs

Program Name	Expenditures ($)	Percent of Funds (%)
Solar Thermal Water Heating for Low-Income	$75,000	8%
Solar Thermal Water Heating Rebate	$100,000	11%
Solar for Schools	$140,000	16%
Solar PV Rebate	$435,000	48%
Administrative Costs	$150,338	17%
Total	$900,338	100%

As a pilot program, the utility should collect information relating to customer acceptance rates, energy production, and other data to refine potential future program offerings for solar renewable technologies. Gulf's demand-side renewable energy portfolio is comprised of the following pilot programs:

Solar Thermal Water Heating for Low-Income – Under this program, Gulf will facilitate the installation of solar thermal water heating systems in qualifying low-income housing. Gulf anticipates funding up to 15 low-income installations per year.

Solar Thermal Water Heating – This program will be a continuation of Gulf's Solar Thermal Water Heating Pilot program approved by the Commission in December 2008. Assuming full enrollment at an incentive level of $1,000 per installation, this funding will facilitate installation of 100 solar thermal water heating systems across Gulf's service area annually.

Solar for Schools – Gulf's Solar for Schools program will provide capital funding to supplement deployment of PV systems up to 10 kW in qualifying public education facilities served by Gulf. Gulf's program will also offer educational benefits by providing resources to enable the data collected from the installed systems to be used in the schools' energy curriculum. Gulf proposes to provide the capital for the installation of all the PV system equipment needed to support at least one school in each county that has a qualifying school served by Gulf.

Solar PV – Gulf's Solar PV Program will provide Gulf's residential and commercial customers an incentive to encourage the installation of a solar energy system on their home or business. Assuming full enrollment at an incentive level of $2/Watt of installed capacity, this funding will facilitate approximately 220 kW of small PV installations across Gulf's service area annually.

Allocation of Funds

Because the costs of these pilot programs are shared by all customers, staff looked at whether or not the programs offered opportunities for participation by all customer classes. Gulf offers programs for residential, low-income, commercial, and public facilities. The allocation of funds to each of the programs is listed in Table 5 above. Staff also looked at the allocation of funds between solar PV and solar water heating programs. As shown in Table 6, approximately 64 percent of the funding goes towards solar PV technology and 19 percent towards solar thermal installations.

Comparison With Other Utilities

Commission Order No. PSC-09-0855-FOF-EG provided no guidance on how the annual expense cap was to be allocated. While each utility has complied with Order No PSC-09-0855-FOF-EG, the renewable pilot programs of each of the IOUs varies in the weight it provides to the two major types of solar renewable resources, photovoltaic (PV) and thermal water heating, as outlined in the Table 6 below. However, all IOUs generally tend to allocate a greater percentage of funding to PV applications.

Table 6 - Percentage of Funds Allocated by Technology Type[6]

Company	FPL	PEF	TECO	GULF	FPUC
PV	41.0%	67.3%	86.7%	63.9%	Not Available
Thermal	37.6%	20.9%	13.3%	19.4%	
The percentages above do not sum to 100% as administrative, education, and R&D costs are excluded.					

[6] Refer to Docket No. 100154-EG – In re: Petition of approval of demand-side management plan of Gulf Power Company. Docket No. 100155-EG – In re: Petition of approval of demand-side management plan of Florida Power & Light Company. Docket No. 100158-EG – In re: Petition of approval of demand-side management plan of Florida Public Utilities Company. Docket No. 100159-EG – In re: Petition of approval of demand-side management plan of Tampa Electric Company. Docket No. 100160-EG – In re: Petition of approval of demand-side management plan of Progress Energy Florida, Inc.

The distribution of funds between solar installations intended for public facilities, such as schools, and privately owned facilities, including residential housing and commercial properties, is another area of variation among the utilities. Table 7 below, illustrates these differences, which overall favor private installations.

Table 7 - Percentage of Funds Allocated by Ownership Type

<table>
<tr><th>Company</th><th>FPL</th><th>PEF</th><th>TECO</th><th>GULF</th><th>FPUC</th></tr>
<tr><td>Public</td><td>7.2%</td><td>31.7%</td><td>10.4%</td><td>15.5%</td><td rowspan="2">Not Available</td></tr>
<tr><td>Private</td><td>68.9%</td><td>56.5%</td><td>89.6%</td><td>67.8%</td></tr>
<tr><td colspan="6">The percentages above do not sum to 100% due to administrative and education costs being excluded.</td></tr>
</table>

The variations between utilities represent different service territories and program designs. If the Commission desires increased uniformity in the values of the pilot programs between utilities, it could initiate a workshop or other proceeding to determine the appropriate split between these technological and customer categories.

Conclusion

Gulf's proposed DSM Plan includes pilot programs to encourage the development of solar water heating and solar PV technologies. The cost of the proposed pilot programs is within the annual expenditure cap specified by Commission Order No. PSC-09-0855-FOF-EG. Staff recommends that the pilot programs included in Gulf's proposed DSM Plan be approved. However, the allocation of funds to: (1) solar thermal vs. solar PV, (2) private customers vs. public institutions, and (3) low-income residential varies widely among the investor-owned utilities. If the Commission desires to have more uniformity among the IOUs' programs, then the Commission should initiate public workshops to explore that issue further.

Issue 4: Do any of the programs in Gulf's proposed Demand-Side Management Plan have an undue impact on the costs passed on to customers?

Recommendation: No. The proposed programs costs are not undue because the increase in program costs correlates with the increase in goals. The Commission should evaluate the Company's compliance filing and make a final determination in the ECCR clause proceedings regarding the appropriateness of incentive levels. (Graves, Ma)

Staff Analysis: By Order No. PSC-09-0855-FOF-EG, the Commission approved new aggressive DSM goals. The Commission approved DSM goals are 1025 percent higher than Gulf's existing goals for annual energy savings. Table 8 below summarizes a comparison of Gulf's DSM goals.

Table 8 - Comparison of 2004 and 2009 Goals

2005-2014 Goals			2010-2019 Goals			% Change		
Summer (MW)	Winter (MW)	Energy (GWH)	Summer (MW)	Winter (MW)	Energy (GWH)	Summer (MW)	Winter (MW)	Energy (GWH)
85.1	82.0	51.0	144.2	109.8	573.8	69%	34%	1025%

When setting conservation goals there are two basic components to a rate impact: the ECCR clause and base rates. The costs to implement a DSM program consist of administrative, equipment, and incentive payments to the participants. These costs are recovered by the utility through the ECCR clause. When new DSM programs are implemented or incentive payments to participants are increased, the cost of implementing the program may directly lead to an increase in rates as these costs are recovered.

In order to satisfy the aggressive numeric goals established by the Commission, Gulf has increased the scope and focus of its 2010 DSM Plan. As discussed in Issue 2, Gulf's proposed plan contains 20 new programs. Gulf estimates the cost to deploy the proposed DSM Plan to be \$547 million (nominal) over the ten-year period 2010-2019. For a residential customer using 1,200 kWh, the impact to the ECCR clause is projected to increase from the current level of \$1.25/mo. to \$2.76/mo., or a 113 percent increase by 2010. By 2014 the ECCR clause is projected to increase by nearly 400 percent. Table 9 below summarizes the projected rate impact of Gulf's proposed DSM Plan.

Table 9 - Estimated Rate Impact

Year		ECCR Revenue Requirement	Rate Impact ($/Mo.)	% Increase
Current		$11,525,684	$1.30	-
Projected	2010	$23,620,581	$2.76	113%
	2014	$61,436,422	$6.38	392%
	2019	$57,903,385	$5.42	318%
Current Rates refer to those established in Docket 090002				
Rate impact assumes a residential customer with 1,200 kWh/Mo. usage				

Staff ranked Gulf's programs based upon their contribution to the ECCR rate impact and has identified the top five programs that account for the greatest percentage of rate impact in Table 10 below. Some of these programs also contribute significantly to the demand and energy reductions necessary to satisfy the Commission's numeric conservation goals.

Table 10: Programs Accounting for Greatest Percent of ECCR

Program Name	% of ECCR Total	% of Goals		
		Summer	Winter	Energy
HVAC Efficiency	49.0%	61.3%	70.0%	57.4%
Energy Select	20.9%	15.8%	26.3%	1.4%
Self-Install Energy Efficiency	6.6%	3.9	4.6%	8.3%
Heat Pump Water Heater	3.8%	0.9%	4.4%	2.6%
Commercial Building Efficiency	3.3%	8.5%	4.5%	5.9%
Total	83.5	90.4%	109.8%	75.6

If the Commission desires to reduce the rate impact of Gulf's DSM Plan, these five programs represent the largest contributors to the ECCR clause. The increase in monthly rates required by Gulf's DSM Plan is compounded by the current economic situation, in which an increase in the cost of electricity is undesirable. Staff would note that if a program is removed to reduce the rate impact, the Company's goals should be modified accordingly.

As discussed in Issue 1, staff recommends that Gulf file specific program modifications or additions that are needed in order for the 2010 DSM Plan to be in compliance with Order No. PSC-09-0855-FOF-EG within 30 days of the Commission's Order in this docket. The Commission will have an opportunity to review these updated values upon receipt of the filing, and can make a determination on whether the programs have an undue rate impact at that time.

Base Rates

While not immediately applied to customer's bills, energy saving DSM programs can also have an impact on a utility's base rates. When revenues go down because fewer kWh were consumed, the utility may request a rate increase to maintain a reasonable Return on Equity (ROE). Based on Gulf's current projections, the Company's DSM plan would reduce earnings by more than 100 basis points by 2014. Other factors also impact interact with a company's earnings, and may either delay or accelerate a base rate proceeding.

Gulf's DSM Plan does include a variety of programs that would allow participation by a wide spectrum of customer groups, including low-income, residential, and commercial customers. While rates may increase due to additional DSM programs, customers should be able to reduce or eliminate the potential rate impact of Gulf's DSM Plan by participating in a DSM program. However, because the goals are based on the E-TRC Test, which does not consider costs associated with utility incentives, those who do not or cannot participate in an incentive program will not see their monthly utility bill go down unless they directly decrease their consumption of electricity. If that is not possible, non-participants could actually see an increase in the monthly utility bill.

Conclusion

Gulf's proposed Plan would increase ECCR rates for the average customer by approximately 392 percent, or up to $6.38, by 2014. However, if successful, Gulf's Plan would increase annual energy savings by more than 1000 percent. Although the rate impact of Gulf's proposed Plan is significant staff believes that the rate impact is consistent with the Commissions increased goals.

Issue 5: Should this docket be closed?

Recommendation: No. This docket should remain open in order for Gulf to refile its demand-side management plan within 30 days from the date of this Order. In addition, if the Commission approves any programs, the programs should become effective on the date of the Consummating Order. If a protest is filed within 21 days of the issuance of the Order, the programs should not be implemented until after the resolution of the protest. (Fleming, Sayler)

Staff Analysis: This docket should remain open in order for Gulf to refile its demand-side management plan within 30 days from the date of this Order. In addition, if the Commission approves any programs, the programs should become effective on the date of the Consummating Order. If a protest is filed within 21 days of the issuance of the Order, the programs should not be implemented until after the resolution of the protest.

RESIDENTIAL DEMAND-SIDE MANAGEMENT PROGRAMS:

1. Residential Energy Audit and Education

The Residential Energy Audit and Education 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. This program is also designed to increase the awareness of energy savings opportunities among Gulf's customers.

2. Community Energy Saver Program

The Community Energy Saver Program is designed to assist low-income families. The Community Energy Saver Program will implement a comprehensive package of electric conservation measures at no cost to the customer. In addition to direct installation of the conservation measures, the program will educate families on energy efficiency techniques and behavioral changes to help customers control their energy use and reduce their utility operating costs.

- The incentive cost per household is expected to average $57.50

3. Landlord / Renter Custom Incentive Program

The Landlord/Renter Custom Incentive Program is a program designed to increase energy efficiency in the residential rental property sector. This program will promote the installation of various energy efficiency measures available through other programs including HVAC, insulation, windows, water heating, lighting, appliances, etc. Depending on the individual circumstances of the rental property, additional incentives may be necessary to overcome the split-incentive barrier. This program will also promote the installation of low cost measures associated with the Community Energy Saver Program by the landlord of multi-family properties. The maximum total incentive offered will be limited to an amount which would produce a customer payback of no less than one year.

4. HVAC Efficiency Improvement Program

The Heating, Ventilation and Air Conditioning (HVAC) Efficiency Improvement program is designed to increase energy efficiency and improve HVAC cooling system performance for both new and existing single-family, multi-family and permanently anchored manufactured homes. Since as much as half of the energy used in a home goes to cooling and heating, customers can save energy and money by installing an efficient system. A total of nine measures fall under the HVAC Efficiency Program. The maximum incentives for each measure are identified below.

- HVAC Maintenance - $160
- HVAC Retirement Tier 1 - $1,025
- HVAC Retirement Tier 2 - $1,400

- HVAC Retirement Tier 3 - $1,500
- HVAC Upgrade Tier 1 - $300
- HVAC Upgrade Tier 2 - $1,050
- HVAC Upgrade Tier 3 - $1,500
- Duct Repair - $300
- ECM Fan - $200

5. Heat Pump Water Heater Program

The Heat Pump Water Heater (HPWH) Program will to provide residential customers with an incentive to encourage the installation of high-efficiency Heat Pump Water Heating equipment for domestic hot water production. The objective of this program is to encourage customers to replace existing older or malfunctioning water heaters with the most efficient water heating equipment available in order to reduce energy use associated with domestic water heating. In addition, it is the intent of this program to influence the initial water heating purchase decisions of customers who are building or considering the construction of a new home. The maximum incentive per participant is $1,000.

6. Ceiling Insulation Program

The Ceiling Insulation Program offers an incentive designed to encourage customers to install high efficiency insulation or increase insulation in existing residential single-family and multifamily homes. The objective of the program is to reduce heat loss and heat gain from both conductive and convective means by increased insulation. The maximum incentive per participant is $300.

7. High Performance Window Program

The High Performance Window Program will provide residential customers with an incentive to install high-efficiency windows or window films 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. Two measures fall under the HVAC Efficiency Program. The maximum incentive per participant is $1.50/sqft for windows or film.

8. Reflective Roof

The Reflective Roof program will provide Gulf's residential customers with an incentive 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. The maximum incentive per participant is $400.

9. Variable Speed/Flow Pool Pump Program

The Variable Speed/Flow Pool Pump Program will provide 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 maximum incentive per participant is $900.

10. EnergySelect

The EnergySelect Program is designed to increase the efficiency of energy consumption on Gulf'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, if they have one, 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. EnergySelect 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.

11. EnergySelect LITE

The EnergySelect LITE program will be a separate and complementary program offering to the EnergySelect program. EnergySelect LITE is designed to provide expanded price responsive load management program participation from residential customers who do not meet the participation standards for EnergySelect. The EnergySelect LITE program does not require land-line telephone service and will be available to multi-family customers. The program is an interactive energy management system which allows residential customers to program their central heating and cooling system to automatically respond to varying prices of electricity depending upon the time of day, day of week and season, in relation to the Company's cost of producing or purchasing energy.

12. Self-Install Energy Efficiency Program

The Self-Install Energy Efficiency Program promotes the purchase and installation of ENERGY STAR rated appliances, lighting, and other self-installed energy saving measures for residential customers. The program focuses on increasing customer awareness of the benefits of energy efficient technologies and products through customer education, retail partnerships, promotional distribution of compact fluorescent light bulbs (CFLs), on-line store, energy audits, and seasonal promotional campaigns. The maximum incentives for each measure are identified below.

- Refrigerator - $50
- Freezer - $25
- Window A/C - $150
- Clothes Washer - $75

- CFL – 100% of Cost

13. Refrigerator Recycling Program

The Residential Refrigerator Recycling 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 objective of the program is to increase customer awareness of the economic and environmental costs associated with running inefficient, older appliances in a household, and to provide eligible customers with free refrigerator and freezer pick-up services in addition to a cash incentive. The maximum incentive per participant is $35.

COMMERCIAL/INDUSTRIAL CONSERVATION PROGRAMS:

14. Commercial/Industrial Audit

Gulf has developed an audit program, Commercial/Industrial Energy Analysis Program (CEAP). CEAP is an interactive program that provides assistance to C/I customers in identifying energy conservation opportunities. This program allows GULF energy specialists to introduce customers personally to conservation measures. A basic Energy Analysis Audit is provided through either an on-site surveyor an on-line analysis. Additionally, a more comprehensive analysis can be provided by conducting a Technical Assistance Audit.

15. Commercial HVAC Retrocommissioning Program

The Commercial HVAC Retrocommissioning 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. Based on the results, the best course of action to bring the cooling system to its full efficiency will be attempted. The maximum incentive per participant is $200.

16. Commercial Building Efficiency Program

The Commercial Building Efficiency 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 goal of the program is 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. The maximum incentives for each measure are identified below.

- HVAC Upgrade – Air Source A/C or Heat Pump - $225/ton
- HVAC Upgrade – Geothermal - $500/ton

- Heat Pump Water Heater - $7,500/5 ton
- Insulation – ceiling/roof - $0.15/sqft
- Window Film - $2.00/sqft
- Lighting: T-5, T-8 Retrofit; Hard-wired CFL - $150/kw
- Lighting: LED Exit Signs, Display Case - $300/kw
- Lighting: Occupancy Sensor - $25/unit
- Reflective Roof - $0.90/sqft

17. Occupancy Sensor HVAC Control

The Occupancy Sensor HVAC Control Program is intended to help manage energy consumption and reduce energy waste in hotel rooms. The program provides hotel owners served by Gulf an opportunity to automatically control temperature settings in hotel rooms when the rooms are unoccupied. The maximum incentive per participant is $75 per sensor.

18. High Efficiency Motor Program

The High Efficiency Motor Program is designed to encourage commercial and industrial customers to install premium-efficiency motors in new or existing facilities. The objective of the program is to reduce demand and energy associated with electric motors by encouraging customers to replace worn out, inefficient motors with high efficiency motors that qualify under the Program Standards. The maximum incentives for each measure are identified below.

- Energy Efficiency Motor 1-5 HP - $41.50 per HP
- Energy Efficiency Motor 6-50 HP - $13.00 per HP
- Energy Efficiency Motor 51+ HP - $5.00 per HP

19. Food Service Efficiency Program

The Food Service Efficiency Program encourages the installation of ENERGY STAR qualified or equivalent energy efficient commercial and industrial food service equipment. The objective of the program is to reduce energy consumption and demand as well as operating costs for the customer through the use of qualified food service equipment. The maximum incentives for each measure are identified below.

- Convection Oven - $500
- Fryer - $400

- Griddle - $575
- Steamer - $1,100
- Holding Cabinet - $350
- Ice Machine - $100

20. Commercial/Industrial Custom Incentive

The Commercial/Industrial Custom Incentive program is designed to establish the capability and process to offer advanced energy services and energy efficient end-use equipment to Commercial/Industrial customers. These energy services include comprehensive audits, design, and construction of energy conservation projects. Specifically, the types of projects covered under this program would be demand reduction or efficiency improvement retrofits that are beyond the scope of other programs included in this Plan. Examples of custom projects may include, but not be limited to, installation of Variable Frequency Drive Controls, Energy Management Systems, chiller efficiency upgrades, desiccant and mechanical dehumidification systems, and more complex building retrocommissioning.

21. Real Time Pricing Program

Real Time Pricing (RTP) is a rate schedule that provides hourly prices of electricity on a day-ahead basis and is available to large Commercial and Industrial customers of Gulf Company. The objective of this program is to encourage customers to reduce demand on Gulf's system during peak times when the marginal cost of generating or purchasing electricity is at its highest. This rate schedule was approved by the FPSC in 1999 and has been utilized in the Company's DSM Plan as a program to achieve peak demand reductions in the Commercial/Industrial customer segments.

RENEWABLE PROGRAMS:

22. Solar for Schools

Gulf's Solar for Schools program will provide capital funding to supplement deployment of PV systems up to 10 kW in qualifying public education facilities served by Gulf.

23. *Solar Thermal Water Heating*

Gulf's Solar Thermal Water Heating Program will provide Gulf residential customers up to a $1,000 incentive to install certified STWH systems. The STWH systems to be installed will offer customers an opportunity to reduce their hot water energy needs otherwise served by natural gas or electric resistance heating. The systems operate in conjunction with a back-up natural gas or electric resistance source of hot water to ensure an uninterrupted supply of hot water to the customer.

24. Solar PV

Gulf's Solar PV Program will provide Gulf residential and commercial customers an incentive to encourage the installation of a solar energy system on their home or business. The incentive value will be up to $2/watt with a maximum incentive per customer of $10,000. Qualifying systems will be designed to offset part or all of a customer's energy needs and will help customers save money on their energy bills.

25. Solar Thermal Water Heating for Low-Income Housing

Under this program, Gulf will facilitate the installation of STWH systems in qualifying low-income housing. Gulf anticipates funding up to fifteen low-income installations per year. Specific eligibility requirements for the program will be provided in the Program Participation Standards.