Susan D. Ritenour
Secretary and Treasurer
and Regulatory Manager

One Energy Place
Pensacola, Florida 32520-0781

Tel 850.444.6231
Fax 850.444.6026
SDRITENO@southernco.com

September 30, 2008

GULF POWER
A SOUTHERN COMPANY

Ms. Ann Cole
Office of the Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee FL 32399-0872

Dear Ms. Cole:

RE: Docket No. 080395-EG, Data Request

Please allow this to serve as Gulf's response to Staff's September 25, 2008, Data Request in the above-referenced docket. On September 29, Gulf Power's counsel spoke with Steve Garl and explained that the cost-effectiveness figures emailed to Staff on August 15, 2008, excluded the $375,000 in expenditures for the low-income, multifamily component of Gulf's proposed Solar Thermal Water Heating Pilot. Mr. Garl then requested that Gulf run the traditional RIM, TRC and Participant cost-effectiveness tests with the low-income, multifamily program expenditures included. Attached is a spreadsheet reflecting the calculations requested by Mr. Garl. Consistent with Gulf Power's response to question number 13 of Staff's July 18, 2008, Data Request, Gulf has categorized all program costs for the low-income, multifamily component of the pilot as incentives for purposes of the calculations.

Please feel free to contact me should you have additional questions or concerns.

Sincerely,

Susan D. Ritenour (lw)

lw

Attachment

cc: Beggs and Lane
Jeffrey A. Stone
Florida Public Service Commission
Katherine Fleming
Steve Garl

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INPUT DATA -- PART 1

Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code

I. Program Demand Impacts and Line Losses

(1) Change in Peak kW Customer at meter	-0.25	kW/Cus
(2) Change in Peak kW per Customer at generator	-0.33	kW Gen/Cus
(3) kW Line Loss Percentage	14.21%	
(4) Change in KWh per Customer at generator	(2,835)	kWh/Cus/Yr
(5) kWh Line Loss Percentage	9.05%	
(6) Group Line Loss Multiplier	1.0007	
(7) Annual Change in Customer kWh at Meter	(2,600)	kWh/Cus/Yr
* (8) Change in Winter kW per Cust at meter	-0.25	kW/Cus

II. Economic Life and K-Factors

(1) DSM Program Study Period	20	Years
(2) Economic Life of Incremental Generation	40	Years
(3) Economic Life of Incremental T&D	35	Years
(4) K-Factor for Generation	1.4640	
(5) K-Factor for T&D	1.4604	
* (6) Switch: Rev Req (0) or Val-of-Def (1)	1	

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	$617.00	$/Cus
(2) Utility Recurring Cost Per Customer	$0.00	$/Cus/Year
(3) Utility Cost Escalation Rate	0.00%	
(4) Customer Equipment Cost	$3,800.00	$/Cus
(5) Customer Equipment Cost Escalation Rate	1.90%	
(6) Customer O&M Cost	$0.00	$/Cus/Year
(7) Customer O&M Cost Escalation Rate	1.90%	
* (8) Customer Tax Credit Per Installation	$0.00	$/Cus
* (9) Customer Tax Credit Escalation Rate	1.90%	
* (10) Change in Supply Costs	$0.00	$/Cus/Year
* (11) Supply Costs Escalation Rate	1.90%	
* (12) Utility Discount Rate	8.44%	
* (13) Utility AFUDC Rate	7.48%	
* (14) Utility Nonrecurring Rebate/Incentive	$1,916.00	$/Cus
* (15) Utility Recurring Rebate/Incentive	$0.00	$/Cus/Year
* (16) Utility Rebate/Incentive Escalation Rate	0.00%	

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2009	
(2) In-Service Year For Incremental Generation	2014 **	
(3) In-Service Year For Incremental T & D	2010	
(4) Base Year Incremental Generation Cost	$655.49	$/kW
(5) Base Year Incremental Transmission Cost	$140.37	$/kW
(6) Base Year Incremental Distribution Cost	$68.29	$/kW
(7) Gen, Tran, & Dist Cost Escalation Rate	1.90%	
(8) Generator Fixed O & M Cost	$0.00	$/kW/Yr
(9) Generator Fixed O&M Escalation Rate	#DIV/0!	
(10) Transmission Fixed O & M Cost	$1.75	$/kW/Yr
(11) Distribution Fixed O & M Cost	$1.71	$/kW/Yr
(12) T&D Fixed O&M Escalation Rate	1.90%	
(13) Incremental Gen Variable O & M Costs	$0.000	$/kW/Yr
(14) Incre Gen Variable O&M Cost Esc Rate	0.00%	
(15) Incremental Gen Capacity Factor	40.80%	
(16) Incremental Generating Unit Fuel Cost	$0.0689	$/kWh
(17) Incremental Gen Unit Fuel Esc Rate	3.31%	
(18) Incremental Purchased Capacity Cost	$12.49	$/KW/YR
(19) Incremental Capacity Cost Esc Rate	11.69%	
Stop Revenue Loss at In-Service Year? (Y=1, N=0)	0	

V. (1) Non-Fuel Cost In Customer Bill (Base Year)

(1) Non-Fuel Cost In Customer Bill (Base Year)	$0.0473	$/kWh
(2) Non-Fuel Escalation Rate	Per Table	
(3) Customer Demand Charge Per kW (Base Year)	$0.0000	$/kW/Mo
(4) Demand Charge Escalation Rate	Per Table	
* (5)Average Annual Change in Monthly Billing kW	0	kW/Mo.

Summary Results for This Analysis

	RIM	Participants'
NPV Benefits($000s)	$830	$1,449
NPV Costs ($000s)	$1,632	$1,139
NPV Net Benefits ($000s)	($801)	$310
Benefit:Cost Ratio	0.509	1.272

* Supplemental information.

** The relevant avoidable generation unit is a combined cycle unit.

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Total Resource Cost-Effectiveness Measure
Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code

1	2	3	4	5	6	7	8	9	10	11	12	13
Year	Change in Electric Supply Costs ($000s)	Utility's Program Costs ($000s)	Participants' Program Costs ($000s)	Other Costs ($000s)	Other Benefits ($000s)	Incremental Generation Cap Costs ($000s)	Incremental T&D Cap Costs ($000s)	Incremental Prog Induced Fuel Costs ($000s)	Total Costs ($000s)	Total Benefits ($000s)	Total Net Benefits ($000s)	Cumulative Discounted Net Benefits ($000s)
2009	$0	$101	$619	$0	$0	$0	$0	($32)	$720	$32	($688)	($688)
2010	$0	$46	$290	$0	$0	$0	($2)	($46)	$337	$48	($289)	($955)
2011	$0	$46	$296	$0	$0	$0	($3)	($59)	$342	$62	($280)	($1,193)
2012	$0	$0	$0	$0	$0	$0	($3)	($59)	$0	$62	$62	($1,144)
2013	$0	$0	$0	$0	$0	$0	($3)	($61)	$0	$64	$64	($1,098)
2014	$0	$0	$0	$0	$0	($8)	($3)	($65)	$0	$76	$76	($1,048)
2015	$0	$0	$0	$0	$0	($14)	($3)	($65)	$0	$82	$82	($997)
2016	$0	$0	$0	$0	$0	($14)	($3)	($71)	$0	$88	$88	($947)
2017	$0	$0	$0	$0	$0	($14)	($3)	($72)	$0	$90	$90	($900)
2018	$0	$0	$0	$0	$0	($14)	($3)	($77)	$0	$95	$95	($855)
2019	$0	$0	$0	$0	$0	($15)	($3)	($83)	$0	$100	$100	($810)
2020	$0	$0	$0	$0	$0	($15)	($3)	($88)	$0	$106	$106	($767)
2021	$0	$0	$0	$0	$0	($15)	($3)	($89)	$0	$107	$107	($726)
2022	$0	$0	$0	$0	$0	($15)	($3)	($92)	$0	$111	$111	($687)
2023	$0	$0	$0	$0	$0	($15)	($3)	($96)	$0	$115	$115	($651)
2024	$0	$0	$0	$0	$0	($15)	($4)	($100)	$0	$119	$119	($615)
2025	$0	$0	$0	$0	$0	($16)	($4)	($103)	$0	$122	$122	($582)
2026	$0	$0	$0	$0	$0	($16)	($4)	($107)	$0	$126	$126	($550)
2027	$0	$0	$0	$0	$0	($16)	($4)	($110)	$0	$130	$130	($520)
2028	$0	$0	$0	$0	$0	($16)	($4)	($113)	$0	$133	$133	($491)
Nominal		$193	$1,206			($218)	($61)	($1,588)	$1,399	$1,867	$468	
NPV		$183	$1,139	$0	$0	($85)	($28)	($718)	$1,321	$830	($491)	

Discount Rate =	8.44%
Benefit/Cost Ratio =	0.63

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Participants' Cost-Effectiveness Measure

Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code

1	2	3	4	5	6	7	8	9	10	11	12
Year	Customer Equip Costs ($000s)	Customer O&M Costs ($000s)	Other Costs ($000s)	Other Benefits ($000s)	Change in Participants' Electric Bills ($000s)	Tax Credits ($000s)	Utility Paid Rebates & Incentives ($000s)	Total Costs ($000s)	Total Benefits ($000s)	Total Net Benefits ($000s)	Cumulative Discounted Net Benefits ($000s)
2009	$619	$0	$0	$0	($37)	$0	$312	$619	$349	($270)	($270)
2010	$290	$0	$0	$0	($52)	$0	$144	$290	$196	($95)	($358)
2011	$296	$0	$0	$0	($75)	$0	$144	$296	$218	($78)	($424)
2012	$0	$0	$0	$0	($74)	$0	$0	$0	$74	$74	($365)
2013	$0	$0	$0	$0	($74)	$0	$0	$0	$74	$74	($312)
2014	$0	$0	$0	$0	($79)	$0	$0	$0	$79	$79	($259)
2015	$0	$0	$0	$0	($87)	$0	$0	$0	$87	$87	($205)
2016	$0	$0	$0	$0	($92)	$0	$0	$0	$92	$92	($153)
2017	$0	$0	$0	$0	($92)	$0	$0	$0	$92	$92	($105)
2018	$0	$0	$0	$0	($96)	$0	$0	$0	$96	$96	($59)
2019	$0	$0	$0	$0	($99)	$0	$0	$0	$99	$99	($15)
2020	$0	$0	$0	$0	($106)	$0	$0	$0	$106	$106	$29
2021	$0	$0	$0	$0	($108)	$0	$0	$0	$108	$108	$69
2022	$0	$0	$0	$0	($111)	$0	$0	$0	$111	$111	$108
2023	$0	$0	$0	$0	($115)	$0	$0	$0	$115	$115	$145
2024	$0	$0	$0	$0	($123)	$0	$0	$0	$123	$123	$182
2025	$0	$0	$0	$0	($125)	$0	$0	$0	$125	$125	$216
2026	$0	$0	$0	$0	($130)	$0	$0	$0	$130	$130	$249
2027	$0	$0	$0	$0	($135)	$0	$0	$0	$135	$135	$280
2028	$0	$0	$0	$0	($141)	$0	$0	$0	$141	$141	$310
Nominal	$1,206				($1,951)		$600	$1,206	$2,550	$1,345	
NPV	$1,050	$0	$0	$0	($882)	$0	$567	$1,139	$1,449	$310	

Discount Rate =	8.44%
Benefit/Cost Ratio =	1.27

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Ratepayers' Impact Cost-Effectiveness Measure
Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Year	Change in Electric Supply Costs ($000s)	Utility's Program Costs ($000s)	Utility Paid Rebates & Incentives ($000s)	Change in Electric Revenues ($000)	Incremental Generation Cap Costs ($000s)	Incremental T&D Cap Costs ($000s)	Incremental Prog Induced Fuel Costs ($000s)	Other Costs ($000s)	Other Benefits ($000s)	Total Costs ($000s)	Total Benefits ($000s)	Total Net Benefits to All Customers ($000s)	Cumulative Discounted Net Benefits ($000s)
2009	$0.000	$100.571	$312.308	($36.920)	$0.000	$0.000	($31.825)	$0.000	$0.000	$449.799	$31.825	($417.974)	($417.974)
2010	$0.000	$46.275	$143.700	($51.959)	$0.000	($2.065)	($45.656)	$0.000	$0.000	$241.934	$47.721	($194.213)	($597.076)
2011	$0.000	$46.275	$143.700	($74.632)	$0.000	($2.767)	($59.463)	$0.000	$0.000	$264.607	$62.230	($202.377)	($769.186)
2012	$0.000	$0.000	$0.000	($74.221)	$0.000	($2.819)	($58.830)	$0.000	$0.000	$74.221	$61.650	($12.571)	($779.045)
2013	$0.000	$0.000	$0.000	($73.968)	$0.000	($2.873)	($61.078)	$0.000	$0.000	$73.968	$63.951	($10.017)	($786.290)
2014	$0.000	$0.000	$0.000	($79.129)	($7.876)	($2.928)	($64.793)	$0.000	$0.000	$79.129	$75.597	($3.532)	($788.646)
2015	$0.000	$0.000	$0.000	($87.127)	($13.888)	($2.983)	($65.409)	$0.000	$0.000	$87.127	$82.281	($4.846)	($791.627)
2016	$0.000	$0.000	$0.000	($91.848)	($14.053)	($3.040)	($70.659)	$0.000	$0.000	$91.848	$87.752	($4.097)	($793.950)
2017	$0.000	$0.000	$0.000	($92.379)	($14.221)	($3.098)	($72.211)	$0.000	$0.000	$92.379	$89.529	($2.850)	($795.441)
2018	$0.000	$0.000	$0.000	($95.583)	($14.391)	($3.156)	($77.128)	$0.000	$0.000	$95.583	$94.676	($0.907)	($795.879)
2019	$0.000	$0.000	$0.000	($98.860)	($14.565)	($3.216)	($82.640)	$0.000	$0.000	$98.860	$100.422	$1.562	($795.184)
2020	$0.000	$0.000	$0.000	($106.440)	($14.743)	($3.278)	($88.026)	$0.000	$0.000	$106.440	$106.047	($0.393)	($795.345)
2021	$0.000	$0.000	$0.000	($107.805)	($14.923)	($3.340)	($89.064)	$0.000	$0.000	$107.805	$107.327	($0.478)	($795.526)
2022	$0.000	$0.000	$0.000	($110.766)	($15.107)	($3.403)	($92.074)	$0.000	$0.000	$110.766	$110.585	($0.181)	($795.589)
2023	$0.000	$0.000	$0.000	($115.421)	($15.295)	($3.468)	($95.885)	$0.000	$0.000	$115.421	$114.648	($0.773)	($795.838)
2024	$0.000	$0.000	$0.000	($122.746)	($15.486)	($3.534)	($100.037)	$0.000	$0.000	$122.746	$119.057	($3.689)	($796.933)
2025	$0.000	$0.000	$0.000	($125.051)	($15.681)	($3.601)	($102.633)	$0.000	$0.000	$125.051	$121.914	($3.136)	($797.791)
2026	$0.000	$0.000	$0.000	($129.778)	($15.879)	($3.669)	($106.715)	$0.000	$0.000	$129.778	$126.263	($3.515)	($798.678)
2027	$0.000	$0.000	$0.000	($135.047)	($16.081)	($3.739)	($110.242)	$0.000	$0.000	$135.047	$130.062	($4.985)	($799.838)
2028	$0.000	$0.000	$0.000	($140.869)	($16.287)	($3.810)	($113.381)	$0.000	$0.000	$140.869	$133.478	($7.391)	($801.424)
Nominal		$193.121	$599.708	($1,950.550)	($218.476)	($60.787)	($1,587.750)			$2,743.379	$1,867.014	($876.365)	
NPV		$182.600	$567.036	($882.166)	($84.643)	($28.191)	($717.543)	$0.000	$0.000	$1,631.802	$830.377	($801.424)	
Discount Rate =		8.44%											
Benefit/Cost Ratio =		0.51											