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COMMISSION
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December 7, 2010

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

Dear Ms. Cole:

Re: Docket No. 100154-EG

Enclosed are the original and five copies of Gulf Power Company's responses to Staff's Fourth Data Request, mailed by FedEx in the above-referenced docket.

Sincerely,

Susan D. Ritenour (du)

vm

Enclosures

cc: Beggs & Lane
Jeffrey A. Stone, Esq.
George Cavros, Esq.
Suzanne Brownless, PA
Katherine E. Fleming, Esq.
Rick Chamberlain
Jessica A. Cano
John T. Burnett
James D. Beasley

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1. Please provide a list of all measures contemplated in Itron's Achievable potential study that passed both the RIM and TRC test that are not part of Gulf's revised DSM Plan.
 - a. Please explain why Gulf excluded these measures from its revised plan.

ANSWER:

Gulf excluded the measures listed below that passed the enhanced Rate Impact Measure (E-RIM) and enhanced Total Resource Cost (E-TRC) tests from the revised DSM Plan because of customer applicability, acceptability and program design considerations. For example, the Residential two-speed pool pump was excluded because Gulf recognized greater potential success in offering its competing measure, variable speed pool pump, as the most applicable measure in this category. Also, many of the Commercial and Industrial measures have relatively low potential and do not justify dedicated programs. This is one reason for the Commercial/Industrial Custom Incentive Program which allows Gulf to offer these measures on a case by case basis subject to the cost effectiveness criteria of the program.

Ultimately, the measures incorporated in Gulf's DSM Plan were chosen because of Gulf's belief that those measures best enable the Company to achieve its Commission-approved goals while at the same time offering a broad array of energy efficiency, demand response and renewable options to our customers.

Residential

Default Window With Sunscreen	Two Speed Pool Pump (1.5 hp)
High Eff. One Speed Pool Pump (1.5 hp)	

Commercial

Aerosole Duct Sealing	High Efficiency Chiller Motors
Air Handler Optimization	High Efficiency Water Heater (electric)
Anti-sweat (humidistat) controls	High Pressure Sodium 250W Lamp
Centrifugal Chiller, 0.51 kW/ton, 500 tons	High R-Value Glass Doors
CFL Screw-in 18W	High-efficiency fan motors
Chiller Tune Up/Diagnostics	Hybrid Dessicant-DX System (Trane CDQ)
Compressor VSD retrofit	Lighting Control Tuneup
Continuous Dimming	Monitor Power Management Enabling
Copier Power Management Enabling	Multiplex Compressor System

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Demand controlled circulating systems	Night covers for display cases
Demand Defrost Electric	Optimize Controls
Demand Hot Gas Defrost	Outdoor Lighting Controls
Efficient compressor motor	Oversized Air Cooled Condenser
ECM Air Handler Motor	PC Manual Power Management Enabling
EMS - Chiller	Printer Power Management Enabling
EMS Optimization	PSMH, 250W, magnetic ballast
Energy Recovery Ventilation (ERV)	Refrigeration Commissioning
Energy Star or Better Monitor	Separate Makeup Air / Exhaust Hoods AC
Evaporator fan controller for MT walk-ins	Strip curtains for walk-ins
Floating head pressure controls	Thermal Energy Storage (TES)
Freezer-Cooler Replacement Gaskets	Variable Speed Drive Control
Heat Recovery Unit	Vending Misers (cooled machines only)
Heat Trap	VSD for Chiller Pumps and Towers

Aerosole Duct Sealing
Aerosole Duct Sealing - Chiller
Air conveying systems
Bakery - Process
Bakery - Process (Mixing) - O&M
CFL Screw-in 18W
Chiller Tune Up/Diagnostics
Clean Room - Controls
Clean Room - New Designs
Comp Air - Motor practices-1 (1-5 HP)
Comp Air - Motor practices-1 (6-100 HP)
Compressed Air - Controls
Compressed Air - System Optimization
Compressed Air- Sizing
Compressed Air-O&M
Direct drive Extruders
Drives - Optimization process (M&T)
Drives - Process Control
Drives - Process Controls (batch + site)
Drying (UV/IR)
Efficient Curing ovens
Efficient desalter
Efficient drives

Industrial

Fans - Motor practices-1 (6-100 HP)
Fans - O&M
Fans - System Optimization
Fans- Improve components
Gap Forming papermachine
Heat Pumps - Drying
Heating - Optimization process (M&T)
Heating - Process Control
High Consistency forming
Hybrid Dessicant-DX System (Trane CDQ)
Injection Moulding - Direct drive
Injection Moulding - Impulse Cooling
Light cylinders
Machinery
Membranes for wastewater
Near Net Shape Casting
New transformers welding
O&M - Extruders/Injection Moulding
O&M/drives spinning machines
Optimization control PM
Optimization Refrigeration
Optimize Controls
Optimize drying process

Efficient drives - rolling
Efficient electric melting
Efficient grinding
Efficient Machinery
Efficient practices printing press
Efficient Printing press (fewer cylinders)
Efficient processes (welding, etc.)
Efficient Refrigeration - Operations
EMS - Chiller
EMS Optimization - Chiller
Extruders/injection Moulding-multipump
Fans - Controls
Fans - Motor practices-1 (1-5 HP)

Other Process Controls (batch + site)
Process control
Process optimization
Pumps - Controls
Pumps - Motor practices-1 (1-5 HP)
Pumps - Motor practices-1 (6-100 HP)
Pumps - O&M
Pumps - Sizing
Pumps - System Optimization
Replace V-Belts
Top-heating (glass)
VSD for Chiller Pumps and Towers

2. Please provide a list of the top ten two-year payback measures, based on energy savings that passed the RIM test. Please provide this information in a format similar Late Filed Exhibit No. 2 provided by Gulf Witness Floyd in Docket 080410-EG.

ANSWER:

Measure Type	Customer Type	Building Type	Measure Name	Technical Potential*		
				Energy GWH	Summer System Peak MW	Winter System Peak MW
Energy Efficiency	Residential	1	Electronically Commutated Motors (ECM) on an Air Handler Unit	41.7	13.2	25.1
Energy Efficiency	Residential	1	High Efficiency One Speed Pool Pump (1.5 hp)	36.1	7.7	1.5
Energy Efficiency	Residential	1	Two Speed Pool Pump (1.5 hp)	35.2	7.5	1.5
Energy Efficiency	Commercial	1	CFL Screw-in 18W	33.9	6.7	4.3
Energy Efficiency	Commercial	1	Premium T8, Electronic Ballast	31.4	6.2	4.0
Energy Efficiency	Residential	1	AC Maintenance (Outdoor Coil Cleaning)	23.4	9.0	0.0
Energy Efficiency	Residential	1	Proper Refrigerant Charging and Air Flow	23.2	8.9	0.0
Energy Efficiency	Residential	1	AC Maintenance (Outdoor Coil Cleaning)	21.9	8.5	0.0
Energy Efficiency	Commercial	3	CFL Screw-in 18W	21.3	4.8	1.7
Energy Efficiency	Commercial	2	CFL Screw-in 18W	19.4	3.9	1.7

* Achievable Potential estimates were not developed for these measures. Therefore, the only values available are for Technical Potential. The Technical Potential values reflect the upper bound of potential from a technical feasibility sense, regardless of cost of acceptability to customers. These values do not reflect what is achievable in a utility-sponsored program.

3. Please identify the source of the values provided in Late Filed Exhibit No. 2 provided by Gulf Witness Floyd in Docket 080410-EG. Please describe how the values were calculated.

ANSWER:

The values used in preparing the Late Filed Exhibit No. 2 in Docket No. 080410-EG were provided by Itron in the Technical Potential Study. These values represent the full technical potential of energy and demand savings associated with each listed measure and corresponding building type. These values were calculated by multiplying the per measure savings times the available homes/buildings for which installation is technically feasible without regard to customer acceptability, cost, or timeframe.

4. What percentage of Gulf's revised DSM Plan costs are associated with incentives, administration, and marketing? Please provide this cost breakdown for each program contained in Gulf's revised DSM Plan.

ANSWER:

The cost estimates to achieve the Commission approved conservation goals are based on the Itron Achievable Potential Study projections for the E-TRC High incentive scenario plus estimated costs to achieve the additional savings associated with the two-year payback measures. These cost projections include estimates for expenses related to creating awareness, program marketing, and program administration. For purposes of evaluating cost-effectiveness, Gulf allocated these total portfolio 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 nature of most all proposed programs being new and without any historical experience of actual program operation costs.

Program	Incentives NPV of Ten Year Plan Expenditures	Incentives % of Program Expense	Administration and Marketing NPV of Ten Year Plan Expenditures	Administration and Marketing % of Program Expense
Home Energy Reporting	\$ -	0%	\$ 1,532,962	100%
Community Energy Saver	\$ 789,923	14%	\$ 4,969,431	86%
Landlord-Renter Custom	\$ 309,293	14%	\$ 1,945,815	86%
HVAC Efficiency	\$ 30,644,117	24%	\$ 97,934,090	76%
Heat Pump Water Heater	\$ 5,787,179	60%	\$ 3,842,687	40%
Ceiling Insulation	\$ 764,474	49%	\$ 795,459	51%
High Performance Window	\$ 1,842,837	29%	\$ 4,585,241	71%
Reflective Roof	\$ 725,433	31%	\$ 1,635,184	69%
Variable Speed Pool Pump	\$ 1,789,962	40%	\$ 2,697,869	60%
Energy Select	\$ -	0%	\$ 21,535,481	100%
Energy Select Lite	\$ -	0%	\$ 3,950,244	100%
Self-Install Energy Efficiency	\$ 1,789,962	8%	\$ 20,107,519	92%
Refrigerator Recycling	\$ 535,044	9%	\$ 5,121,138	91%
HVAC Retrocommissioning	\$ 1,159,142	19%	\$ 4,908,968	81%
Commercial Building Efficiency	\$ 4,272,789	48%	\$ 4,620,518	52%
HVAC Occupancy Sensor	\$ 94,382	39%	\$ 149,753	61%
High Efficiency Motors	\$ 236,013	37%	\$ 397,815	63%
Food Services	\$ 61,745	25%	\$ 185,809	75%
Commercial/Industrial Custom Incentive	\$ -	0%	\$ 2,489,203	100%
Renewable Energy	\$ 2,960,125	83%	\$ 593,539	17%
Total	\$ 53,762,420	23%	\$ 183,998,725	77%

5. Assuming implementation of the proposed rate mitigation plan described on pages 1-9, 1-10, and 1-11 of Gulf's revised DSM Plan, what percentage of Gulf's projected DSM Plan costs are associated with incentives, administration, and marketing? Please provide this cost breakdown for each program contained in Gulf's revised DSM Plan.

ANSWER:

The cost estimates to achieve the Commission approved conservation goals are based on the Itron Achievable Potential Study projections for the E-TRC High incentive scenario plus estimated costs to achieve the additional savings associated with the two-year payback measures. These cost projections include estimates for expenses related to creating awareness, program marketing, and program administration. For purposes of evaluating cost-effectiveness, Gulf allocated these total portfolio 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 nature of most all proposed programs being new and without any historical experience of actual program operation costs.

Program	Incentives NPV of Ten Year Plan Expenditures	Incentives % of Program Expense	Administration and Marketing NPV of Ten Year Plan Expenditures	Administration and Marketing % of Program Expense
Home Energy Reporting	\$ -	0%	\$ 1,532,962	100%
Community Energy Saver	\$ 789,923	14%	\$ 4,969,431	86%
Landlord-Renter Custom	\$ 309,293	14%	\$ 1,945,815	86%
HVAC Efficiency	\$ 16,474,924	23%	\$ 55,544,464	77%
Heat Pump Water Heater	\$ 5,787,179	60%	\$ 3,842,687	40%
Ceiling Insulation	\$ 764,474	49%	\$ 795,459	51%
High Performance Window	\$ 301,554	42%	\$ 423,924	58%
Reflective Roof	\$ 725,433	31%	\$ 1,635,184	69%
Variable Speed Pool Pump	\$ 1,789,962	40%	\$ 2,697,869	60%
Energy Select	\$ -	0%	\$ 21,535,481	100%
Energy Select Lite	\$ -	0%	\$ 3,950,244	100%
Self-Install Energy Efficiency	\$ 181,440	40%	\$ 270,949	60%
Refrigerator Recycling	\$ 535,044	9%	\$ 5,121,138	91%
HVAC Retrocommissioning	\$ 1,159,142	19%	\$ 4,908,968	81%
Commercial Building Efficiency	\$ 4,272,789	48%	\$ 4,620,518	52%
HVAC Occupancy Sensor	\$ 94,382	39%	\$ 149,753	61%
High Efficiency Motors	\$ 236,013	37%	\$ 397,815	63%
Food Services	\$ 61,745	25%	\$ 185,809	75%
Commercial/Industrial Custom Incentive	\$ -	0%	\$ 2,489,203	100%
Renewable Energy	\$ 2,960,125	83%	\$ 593,539	17%
Total	\$ 36,443,422	24%	\$ 117,611,212	76%

6. Please complete the table below describing the potential energy savings associated with each measure proposed in Gulf's revised DSM Plan.

ANSWER:

Measure	Projected Monthly Energy Savings per Participant (KWh)	Units
Home Energy Reporting	25	per home
Residential Community Energy Saver (CES) CFL	33	per 5 bulbs
Residential CES Water Heater Temp. Check	1.33	per unit
Residential CES DWH Pipe Wrap – 10 ft.	2.5	per 10 ft.
Residential CES Faucet Aerators	8.33	per 2 units
Residential CES Low-flow Showerheads	16.25	per 1.5 units
Residential Landlord-Renter Custom Incentive	61	per home
Residential HVAC Maintenance	109	per unit
Residential HVAC Early Retirement Tier 1	488	per unit
Residential HVAC Early Retirement Tier 2	520	per unit
Residential HVAC Early Retirement Tier 3	594	per unit
Residential HVAC Efficiency Upgrade Tier 1	131	per unit
Residential HVAC Efficiency Upgrade Tier 2	158	per unit
Residential HVAC Efficiency Upgrade Tier 3	288	per unit
Residential Duct Repair	115	per unit
Residential ECM Fan	92	per unit
Residential HPWH	112	per unit
Residential Ceiling Insulation	48	per home
Residential Window Replacement	112	per home
Residential Window Film	66	per home
Residential Reflective Roof	86	per home
Residential VS Pool Pump	208	per unit
Energy Select	64	per home
Energy Select Lite	46	per home
Residential Energy Star Refrigerator	23	per unit
Residential Energy Star Freezer	7	per unit
Residential Energy Star Window A/C	36	per unit
Residential Energy Star Clothes Washer	16	per unit
Residential CFL	5	per bulb
Residential Refrigerator Recycling	62	per unit
Commercial HVAC Retrocommissioning	327	per unit
Commercial HVAC	54	per ton
Commercial Geothermal Heat Pump	57	per ton
Commercial HPWH	3437	per 5 ton unit

Measure	Projected Monthly Energy Savings per Participant (KWh)	Units
Commercial Ceiling/Roof Insulation	0.07	per sq. ft.
Commercial Window Film	0.92	per sq. ft.
Commercial Interior Lighting	365	per kW
Commercial Interior Lighting - LED	365	per kW
Commercial Occupancy Sensor - Interior Lighting	67	per unit
Commercial Reflective Roof	0.20	per sq. ft.
Commercial Occupancy Sensor - HVAC	43	per unit
Commercial EE Motor 1-5 HP	13	per horsepower
Commercial EE Motor 6-50 HP	8	per horsepower
Commercial EE Motor 51+ HP	3	per horsepower
Commercial Food Service - Convection Oven	156	per unit
Commercial Food Service - Fryer	97	per unit
Commercial Food Service - Griddle	210	per unit
Commercial Food Service - Steamer	5007	per unit
Commercial Food Service - Holding Cabinet	545	per unit
Commercial Food Service - Ice Machine	150	per unit
Commercial/Industrial Custom Incentive	--	per project
Real Time Pricing	--	per account
Residential Solar Thermal	159	per unit
Residential Solar PV	532	per 5 kW system
Commercial Solar PV	532	per 5 kW system

7. Please indicate what changes or modifications Gulf made to the Self-Install Efficiency Program to increase participation in 2010. As part of this response, please provide the dollar amount associated with these changes or modifications.

ANSWER:

In the revised DSM Plan, Gulf modified the Self-Install Efficiency Program to increase CFL promotion in 2010 by 150,000 CFL bulbs. This change was necessary in order to meet the annual goal set for 2010. Gulf conservatively estimated the costs associated with this change to be equivalent to the average cost per CFL bulb deployment in the program. A comparison of the projected participation between the two Plans and corresponding cost impact is provided below:

Plan Year	Original DSM Plan	Revised DSM Plan	Cost Impact
2010	100,000	250,000	\$4,575,000

8. Please indicate what changes or modifications Gulf made to the HVAC Retro-Commissioning Program to change participation rates over the ten year plan. As part of this response, please provide the dollar amount associated with these changes or modifications.

ANSWER:

In the revised DSM Plan, Gulf changed the participation projections for the Commercial HVAC Retro-Commissioning Program in order for the revised DSM Plan to meet each of the annual goals set by the Commission. These modified participation projections would be accomplished by 1) beginning the program in the first year of the plan, 2010 and 2) increasing emphasis on the program in order to achieve higher participation in later years. Gulf conservatively estimated the cost associated with these changes to be the average cost per participant in the program. A comparison of the projected participation between Plans and the corresponding cost impact is provided below:

Plan Year	Original DSM Plan	Revised DSM Plan	Cost Impact
2010	0	145	\$151,815
2011	400	400	\$0
2012	600	650	\$52,350
2013	1,000	800	-\$209,400
2014	1,200	1,000	-\$209,400
2015	1,400	1,200	-\$209,400
2016	1,400	1,400	\$0
2017	1,200	1,400	\$209,400
2018	1,200	1,500	\$314,100
2019	1,000	1,300	\$314,100

9. Please describe or list any best practices gleaned from third party providers and trade allies as discussed on page 1-2 of Gulf's revised DSM Plan.

ANSWER:

During development of the DSM Plan, Gulf consulted a number of third party providers and trade allies regarding program concepts, program design, marketing, and incentive levels. Some of the third party providers administer programs for other utilities and will be considered as implementation partners in Gulf's proposed Plan.

Gulf met with third party providers regarding best practices for design and implementation of numerous programs including Low-income, HVAC Efficiency, Refrigerator Recycling and Home Energy Reporting. In each of these cases Gulf applied input from these providers' experience in the program design, participation projections, and incentive levels associated with programs in Gulf's Plan. For example, these discussions led to the development of a direct install approach to maximize participation in the low-income program. Additionally, these reviews led to incorporation of a tune-up component in the HVAC Efficiency program as a way to engage customers in the program and its savings opportunities. Subsequent to the initial DSM Plan filing, Gulf has continued to meet with other DSM providers to consider additional input that can be used to refine program standards and marketing plans.

Gulf representatives have also consulted with many local trade allies seeking input and feedback on program design and incentive levels. These include ASHRAE members, mechanical engineering firms, HVAC contractors, energy raters, and window/roofing dealers. Gulf has incorporated feedback from these resources in program designs and implementation plans.

10. Please describe or list any best practices gleaned from Gulf's participation in the Consortium for Energy Efficiency as discussed on page 1-2 of Gulf's revised DSM Plan.

ANSWER:

Gulf joined the Consortium for Energy Efficiency (CEE) in the summer of 2010 and has begun participation in Residential and Commercial/Industrial committees including Appliances, Lighting, HVAC, Motors, Kitchens, and Behavior. Previous to joining CEE, Gulf monitored activity of this group and has included best practices learned primarily in the HVAC Efficiency program design. These include use of tiers for HVAC upgrade incentives and implementation of a "quality installation" process as part of Gulf's proposed HVAC Efficiency program. Gulf's continued involvement in this collaborative will provide invaluable insight as we enter the program implementation phase of this Plan.

11. Gulf has identified a small group of measures that, if deferred, could reduce the rate impact of the DSM Plan by over 50 percent. Please respond to the following:
- a. Please explain or describe how the rate impact mitigation plan was developed.
 - b. Please explain or describe what is meant by deferred (i.e. never implemented).
 - c. Please explain or describe how the measures were selected to be deferred.
 - d. Please explain or describe whether the deferral of the selected programs would have any effect on the penetration rates of other programs.
 - e. Please explain the source of the values found in the rate impact and cumulative rate impact columns.

ANSWER:

- a. This rate impact mitigation plan is based on an assessment of each program's net benefits as calculated by the E-RIM test. While all programs are cost-effective under the E-TRC test, the RIM, or E-RIM, test measures the rate impact of programs and is a very useful tool in balancing energy efficiency objectives and customer cost. Although an assessment of net benefits provides an indication of rate impact, other considerations are also important in making any adjustments to the DSM Plan. These include continuity of program design, free-ridership, and overall cohesiveness of the program portfolio. In developing the rate impact mitigation plan, Gulf took all of these factors into account. The resulting plan identifies specific program measures that if deferred would benefit customers yet at the same time have no negative impact on the remainder of Gulf's DSM programs.
- b. Deferred means not implemented during this 5-year program design cycle but may be reconsidered for implementation in the next cycle.

- c. In selecting measures to be deferred, Gulf considered both the rate impact and other factors including continuity of program design, free-ridership, and overall cohesiveness of the program portfolio. It was Gulf's intent to minimize customer rate impact without negatively affecting the overall success of the remaining programs in the DSM plan. Gulf evaluated programs and measures that had largest rate impact first. From there, consideration was given to those program measures that could be deferred without negatively affecting the continuity of the respective program or overall mix of program offerings. For example, although HVAC maintenance increases rate impact, this component of the HVAC program is considered the foundation for customer engagement in any of the high efficiency HVAC measures; therefore, Gulf suggests that it should remain in its DSM portfolio. Additionally, some program measures identified for potential deferral in the rate impact mitigation plan include measures that have a higher probability of free-ridership; therefore, there remains a reasonable likelihood that these measures will still be implemented by customers.
- d. The deferral of these programs would not have an effect on the penetration of other programs. One of the criteria in selecting programs for the deferral list was to ensure there wasn't a negative impact on Gulf's ability to implement the other programs to achieve the Commission established goals.
- e. The values found in the rate impact column come from Section 4 – Cost-Effectiveness Results of Gulf's DSM Plan. It is simply the difference between the Rate Impact Measure (RIM) cost less the RIM benefit for each program/measure. Expressed as net benefits, this cost-effectiveness metric quantifies the relationship between costs and benefits incurred by utility customers over the program life. In order to compare values on a consistent basis, net benefits are represented on a Net Present Value (NPV) basis. The cumulative rate impact column cumulates the benefits from the bottom of the table up. Summing the net benefits of all programs provides an overall indication of rate impact to Gulf customers. This method of looking at the long term rate impact, expressed as net benefits to customers, is consistent with Table 12 in Staff's revised recommendation dated September 1, 2010.

12. Please complete the table below assuming implementation of the proposed rate impact mitigation plan. Please use assumptions consistent with those used to develop the table found at the top of page 1-4 of Gulf's revised 2010 DSM Plan filing.

ANSWER:

DSM Plan Reductions (GWh) (1)			DSM Plan Cost (2)		Residential ECCR Impacts @ 1200 kWh ¹ (3)	Non-fuel Revenue Impact (4) (1b x \$ / MWh)	DSM Plan costs + Non-fuel Revenue Impacts (2a + 2b + 4)
Year	Annual (1a)	Cumulative (1b)	Energy Efficiency and Demand Response (2a)	Renewables (2b)			
<i>Current</i>					\$1.25		
2010	21	21	\$17,820,802	\$900,338	\$2.19	\$1,222,441	\$19,943,581
2011	31	40	\$36,207,774	\$900,338	\$4.23	\$2,331,600	\$39,439,712
2012	40	69	\$36,169,951	\$900,338	\$4.05	\$4,138,160	\$41,208,449
2013	52	109	\$43,178,084	\$900,338	\$4.66	\$6,676,488	\$50,754,910
2014	53	151	\$44,883,925	\$900,338	\$4.76	\$9,444,369	\$55,228,632
2015	52	202	\$52,998,251		\$5.40	\$14,362,304	\$67,360,555
2016	47	249	\$50,446,940		\$5.04	\$17,976,752	\$68,423,692
2017	51	300	\$46,223,548		\$4.51	\$21,331,887	\$67,555,435
2018	49	343	\$44,758,123		\$4.28	\$25,002,500	\$69,760,623
2019	47	383	\$42,880,428		\$4.01	\$27,619,020	\$70,499,448
TOTALS		383	\$415,567,825	\$4,501,690		\$130,105,521	\$550,175,036

¹ Residential Class ECCR impacts of the program costs in 2a and 2b based on Gulf's standard ECCR calculation, calculated by applying those program costs to the residential class ECCR demand and energy allocation factors, summing the resulting costs, dividing that sum by the kWh energy sales for that customer class, and multiplying by 1200.

13. Please complete the table below describing the projected residential savings at the generator assuming implementation of the proposed rate impact mitigation plan.

ANSWER:

Residential Savings at the Generator						
Year	DSM Plan Annual gWh Reduction	DSM Plan Cumulative gWh Reduction	DSM Plan Annual Winter mW Reduction	DSM Plan Cumulative Winter mW Reduction	DSM Plan Annual Summer mW Reduction	DSM Plan Cumulative Summer mW Reduction
2010	17.7	17.7	7.4	7.4	6.7	6.7
2011	25.1	31.3	9.4	14.1	8.7	12.7
2012	32.6	52.5	11.2	22.5	10.6	20.5
2013	41.9	83.0	13.5	33.2	13.3	31.0
2014	42.0	113.5	13.4	43.9	13.7	42.0
2015	39.6	153.1	12.8	56.7	13.1	55.1
2016	34.2	187.3	11.0	67.6	11.1	66.3
2017	37.7	225.0	11.9	79.5	11.8	78.1
2018	36.2	254.7	11.6	89.5	11.3	87.8
2019	34.9	283.1	11.3	99.3	10.9	97.2

14. Please complete the table below describing the projected commercial/industrial savings at the generator assuming implementation of the proposed rate impact mitigation plan.

ANSWER:

The rate impact mitigation plan did not include deferral of commercial programs or measures, therefore, the following table is the same as is reflected on page 1-7 of the revised DSM Plan.

Commercial/Industrial Savings at the Generator						
	DSM Plan Annual gWh Reduction	DSM Plan Cumulative gWh Reduction	DSM Plan Annual Winter mW Reduction	DSM Plan Cumulative Winter mW Reduction	DSM Plan Annual Summer mW Reduction	DSM Plan Cumulative Summer mW Reduction
Year	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction
2010	3.3	3.3	3.4	3.4	6.4	6.4
2011	5.6	8.9	1.1	4.5	2.1	8.5
2012	7.8	16.6	1.4	6.0	2.9	11.4
2013	9.6	26.2	1.8	7.7	3.6	14.9
2014	11.0	37.2	2.0	9.7	4.1	19.0
2015	12.1	49.3	2.0	11.8	4.6	23.6
2016	12.8	62.1	2.1	13.9	4.9	28.4
2017	12.8	74.9	2.1	16.0	4.8	33.3
2018	12.9	87.7	2.0	18.0	4.9	38.1
2019	12.0	99.7	1.9	19.9	4.5	42.6

15. Please complete the table below for each program contained in Gulf's revised DSM Plan.

ANSWER:

Program Name	E-TRC	E-RIM	Participant
Home Energy Reporting	1.03	0.77	1.50
Community Energy Saver	1.70	0.59	14.70
Landlord-Renter Custom	1.67	0.59	14.46
HVAC Efficiency	1.81	0.77	3.80
Heat Pump Water Heater	1.04	0.52	2.40
Ceiling Insulation	1.19	0.65	2.21
High Performance Window	2.04	0.70	5.57
Reflective Roof	2.51	0.97	4.22
Variable Speed Pool Pump	2.72	1.00	4.49
Energy Select	1.64	1.01	4.37
Energy Select Lite	2.17	1.28	99.00
Self-Install Energy Efficiency	1.37	0.59	4.95
Refrigerator Recycling	2.46	0.68	99.00
HVAC Retrocommissioning	4.72	1.08	12.95
Commercial Building Efficiency	2.74	1.00	3.45
HVAC Occupancy Sensor	2.25	0.77	4.32
High Efficiency Motors	2.73	1.00	4.75
Food Services	3.86	0.93	8.46

16. Please complete the table below for each program contained in Gulf's revised DSM Plan, assuming implementation of the proposed rate mitigation plan.

ANSWER:

Program Name	E-TRC	E-RIM	Participant
Home Energy Reporting	1.03	0.77	1.50
Community Energy Saver	1.70	0.59	14.70
Landlord-Renter Custom	1.67	0.59	14.46
HVAC Efficiency	2.15	0.77	6.11
Heat Pump Water Heater	1.04	0.52	2.40
Ceiling Insulation	1.19	0.65	2.21
High Performance Window	1.05	0.74	1.60
Reflective Roof	2.51	0.97	4.22
Variable Speed Pool Pump	2.72	1.00	4.49
Energy Select	1.64	1.01	4.37
Energy Select Lite	2.17	1.28	99.00
Self-Install Energy Efficiency	1.65	0.64	11.65
Refrigerator Recycling	2.46	0.68	99.00
HVAC Retrocommissioning	4.72	1.08	12.95
Commercial Building Efficiency	2.74	1.00	3.45
HVAC Occupancy Sensor	2.25	0.77	4.32
High Efficiency Motors	2.73	1.00	4.75
Food Services	3.86	0.93	8.46

17. Please provide a copy of the peer review discussed on page 1-2 of Gulf's revised DSM Plan.

ANSWER:

Gulf does not possess any formal documentation of peer utility review. In the beginning of the program development phase of the DSM Plan, Gulf held informal conference calls with FP&L, PEF, and TECO to learn more about programs in their respective portfolios that Gulf would consider in order to meet the Commission approved goals. Through this process, Gulf gained valuable insight into their experiences deploying numerous programs including duct repair and low-income. Each of these utilities was very helpful in sharing best practices related to program design, standards, marketing, and general approaches to managing a larger portfolio than Gulf has historically offered.

Gulf has informally reviewed Georgia Power's DSM plan and has incorporated some components of that plan including a Refrigerator Recycling program. While developing the HVAC Efficiency program, Gulf held informal conversations with Kansas City Power & Light (KCP&L) to gain best practices from their Cool Homes program. Throughout the entire program development phase of this process, Gulf has conducted numerous reviews of utility programs via web searches to gain insight into program offerings, incentives, rebate processing, and on-line promotion approaches.

18. Please provide the work papers associated with developing the proposed rate impact mitigation plan discussed on pages 1-9, 1-10, and 1-11 of Gulf's revised DSM Plan.

ANSWER:

Work papers utilized to develop the rate impact mitigation plan are attached on the following pages. The method used to develop the rate impact mitigation plan is described in response to item number 11.

Program/Measure Cost Effectiveness Comparison
Cost-Effectiveness Revised to Reflect Updated DSM Plan 11/03/2010

Program	Measure		Projected			RIM			Cumulative GWh Energy Savings	Rate Payer Impact	Cumulative Rate Payer Impact (\$)		
			GWh Energy Savings 2010-2019	TRC Ratio	TRC Benefit	TRC Cost	TRC Net Benefit	RIM Ratio				RIM Benefit	RIM Cost
HVAC Efficiency	HVAC Early Retirement Tier 1	Res	117.80	1.59	\$ 136,614,153	\$ 86,098,572	\$ 50,515,581	0.77	\$ 136,614,153	\$ 176,288,484	648.45	\$ 39,674,331	\$ 165,029,000
HVAC Efficiency	HVAC Maintenance	Res	81.90	1.84	\$ 60,022,128	\$ 32,595,078	\$ 27,427,050	0.72	\$ 60,022,128	\$ 83,468,618	530.65	\$ 23,446,490	\$ 125,354,669
Self-Install Energy Efficiency	Compact Fluorescent Lamp	Res	35.91	1.25	\$ 19,634,901	\$ 15,706,569	\$ 3,928,332	0.51	\$ 19,634,901	\$ 38,654,413	448.75	\$ 19,019,512	\$ 101,908,179
HVAC Efficiency	Duct Repair	Res	59.40	2.68	\$ 71,797,848	\$ 26,787,205	\$ 45,010,643	0.82	\$ 71,797,848	\$ 87,168,690	412.84	\$ 15,370,842	\$ 82,888,667
Heat Pump Water Heater		Res	14.70	1.04	\$ 13,355,775	\$ 12,892,190	\$ 463,585	0.52	\$ 13,355,775	\$ 25,558,064	353.44	\$ 12,202,289	\$ 67,517,825
HVAC Efficiency	HVAC Upgrade Tier 1	Res	23.90	2.11	\$ 27,371,488	\$ 12,999,745	\$ 14,371,743	0.76	\$ 27,371,488	\$ 36,247,644	338.74	\$ 6,876,156	\$ 55,315,536
HVAC Efficiency	HVAC Early Retirement Tier 2	Res	18.80	1.36	\$ 21,606,131	\$ 15,859,872	\$ 5,746,259	0.76	\$ 21,606,131	\$ 28,358,634	314.84	\$ 6,752,503	\$ 46,439,380
High Performance Window	Window Replacement	Res	14.80	2.25	\$ 14,600,367	\$ 6,481,568	\$ 8,118,799	0.69	\$ 14,600,367	\$ 21,069,348	296.04	\$ 6,468,981	\$ 39,686,877
Refrigerator Recycling		Res	19.11	2.46	\$ 12,582,097	\$ 5,121,138	\$ 7,460,959	0.68	\$ 12,582,097	\$ 18,543,278	281.24	\$ 5,961,181	\$ 33,217,896
Self-Install Energy Efficiency	Energy Star Clothes Washer	Res	9.80	1.02	\$ 7,559,776	\$ 7,390,970	\$ 168,806	0.59	\$ 7,559,776	\$ 12,777,049	262.13	\$ 5,217,273	\$ 27,256,715
HVAC Efficiency	ECM Fan	Res	17.14	2.56	\$ 19,370,244	\$ 7,578,343	\$ 11,791,901	0.81	\$ 19,370,244	\$ 23,767,215	252.33	\$ 4,396,971	\$ 22,039,442
Community Energy Saver	Compact Fluorescent Light Bulbs	Res	8.07	1.74	\$ 4,793,738	\$ 2,752,161	\$ 2,041,577	0.56	\$ 4,793,738	\$ 8,561,793	235.20	\$ 3,768,055	\$ 17,642,471
Self-Install Energy Efficiency	Energy Star Refrigerator	Res	8.90	1.99	\$ 8,451,679	\$ 4,237,247	\$ 4,214,432	0.70	\$ 8,451,679	\$ 12,149,018	227.13	\$ 3,697,339	\$ 13,874,416
Landlord-Renter Custom		Res	6.02	1.67	\$ 3,768,999	\$ 2,255,108	\$ 1,513,891	0.59	\$ 3,768,999	\$ 6,419,343	218.23	\$ 2,650,344	\$ 10,177,077
HVAC Efficiency	HVAC Upgrade Tier 2	Res	4.44	1.18	\$ 5,114,190	\$ 4,336,388	\$ 777,802	0.68	\$ 5,114,190	\$ 7,531,582	212.21	\$ 2,417,392	\$ 7,526,733
Community Energy Saver	Low-flow Showerheads	Res	4.00	1.86	\$ 2,548,286	\$ 1,370,002	\$ 1,178,284	0.60	\$ 2,548,286	\$ 4,238,048	207.77	\$ 1,689,762	\$ 5,109,341
Home Energy Reporting		Res	65.40	1.03	\$ 5,304,300	\$ 5,128,000	\$ 176,300	0.77	\$ 5,304,300	\$ 6,937,284	203.77	\$ 1,632,984	\$ 3,419,579
Ceiling Insulation		Res	2.60	1.19	\$ 2,946,946	\$ 2,481,944	\$ 465,002	0.65	\$ 2,946,946	\$ 4,523,927	138.37	\$ 1,576,981	\$ 1,786,595
HVAC Efficiency	HVAC Early Retirement Tier 3	Res	3.93	1.12	\$ 4,665,688	\$ 4,177,145	\$ 488,543	0.78	\$ 4,665,688	\$ 6,018,516	135.77	\$ 1,352,828	\$ 209,614
Community Energy Saver	Faucet Aerators	Res	2.04	1.82	\$ 3,318,348	\$ 725,273	\$ 593,075	0.60	\$ 3,318,348	\$ 2,194,595	131.84	\$ 876,247	\$ (1,143,214)
HVAC Efficiency	HVAC Upgrade Tier 3	Res	1.95	1.06	\$ 2,181,362	\$ 2,058,392	\$ 122,970	0.72	\$ 2,181,362	\$ 3,033,237	129.80	\$ 851,875	\$ (2,019,461)
High Performance Window	Window Film	Res	1.50	1.05	\$ 1,499,143	\$ 1,429,103	\$ 70,040	0.74	\$ 1,499,143	\$ 2,029,461	127.85	\$ 530,318	\$ (2,871,336)
Commercial Building Efficiency	HVAC	C/I	3.55	2.89	\$ 4,217,093	\$ 1,459,584	\$ 2,757,509	0.90	\$ 4,217,093	\$ 4,688,443	126.35	\$ 471,350	\$ (3,801,654)
Self-Install Energy Efficiency	Energy Star Freezer	Res	0.54	1.20	\$ 524,989	\$ 436,692	\$ 88,297	0.59	\$ 524,989	\$ 882,690	122.79	\$ 357,701	\$ (3,873,004)
Community Energy Saver	DWH Pipe Wrap	Res	0.61	1.40	\$ 391,126	\$ 278,610	\$ 112,516	0.54	\$ 391,126	\$ 719,848	122.26	\$ 328,772	\$ (4,230,705)
Reflective Roof		Res	5.50	2.51	\$ 8,167,427	\$ 3,247,792	\$ 4,919,635	0.97	\$ 8,167,427	\$ 8,436,264	121.64	\$ 268,837	\$ (4,559,427)
HVAC Occupancy Sensor		C/I	1.10	2.25	\$ 801,295	\$ 356,335	\$ 444,960	0.77	\$ 801,295	\$ 1,041,786	116.14	\$ 240,491	\$ (4,828,264)
Commercial Building Efficiency	Geothermal Heat Pump	C/I	1.65	1.65	\$ 3,429,650	\$ 2,075,261	\$ 1,354,389	0.92	\$ 3,429,650	\$ 2,867,235	115.04	\$ 221,275	\$ (5,968,755)
High Efficiency Motors	High Efficiency Motor 51+ HP	C/I	0.90	2.07	\$ 788,710	\$ 380,551	\$ 408,159	0.79	\$ 788,710	\$ 996,381	113.39	\$ 207,671	\$ (5,290,030)
High Efficiency Motors	High Efficiency Motor 6-50 HP	C/I	1.83	3.25	\$ 1,626,358	\$ 500,014	\$ 1,126,344	0.92	\$ 1,626,358	\$ 1,766,568	112.50	\$ 140,210	\$ (5,497,701)
Community Energy Saver	Water Heater Temperature Check and Adjust	Res	0.03	2.06	\$ 205,418	\$ 99,920	\$ 105,498	0.61	\$ 205,418	\$ 335,247	110.66	\$ 129,829	\$ (5,637,911)
Commercial Building Efficiency	Window Film	C/I	4.03	2.39	\$ 4,105,289	\$ 1,714,861	\$ 2,390,428	0.98	\$ 4,105,289	\$ 4,183,203	110.63	\$ 77,914	\$ (5,767,740)
Food Service Equipment	Ice Machine	C/I	0.27	2.14	\$ 179,013	\$ 83,652	\$ 95,361	0.73	\$ 179,013	\$ 244,555	106.60	\$ 65,542	\$ (5,845,654)
Variable Speed Pool Pump		Res	8.84	2.72	\$ 14,487,696	\$ 5,332,078	\$ 9,155,618	1.00	\$ 14,487,696	\$ 14,526,383	106.38	\$ 38,687	\$ (5,911,196)
Food Service Equipment	Fryer	C/I	0.06	1.10	\$ 53,922	\$ 48,918	\$ 5,004	0.66	\$ 53,922	\$ 81,830	97.54	\$ 27,908	\$ (5,949,883)
Food Service Equipment	Convection Oven	C/I	0.08	1.47	\$ 72,008	\$ 48,942	\$ 23,066	0.75	\$ 72,008	\$ 95,588	97.48	\$ 23,580	\$ (5,977,791)
Commercial Building Efficiency	Reflective Roof	C/I	9.61	2.50	\$ 14,368,335	\$ 746,730	\$ 13,621,605	1.00	\$ 14,368,335	\$ 14,385,989	97.40	\$ 17,654	\$ (6,001,371)
Food Service Equipment	Griddle	C/I	0.04	1.34	\$ 36,205	\$ 26,950	\$ 9,255	0.70	\$ 36,205	\$ 51,902	87.79	\$ 15,697	\$ (6,019,025)
High Efficiency Motors	High Efficiency Motor 1-5 HP	C/I	0.08	2.33	\$ 75,186	\$ 32,304	\$ 42,882	0.91	\$ 75,186	\$ 82,790	87.75	\$ 7,604	\$ (6,034,722)
Food Service Equipment	Holding Cabinet	C/I	0.71	5.87	\$ 607,784	\$ 103,471	\$ 504,313	0.99	\$ 607,784	\$ 610,944	87.66	\$ 3,160	\$ (6,042,326)
Commercial Building Efficiency	Heat Pump Water Heater	C/I	0.81	3.18	\$ 889,368	\$ 280,000	\$ 609,368	0.97	\$ 889,368	\$ 918,960	87.76	\$ 29,592	\$ (6,015,894)
Commercial Building Efficiency	Interior Lighting -LED	C/I	2.40	2.49	\$ 2,270,832	\$ 911,248	\$ 1,359,584	1.00	\$ 2,270,832	\$ 2,271,768	86.95	\$ 996	\$ (6,045,486)
Community Energy Saver	Foam Outlet & Switch Gaskets	Res									84.55	\$ -	\$ (6,046,422)
Community Energy Saver	Refrigerator Coil Brush	Res									84.55	\$ -	\$ (6,046,422)
Commercial/Industrial Custom Incentive		C/I	18.53								84.55	\$ -	\$ (6,046,422)
Real Time Pricing		C/I									66.02	\$ -	\$ (6,046,422)
Food Service Equipment	Steamer	C/I	0.33	29.48	\$ 295,058	\$ 10,009	\$ 285,049	1.17	\$ 295,058	\$ 251,993	66.02	\$ (43,065)	\$ (6,046,422)
Commercial Building Efficiency	Interior Lighting	C/I	5.01	3.50	\$ 4,984,234	\$ 1,425,470	\$ 3,558,764	1.02	\$ 4,984,234	\$ 4,874,016	65.69	\$ (110,218)	\$ (6,003,357)
Commercial Building Efficiency	Occupancy Sensor Interior Lighting	C/I	5.60	5.76	\$ 5,632,765	\$ 978,091	\$ 4,654,674	1.04	\$ 5,632,765	\$ 5,392,471	60.68	\$ (240,294)	\$ (5,893,139)
Commercial Building Efficiency	Ceiling/Roof Insulation	C/I	1.08	4.53	\$ 2,007,077	\$ 443,371	\$ 1,563,706	1.28	\$ 2,007,077	\$ 1,569,361	55.08	\$ (437,716)	\$ (5,652,845)
Self-Install Energy Efficiency	Energy Star Window A/C	Res	1.80	3.73	\$ 2,491,216	\$ 668,102	\$ 1,823,114	1.22	\$ 2,491,216	\$ 2,037,981	54.00	\$ (453,235)	\$ (5,215,129)
Energy Select		Res	8.30	1.64	\$ 43,185,285	\$ 26,378,015	\$ 16,807,270	1.01	\$ 43,185,285	\$ 42,686,120	52.20	\$ (499,165)	\$ (4,761,894)
Energy Select Lite		Res	2.00	2.17	\$ 8,568,566	\$ 3,950,244	\$ 4,618,322	1.28	\$ 8,568,566	\$ 6,679,040	43.90	\$ (1,889,526)	\$ (4,262,729)
HVAC Retrocommissioning		C/I	41.90	4.72	\$ 32,313,468	\$ 6,842,043	\$ 25,471,425	1.08	\$ 32,313,468	\$ 29,940,265	41.90	\$ (2,373,203)	\$ (2,373,203)