FLORIDA PUBLIC SERVICE COMMISSION
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MEMORANDUM

August 28, 1997

TO: DIRECTOR, DIVISION OF RECORDS AND REPORTING (BAYO)

FROM: DIVISION OF ELECTRIC & GAS (HAFF) MSH TB RJ
DIVISION OF LEGAL SERVICES (KEATING) WCK RJE JDJ

RE: DOCKET NO. 970595-EG, PETITION FOR AUTHORITY TO IMPLEMENT GOOD CENTS ENERGY LOAN PROGRAM BY GULF POWER COMPANY

AGENDA: 9/09/97 - REGULAR AGENDA - PROPOSED AGENCY ACTION - INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: S:\PSC\EAG\WP\970595.RCM

ATTACHMENT NOT PART OF THE ELECTRONICALLY TRANSMITTED VERSION.

CASE BACKGROUND

The Florida Energy Efficiency and Conservation Act (FEECA), Sections 366.80 - 366.85, Florida Statutes, requires the Commission to adopt goals to reduce and control the growth rates of electric consumption and weather-sensitive peak demand. In Docket No. 930551-EG, the Commission set numeric demand-side management (DSM) goals for Gulf Power Company (Gulf) (Order No. PSC-94-1313-FOF-EG, issued October 25, 1994). Gulf's DSM Plan, designed to meet these goals, was approved by the Commission in Docket No. 941172-EG (Order No. PSC-95-0691-FOF-EI, issued June 9, 1995).

Gulf has an existing Commission-approved loan program known as Gulf Express. This loan has been offered to residential customers so that they could add energy-saving measures and equipment to their homes. Gulf subsidizes the loan by buying down the interest rate. Loan expenses have been recovered by the company through the

Energy Conservation Cost Recovery (ECCR) Clause. However, the program is no longer cost-effective; therefore, Gulf has ceased issuing new Gulf Express loans. Gulf plans to keep the Gulf Express Loan Program open only until all outstanding loans have been repaid.

Because it wishes to continue offering reduced-rate loans for customer installation of conservation measures, Gulf has petitioned the Commission for approval of the Good Cents Energy Loan. This new program offers loans of up to $15,000, with up to a seven-year period for payback, for the installation of up to 18 energy conservation measures. Gulf plans to use a Southern Company subsidiary to provide the loans at lower than market rates. In addition, Gulf will buy down the interest rate by 1%. Gulf's expenses from the proposed loan program would be passed on to ratepayers through the ECCR clause.

While new homes are not eligible for Gulf's proposed loan program, all residential customers with existing homes in Gulf's service territory are eligible to participate. Natural gas heating, in combination with electric air conditioning or heat pumps, is eligible for Gulf's loan program. However, Gulf expects the bulk of its loans to be issued for the following: conversion from natural gas heating to an electric heat pump; conversion from electric strip heating to heat pumps; replacement of an old electric heat pump with a new, more efficient heat pump; geothermal applications; and addition of attic insulation up to R-38.

DISCUSSION OF ISSUES

ISSUE 1: Should the Commission approve Gulf Power Company's petition for approval of its new Good Cents Energy Loan Program, including approval for cost recovery through the Energy Conservation Cost Recovery Clause?

RECOMMENDATION: No. Contrary to Rule 25-17.001, Florida Administrative Code, and FEECA, Gulf's proposed loan program: (1) is forecasted to increase winter peak demand and annual energy consumption while only minimally reducing summer peak demand; (2) does not include any end-use metering to verify estimated demand savings; (3) does not pass the Participants' test or the Total Resource Cost (TRC) test and minimally passes the Rate Impact Measure (RIM) test; and (4) encourages the switch from natural gas heating to electric heating.

STAFF ANALYSIS: When the Commission reviews conservation programs, it considers three criteria:

1. Whether the program advances the policy objectives of Rule 25-17.001, Florida Administrative Code, and FEECA;

2. Whether the program is directly monitorable and yields measurable results; and

3. Whether the program is cost-effective.

Staff has four major concerns with Gulf's proposed Good Cents Energy Loan program: (1) it is expected to increase winter peak demand and annual energy usage, but minimally reduce summer peak demand; (2) it does not include any end-use metering to verify estimated demand and energy impacts; (3) it fails to pass the Participants' test (0.28 benefit-cost ratio) and the Total Resource Cost (TRC) test (0.06), and is marginally cost-effective (1.01) under the Rate Impact Measure (RIM) test; and (4) it does not represent energy conservation, but, rather, electricity competing with natural gas.

1. Winter Demand and Annual Energy Increase / Minimal Summer Demand Reduction

Rule 25-17.001(2), Florida Administrative Code, summarizes the Commission's policy on energy conservation:

> The Florida Energy Efficiency and Conservation Act requires increasing the efficiency of the electric systems of Florida, increasing the conservation of expensive resources, such as petroleum fuels, reducing the growth rate of weather sensitive peak demand, and reducing and controlling the growth rate of kilowatt hour consumption to the extent cost effective. (Emphasis added)

Gulf estimates that the proposed Good Cents Loan Program will reduce summer peak demand by a total of 252 kW (0.252 MW), or 0.42 kW per participant. However, the program is expected to increase annual energy consumption by 168,600 kWh (281 kWh per participant) and winter peak demand by a total of 1164 kW (1.164 MW), or 1.94 kW per participant. Gulf attributes these increases to the high saturation of natural gas heating in its service territory.

There are 18 eligible conservation measures in Gulf's Good Cents Energy Loan program; five of these measures are expected to have the highest level of customer participation. The kW demand, kWh energy, and percent participation estimates for these five measures were combined to arrive at the totals for the loan program. This analysis is summarized in the following table:

CONSERVATION MEASURE	PARTICI-PATION	PER-PARTICIPANT SAVINGS (WEIGHTED AVERAGE)		
		Winter kW	Summer kW	Annual kWh
gas heat to heat pump	55.0%	-2.42	0.17	-744
heat pump to heat pump	33.0%	0.03	0.10	188
strip heat to heat pump	2.0%	0.09	0.01	94
geothermal	10.0%	0.15	0.08	64
SUBTOTAL - FOUR HEATING MEASURES	100.0%	-2.15	0.36	-398
R-38 attic insulation		0.21	0.07	116
TOTAL FOR ALL FIVE MEASURES		-1.94	0.43	-282

Customers who want to install new natural gas heating in combination with electric air conditioning can obtain a loan under

Gulf's proposed Good Cents Energy Loan program. However, switching from natural gas heating to electric heat pumps is expected. The preceding table shows Gulf's expectation that a majority (55%) of all loans for heating, ventilating, and air conditioning (HVAC) replacements will be the conversion from natural gas heating to electric heat pumps. This conversion is the cause of increased winter demand and annual energy consumption for the overall loan program. Increased demand and energy consumption is clearly contrary to the intent of Rule 25-17.001, Florida Administrative Code, and FEECA. Further, the increased winter demand and annual energy increases from natural gas conversion to electric heat pumps offset any savings from other options eligible under the proposed loan program.

2. Program Monitoring

The forecasted demand and energy savings (or increases) for Gulf's Good Cents Energy Loan program are based on engineering estimates. Gulf proposes to analyze billing data to verify the accuracy of these estimates. Gulf also has historical data on the impact of conservation measures installed under the existing Gulf Express loan program. However, without pre- and post-installation measurement data, staff cannot be sure of the accuracy of Gulf's engineering estimates.

Staff is also concerned with the impact of the newer, high-efficiency heat pumps on Gulf's electric grid. These heat pumps contain a scroll compressor, which is efficient with heating and cooling but which may degrade the power factor of a utility distribution system. If a substantial number of utility customers install the newer heat pumps, the utility may have to take corrective steps, with corresponding costs, to improve the power factor of its distribution system. Because Gulf forecasts only 600 participants in its Good Cents Energy Loan program, Gulf expects that the cumulative impact of new heat pump additions through this program on Gulf's distribution system will be negligible, if noticeable at all. The minimal savings forecasted by Gulf for the loan program may be completely negated by the increased costs caused by low power factor.

3. Cost-effectiveness

Gulf's avoided cost is based on a capacity purchase, scheduled to start in 1999, from the Southern Company. In the past, Gulf has

used avoided capacity purchases in lieu of avoided generating units when analyzing the cost-effectiveness of DSM programs. Because Gulf appears to have reasonably calculated the costs associated with a capacity purchase, staff does not believe that Gulf's choice to use this method is a problem.

The cost-effective analysis of Gulf's proposed Good Cents Loan Program, using the RIM, TRC, and Participants' tests, is attached to this recommendation as Appendix I. Gulf's proposed loan program does not pass the Participants' test (0.28 benefit-cost ratio) or the TRC test (0.06). Staff questions how Gulf expects its residential customers to participate in a loan program that fails to pass the Participants' test. Participant costs consist primarily of the cost to buy energy-efficient equipment with the loan. Participant benefits include Gulf's 1% buy-down of the loan, and any perceived value from equipment purchases made with the loan. Since this perceived value is the primary cause for interest in the program, customers who participate in the program could be considered as free riders. Further, while this perceived value cannot be included in any cost-effectiveness analysis, Gulf apparently expects that customers will pay for this value. Gulf forecasts 300 participants in the program's first year (remainder of 1997) and 600 participants in 1998. No new program participants are forecasted after 1998, since the avoided capacity purchase is due to begin in 1999.

Gulf's proposed loan program minimally passes the RIM test, with a 1.01 benefit-cost ratio. Under RIM, Gulf forecasts that the program will not become cost-effective for 11 years on a nominal basis. On a cumulative present worth basis, the program is not cost-effective until year 30, the last year of the study period. The company's RIM analysis shows that Gulf expects to spend $3,142,000 over 30 years, on a cumulative present worth basis, to achieve an expected program benefit of only $35,000 by year 30.

DSM programs that marginally pass the RIM test provide no room for errors in forecasting demand and energy savings, or changes to avoided generation costs. This is clearly the case with Gulf's proposed Good Cents Energy Loan program. With a RIM value of 1.01 and a projected total program benefit of $35,000 over 30 years, Gulf's program is vulnerable to risks such as forecasting errors or changes to avoided generation costs.

4. Natural Gas Competition

Gulf expects its proposed loan program to increase winter peak demand and annual energy consumption. As mentioned previously, the primary reason for this increase is Gulf's projection that a majority (55%) of loan recipients will convert from natural gas heating to electric heat pumps. In large part, this is not energy conservation but, rather, electricity competing with natural gas. This result violates the Commission's policy on fuel neutrality in conservation programs approved for cost recovery.

In summary, Gulf's proposed Good Cents Energy Loan Program does not meet any of the criteria by which the Commission has approved past conservation programs and their cost recovery through the ECCR clause. Therefore, staff recommends that Gulf's request for authorization to implement the proposed Good Cents Energy Loan program be denied by the Commission.

ISSUE 2: Should this docket be closed?

RECOMMENDATION: Yes.

STAFF ANALYSIS: If no person whose substantial interests are affected by the Commission's proposed agency action files a protest within twenty-one days of the issuance of the order, Docket No. 970595-EG should be closed.

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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	-0.42	kW/Cus
(2) Change in Peak kW per Customer at generator	-0.54	kW Gen/Cu
(3) kW Line Loss Percentage	12.60%	
(4) Change in KWh per Customer at generator	303	kWh/Cus/Yr
(5) kWh Line Loss Percentage	7.70%	
(6) Group Line Loss Multiplier	1.0034	
(7) Annual Change in Customer kWh at Meter	281	kWh/Cus/Yr
* (8) Change in Winter kW per Cust at meter	1.94	kW/Cus

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years
(2) Economic Life of Incremental Generation	40	Years
(3) Economic Life of Incremental T&D	30	Years
(4) K-Factor for Generation	1.4436	
(5) K-Factor for T&D	1.4336	
* (6) Switch: Rev Req (0) or Val-of-Def (1)	0	

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	$172.33	$/Cus
(2) Utility Recurring Cost Per Customer	$0.00	$/Cus/Year
(3) Utility Cost Escalation Rate	2.64%	
(4) Customer Equipment Cost	$5,000.00	$/Cus
(5) Customer Equipment Cost Escalation Rate	2.64%	
(6) Customer O&M Cost	($175.00)	$/Cus/Year
(7) Customer O&M Cost Escalation Rate	0.00%	
* (8) Customer Tax Credit Per Installation	$0.00	$/Cus
* (9) Customer Tax Credit Escalation Rate	2.64%	
* (10) Change in Supply Costs	$0.00	$/Cus/Year
* (11) Supply Costs Escalation Rate	2.64%	
* (12) Utility Discount Rate	8.77%	
* (13) Utility AFUDC Rate	10.03%	
* (14) Utility Nonrecurring Rebate/Incentive	$125.00	$/Cus
* (15) Utility Recurring Rebate/Incentive	$0.00	$/Cus/Year
* (16) Utility Rebate/Incentive Escalation Rate	2.64%	

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	1997	
(2) In-Service Year For Incremental Generation	1999	
(3) In-Service Year For Incremental T & D	1998	
(4) Base Year Incremental Generation Cost	$232.00	$/kW
(5) Base Year Incremental Transmission Cost	$58.00	$/kW
(6) Base Year Incremental Distribution Cost	$32.00	$/kW
(7) Gen, Tran, & Dist Cost Escalation Rate	2.14%	
(8) Generator Fixed O & M Cost	$2.78	$/kW/Yr
(9) Generator Fixed O&M Escalation Rate	2.53%	
(10) Transmission Fixed O & M Cost	$0.73	$/kW/Yr
(11) Distribution Fixed O & M Cost	$0.80	$/kW/Yr
(12) T&D Fixed O&M Escalation Rate	1.25%	
(13) Incremental Gen Variable O & M Costs	$0.570	$/kW/Yr
(14) Incre Gen Variable O&M Cost Esc Rate	2.57%	
(15) Incremental Gen Capacity Factor	3.40%	
(16) Incremental Generating Unit Fuel Cost	$0.0356	$/kWh
(17) Incremental Gen Unit Fuel Esc Rate	2.90%	
* (18) Incremental Purchased Capacity Cost	$21.76	$/KW/YR
* (19) Incremental Capacity Cost Esc Rate	2.07%	

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)	$0.0352	$/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)	$3,177	$12,815
NPV Costs ($000s)	$3,142	$45,090
NPV Net Benefits ($000s)	$35	($32,274)
Benefit:Cost Ratio	1.011	0.284

* Supplemental Information Not Specifically Specified in Cost Effectiveness Manual

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

(1) Year	(2) Change in Electric Supply Costs ($000s)	(3) Utility's Program Costs ($000s)	(4) Participants' Program Costs ($000s)	(5) Other Costs ($000s)	(6) Other Benefits ($000s)	(7) Incremental Generation Cap Costs ($000s)	(8) Incremental T&D Cap Costs ($000s)	(9) Incremental Prog Induced Fuel Costs ($000s)	(10) Total Costs ($000s)	(11) Total Benefits ($000s)	(12) Total Net Benefits ($000s)	(13) Cumulative Discounted Net Benefits ($000s)
1997	$0	$103	$2,895	$0	$0	($10)	$0	$3	$3,001	$10	($2,992)	($2,992)
1998	$0	$106	$2,859	$0	$0	($19)	($13)	$6	$2,981	$33	($2,948)	($5,703)
1999	$0	$109	$2,846	$0	$0	($30)	($19)	$10	$2,964	$49	($2,915)	($8,167)
2000	$0	$112	$2,824	$0	$0	($40)	($25)	$14	$2,950	$65	($2,885)	($10,400)
2001	$0	$115	$2,805	$0	$0	($52)	($29)	$18	$2,938	$81	($2,858)	($12,449)
2002	$0	$118	$2,788	$0	$0	($64)	($34)	$22	$2,928	$98	($2,830)	($14,306)
2003	$0	$121	$2,773	$0	$0	($77)	($38)	$26	$2,922	$115	($2,808)	($16,003)
2004	$0	$124	$2,761	$0	$0	($90)	($42)	$34	$2,919	$132	($2,787)	($17,550)
2005	$0	$127	$2,751	$0	$0	($104)	($45)	$38	$2,918	$149	($2,767)	($18,963)
2006	$0	$131	$2,743	$0	$0	($118)	($48)	$42	$2,916	$166	($2,750)	($20,254)
2007	$0	$134	$2,738	$0	$0	($133)	($50)	$48	$2,919	$183	($2,736)	($21,434)
2008	$0	$138	$2,736	$0	$0	($150)	($52)	$54	$2,928	$202	($2,726)	($22,515)
2009	$0	$141	$2,737	$0	$0	($167)	($53)	$63	$2,941	$220	($2,721)	($23,506)
2010	$0	$145	$2,740	$0	$0	($185)	($55)	$72	$2,958	$240	($2,718)	($24,416)
2011	$0	$149	$2,746	$0	$0	($204)	($55)	$77	$2,972	$259	($2,713)	($25,250)
2012	$0	$153	$2,755	$0	$0	($223)	($55)	$81	$2,989	$278	($2,711)	($26,024)
2013	$0	$157	$2,768	$0	$0	($242)	($56)	$81	$3,005	$298	($2,707)	($26,728)
2014	$0	$161	$2,783	$0	$0	($262)	($57)	$83	$3,027	$319	($2,708)	($27,376)
2015	$0	$165	$2,801	$0	$0	($284)	($58)	$92	$3,058	$342	($2,716)	($27,976)
2016	$0	$170	$2,823	$0	$0	($303)	($59)	$99	$3,091	$363	($2,728)	($28,529)
2017	$0	$174	$2,848	$0	$0	($328)	($60)	$107	$3,129	$388	($2,741)	($29,036)
2018	$0	$179	$2,876	$0	$0	($354)	($61)	$115	$3,170	$415	($2,754)	($29,510)
2019	$0	$183	$2,908	$0	$0	($383)	($61)	$123	$3,215	$444	($2,771)	($29,948)
2020	$0	$188	$2,944	$0	$0	($408)	($62)	$132	$3,264	$470	($2,794)	($30,350)
2021	$0	$193	$2,983	$0	$0	($437)	($62)	$141	$3,317	$498	($2,818)	($30,725)
2022	$0	$198	$3,028	$0	$0	($467)	($62)	$150	$3,375	$529	($2,846)	($31,073)
2023	$0	$204	$3,073	$0	$0	($498)	($62)	$160	$3,437	$560	($2,877)	($31,397)
2024	$0	$209	$3,124	$0	$0	($532)	($61)	$171	$3,504	$593	($2,911)	($31,[illegible])
2025	$0	$215	$3,180	$0	$0	($566)	($60)	$181	$3,575	$627	($2,948)	($31,978)
2026	$0	$220	$3,239	$0	$0	($602)	($60)	$192	$3,652	$662	($2,990)	($32,230)
Nominal		$4,643	$85,883			($7,336)	($1,453)	$2,435	$92,961	$8,789	($84,172)	
NPV		$1,513	$32,180			($1,559)	($428)	$532	$34,225	$1,988	($32,230)	

Discount Rate = 8.77%
Benefit/Cost Ratio = 0.06

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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)
1997	$3,000	($105)	$0	$0	$10	$0	$75	$3,010	$180	($2,830)	($2,830)
1998	$3,079	($210)	$0	$0	$18	$0	$77	$3,089	$267	($2,811)	($5,414)
1999	$3,161	($315)	$0	$0	$27	$0	$79	$3,188	$394	($2,794)	($7,775)
2000	$3,244	($420)	$0	$0	$36	$0	$81	$3,280	$501	($2,779)	($9,934)
2001	$3,330	($525)	$0	$0	$45	$0	$83	$3,375	$608	($2,767)	($11,911)
2002	$3,418	($630)	$0	$0	$55	$0	$85	$3,473	$715	($2,757)	($13,722)
2003	$3,508	($735)	$0	$0	$64	$0	$88	$3,572	$823	($2,750)	($15,383)
2004	$3,601	($840)	$0	$0	$74	$0	$90	$3,675	$930	($2,745)	($16,907)
2005	$3,696	($945)	$0	$0	$83	$0	$92	$3,778	$1,037	($2,741)	($18,308)
2006	$3,793	($1,050)	$0	$0	$94	$0	$95	$3,887	$1,145	($2,743)	($19,593)
2007	$3,893	($1,155)	$0	$0	$106	$0	$97	$3,989	$1,252	($2,747)	($20,778)
2008	$3,996	($1,260)	$0	$0	$117	$0	$100	$4,113	$1,360	($2,753)	($21,870)
2009	$4,102	($1,365)	$0	$0	$127	$0	$103	$4,229	$1,468	($2,761)	($22,877)
2010	$4,210	($1,470)	$0	$0	$138	$0	$105	$4,348	$1,575	($2,773)	($23,807)
2011	$4,321	($1,575)	$0	$0	$149	$0	$108	$4,470	$1,683	($2,787)	($24,669)
2012	$4,435	($1,680)	$0	$0	$159	$0	$111	$4,595	$1,791	($2,804)	($25,481)
2013	$4,553	($1,785)	$0	$0	$173	$0	$114	$4,725	$1,899	($2,826)	($26,197)
2014	$4,673	($1,890)	$0	$0	$186	$0	$117	$4,858	$2,007	($2,852)	($26,860)
2015	$4,796	($1,995)	$0	$0	$199	$0	$120	$4,996	$2,115	($2,881)	($27,515)
2016	$4,923	($2,100)	$0	$0	$219	$0	$123	$5,142	$2,223	($2,918)	($28,108)
2017	$5,053	($2,205)	$0	$0	$244	$0	$126	$5,297	$2,331	($2,965)	($28,658)
2018	$5,188	($2,310)	$0	$0	$264	$0	$130	$5,450	$2,440	($3,010)	($29,173)
2019	$5,323	($2,415)	$0	$0	$283	$0	$133	$5,606	$2,548	($3,059)	($29,654)
2020	$5,464	($2,520)	$0	$0	$304	$0	$137	$5,767	$2,657	($3,111)	($30,104)
2021	$5,608	($2,625)	$0	$0	$325	$0	$140	$5,933	$2,765	($3,168)	($30,526)
2022	$5,756	($2,730)	$0	$0	$346	$0	$144	$6,103	$2,874	($3,229)	($30,920)
2023	$5,908	($2,835)	$0	$0	$369	$0	$148	$6,278	$2,983	($3,295)	($31,291)
2024	$6,064	($2,940)	$0	$0	$393	$0	$152	$6,457	$3,092	($3,366)	($31,639)
2025	$6,225	($3,045)	$0	$0	$418	$0	$156	$6,642	$3,201	($3,442)	($31,968)
2026	$6,389	($3,150)	$0	$0	$444	$0	$160	$6,833	$3,310	($3,523)	($32,274)
Nominal	$134,708	($49,825)			$5,468		$3,368	$140,176	$52,193	($87,983)	
NPV	$43,899	($11,719)			$1,191		$1,097	$45,090	$12,816	($32,274)	
Discount Rate =		8.77%									
Benefit/Cost Ratio =		0.28									

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Ratepayer's 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)
2007	$0	$109	$75	$10	($10)	$0	$3	$0	$0	$181	$19	($162)	($162)
2008	$0	$108	$77	$18	($19)	($13)	$8	$0	$0	$180	$51	($130)	($288)
2009	$0	$109	$79	$27	($30)	($18)	$10	$0	$0	$186	$76	($121)	($382)
2010	$0	$112	$81	$38	($40)	($25)	$14	$0	$0	$207	$101	($108)	($474)
2011	$0	$115	$83	$45	($52)	($29)	$18	$0	$0	$216	$127	($89)	($538)
2012	$0	$118	$85	$55	($64)	($34)	$22	$0	$0	$226	$153	($72)	($589)
2013	$0	$121	$88	$64	($77)	($38)	$28	$0	$0	$237	$180	($57)	($620)
2014	$0	$124	$90	$74	($90)	($42)	$34	$0	$0	$248	$208	($39)	($644)
2015	$0	$127	$92	$83	($104)	($45)	$39	$0	$0	$258	$232	($26)	($657)
2016	$0	$131	$95	$94	($118)	($48)	$42	$0	$0	$268	$260	($9)	($661)
2017	$0	$134	$97	$106	($133)	($50)	$46	$0	$0	$278	$289	$11	($656)
2018	$0	$138	$100	$117	($150)	($52)	$54	$0	$0	$292	$319	$27	($645)
2019	$0	$141	$103	$127	($167)	($53)	$63	$0	$0	$307	$348	$40	($630)
2010	$0	$145	$105	$138	($185)	($55)	$72	$0	$0	$323	$377	$55	($612)
2011	$0	$149	$108	$149	($204)	($55)	$77	$0	$0	$334	$408	$74	($588)
2012	$0	$153	$111	$159	($223)	($55)	$81	$0	$0	$344	$437	$93	($563)
2013	$0	$157	$114	$173	($242)	($56)	$81	$0	$0	$352	$470	$118	($532)
2014	$0	$161	$117	$188	($262)	($57)	$83	$0	$0	$361	$505	$144	($496)
2015	$0	$165	$120	$199	($284)	($58)	$92	$0	$0	$377	$541	$164	($461)
2016	$0	$170	$123	$219	($303)	($59)	$99	$0	$0	$392	$581	$190	($423)
2017	$0	$174	$126	$244	($328)	($60)	$107	$0	$0	$407	$632	$225	($381)
2018	$0	$179	$130	$264	($354)	($61)	$115	$0	$0	$423	$679	$256	($337)
2019	$0	$183	$133	$283	($383)	($61)	$123	$0	$0	$439	$727	$287	($292)
2020	$0	$188	$137	$304	($408)	($62)	$132	$0	$0	$457	$774	$317	($246)
2021	$0	$193	$140	$325	($437)	($62)	$141	$0	$0	$474	$824	$349	($200)
2022	$0	$198	$144	$346	($467)	($62)	$150	$0	$0	$493	$876	$383	($153)
2023	$0	$204	$148	$369	($499)	($62)	$160	$0	$0	$512	$930	$418	($108)
2024	$0	$209	$152	$393	($532)	($61)	$171	$0	$0	$531	$986	$455	($59)
2025	$0	$215	$156	$418	($566)	($60)	$181	$0	$0	$551	$1,045	$493	($12)
2026	$0	$220	$160	$444	($602)	($60)	$192	$0	$0	$572	$1,108	$533	$35
Nominal		$4,643	$3,308	$5,468	($7,336)	($1,453)	$2,435			$10,446	$14,257	$3,811	
NPV		$1,513	$1,097	$1,191	($1,559)	($428)	$532			$3,142	$3,177	$35	
	Discount Rate =	8.77%											
	Benefit/Cost Ratio =	1.01											

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Appendix I
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