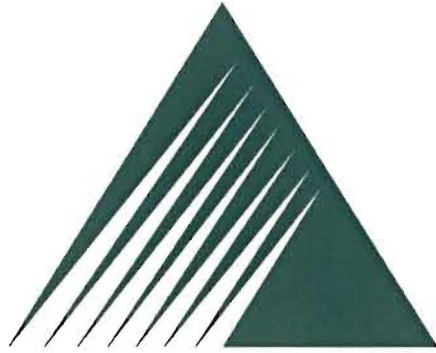


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FLORIDA PUBLIC
UTILITIES

2005 Demand-Side Management Plan

June 1, 2004

DOCUMENT NUMBER-DATE

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FPSC-COMMISSION CLERK

Introduction

The following report contains Florida Public Utilities Company's 2005 Demand-Side Management Plan. The report contains three (3) sections as described below.

SECTION 1: Section 1 contains an Executive Summary of the programs Florida Public Utilities Company proposes to meet the numerical demand and energy savings goals requested by the Company in this docket. Tables are also included which summarize the demand and energy savings by year for the residential and commercial/industrial markets.

SECTION 2: The actual Demand-Side Management Plan is contained in Section 2. The section is arranged by market — residential and commercial/industrial. Each program proposed for numeric goal achievement contains a detailed description and, when appropriate, a cost-effectiveness analysis.

SECTION 3: Florida Public Utilities Company's programs that are aimed at research and development, affordable housing builders and providers and the low-income educational program are contained in Section 3. The Conservation Demonstration and Development Program will pursue research to promote energy efficiency and conservation. This program will supplement and complement the other demand-side management programs offered by Florida Public Utilities Company. The low-income educational program continues Florida Public Utilities Company's history of providing energy conservation and efficiency information to all customers without discrimination. Florida Public Utilities Company will also continue the initiative introduced in the 2001 DSM plan to target affordable housing builders and providers — informing them of the economic benefits of energy conservation and how to incorporate energy efficiency into their building practices.

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Section 1 - Executive Summary

Florida Public Utilities Company's 2005 Demand-Side Management Plan continues the Company's history of developing and providing programs that focus on delivering customer value on energy purchases. Since the implementation of the GoodCents Home Program, Florida Public Utilities Company has been active in promoting and educating its customers on the benefits and rewards of energy efficiency. The GoodCents Home Program has not only been successful throughout Florida Public Utilities Company's service areas but has been adopted by 270 utilities throughout the United States, providing clear evidence that selling efficiency to consumers can be done successfully.

The 2005 Demand-Side Management Plan provides a portfolio of programs aimed at all segments of the marketplace. The proposed programs and related goals are aggressive and will involve all of the Company's operations. The programs will use all channels for customer contact: personal communications, advertising, and civic involvement. The Internet is also used to inform, educate, promote, and deliver several of the demand side programs.

The 2005 Demand-Side Management Plan contains existing programs, enhancements to current offerings, and some new initiatives. The GoodCents Home Program will continue as the Company's centerpiece program in the residential sector. That program is complemented with the Energy Star Home Program. GoodCents signed a Memorandum of Understanding with the Department of Energy (DOE) and the Environmental Protection Agency (EPA) enabling the co-certification of GoodCents and Energy Star homes. This agreement provided Florida Public Utilities Company the opportunity to offer the Energy Star Home Program to our builders and customers and associate the performance of GoodCents homes with the nationally recognized Energy Star efficiency label.

Florida Public Utilities Company has provided customers benefits through energy conservation educational programs for many years. However, low-income customers are less likely to participate in particular programs. The goal of the low-income educational program is to increase energy efficiency awareness and the benefits of energy conservation for this targeted group. One of the most effective means of educating and communicating the value of energy conservation is through the GoodCents Energy Survey. The GoodCents Energy Survey focuses on increasing awareness and understanding of factors that influence energy purchases (e.g., the home's thermal envelope, energy-intensive equipment, and the household's lifestyle). By working with local low-income housing agencies, Florida Public Utilities Company offers educational programs to low-income customers, thereby broadening the dissemination of this important information. Florida Public Utilities Company plans to increase its GoodCents Energy Survey participation among low-income families.

Florida Public Utilities Company will continue to identify the affordable housing builders within the service area and encourage them to attend education seminars and workshops related to energy efficient construction, retrofit programs, and financing programs — inviting them to participate in the GoodCents Home Program. Florida Public Utilities Company will work with local organizations to offer a minimum of two seminars and/or workshops per year.

A summary of the goals by market (residential and commercial/industrial) is provided in the following attached tables and graphs. These show the numeric goals that Florida Public Utilities Company plans to achieve for the 10-year period of 2005 through 2014.

2005 Demand-Side Management Plan
June 1, 2004



Executive Summary
 Attachment A
 Page 1 of 10

Total Savings Across All Programs and Classes

Year	Summer Peak MW Demand Reduction	Winter Peak MW Demand Reduction	Annual Energy Reduction (gWh)
2005	0.28	0.25	0.59
2006	0.55	0.49	1.18
2007	0.83	0.74	1.77
2008	1.13	1.03	2.41
2009	1.43	1.35	3.08
2010	1.76	1.72	3.80
2011	2.11	2.12	4.55
2012	2.47	2.58	5.35
2013	2.86	3.08	6.22
2014	3.28	3.63	7.14

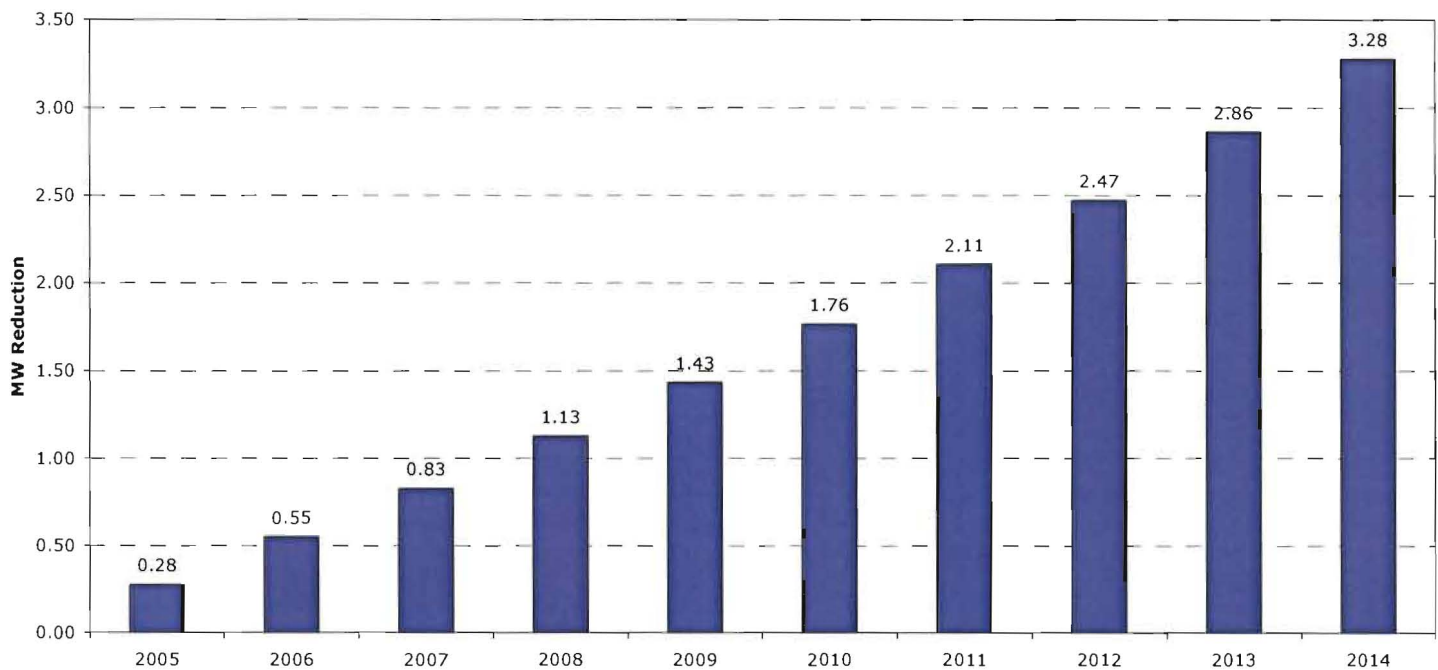
Residential Class Programs

Year	Summer Peak MW Demand Reduction	Winter Peak MW Demand Reduction	Annual Energy Reduction (gWh)
2005	0.10	0.14	0.17
2006	0.20	0.28	0.34
2007	0.29	0.42	0.52
2008	0.40	0.59	0.71
2009	0.51	0.79	0.93
2010	0.63	1.03	1.17
2011	0.76	1.31	1.44
2012	0.90	1.62	1.74
2013	1.05	1.98	2.06
2014	1.21	2.36	2.40

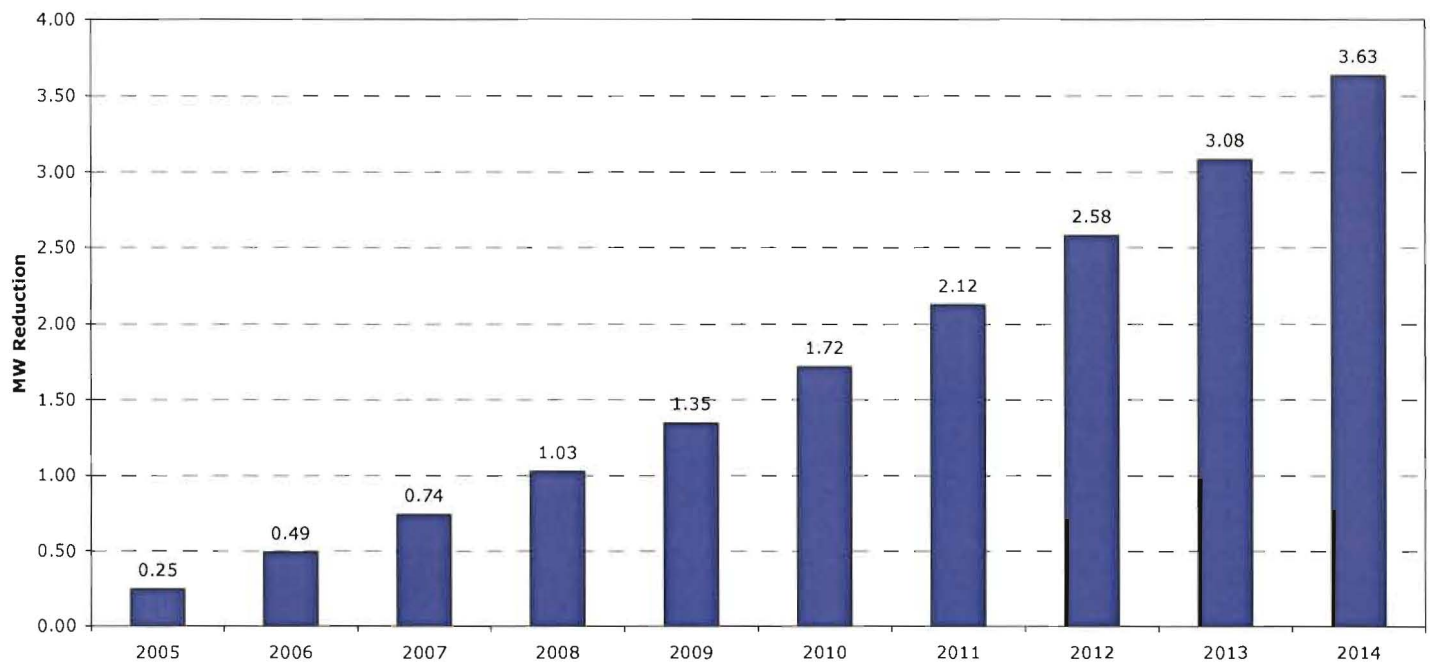
Commercial & Industrial Class Programs

Year	Summer Peak MW Demand Reduction	Winter Peak MW Demand Reduction	Annual Energy Reduction (gWh)
2005	0.18	0.11	0.42
2006	0.36	0.21	0.83
2007	0.53	0.32	1.25
2008	0.73	0.44	1.70
2009	0.92	0.55	2.15
2010	1.13	0.68	2.63
2011	1.34	0.81	3.11
2012	1.57	0.95	3.62
2013	1.81	1.11	4.16
2014	2.06	1.27	4.73

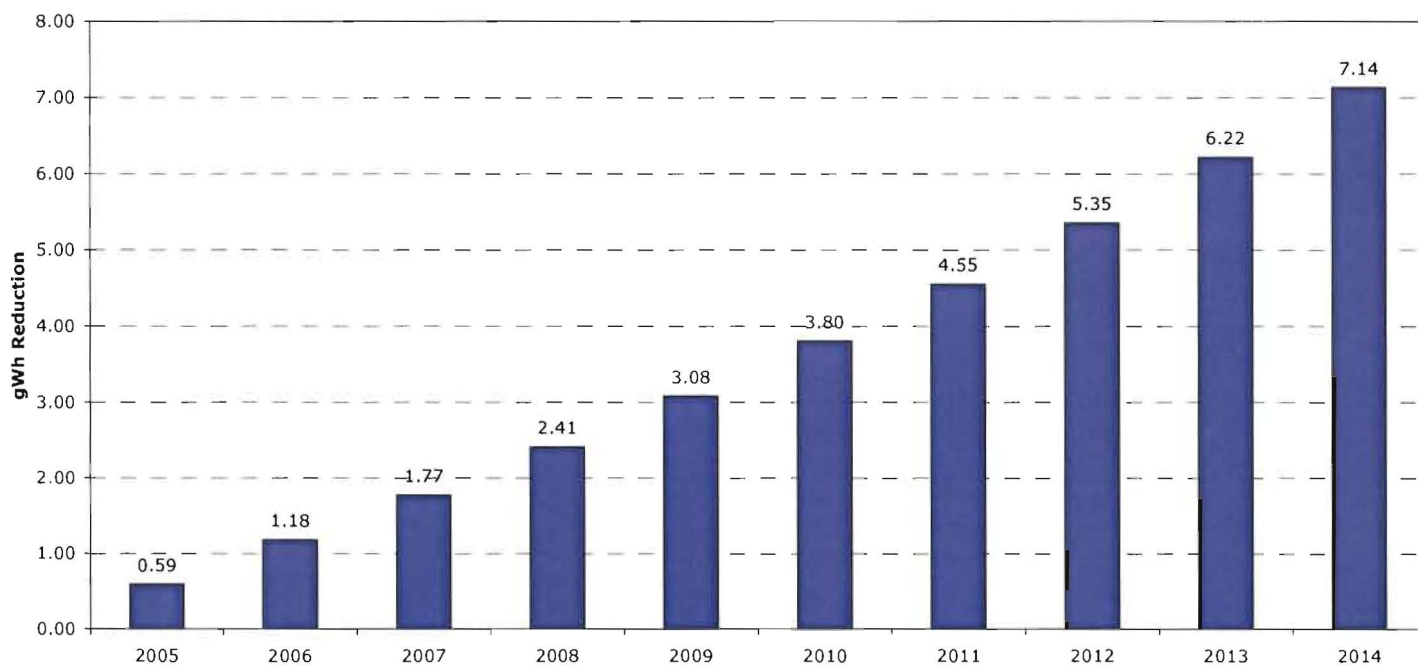
Florida Public Utilities Company - Total All Markets
Summer MW Reduction - 2005 DSM Plan Goals



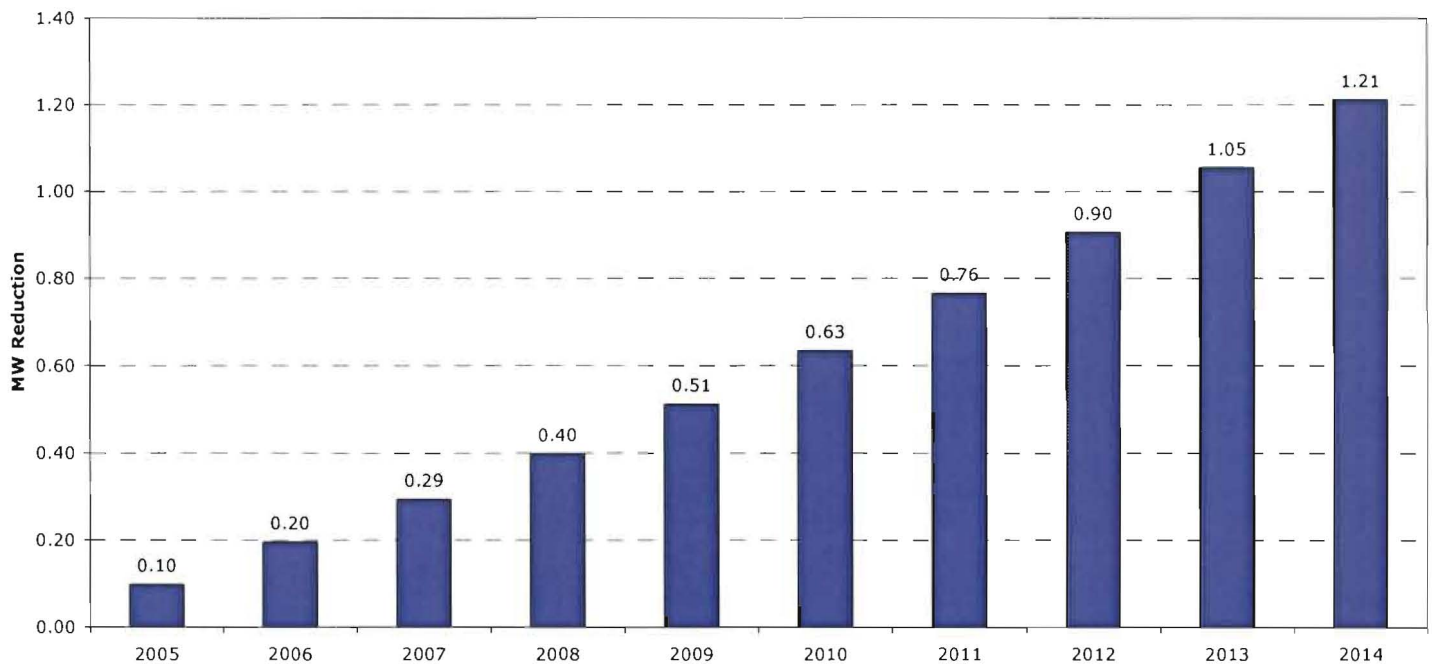
Florida Public Utilities Company - Total All Markets
Winter MW Reduction - 2005 DSM Plan Goals



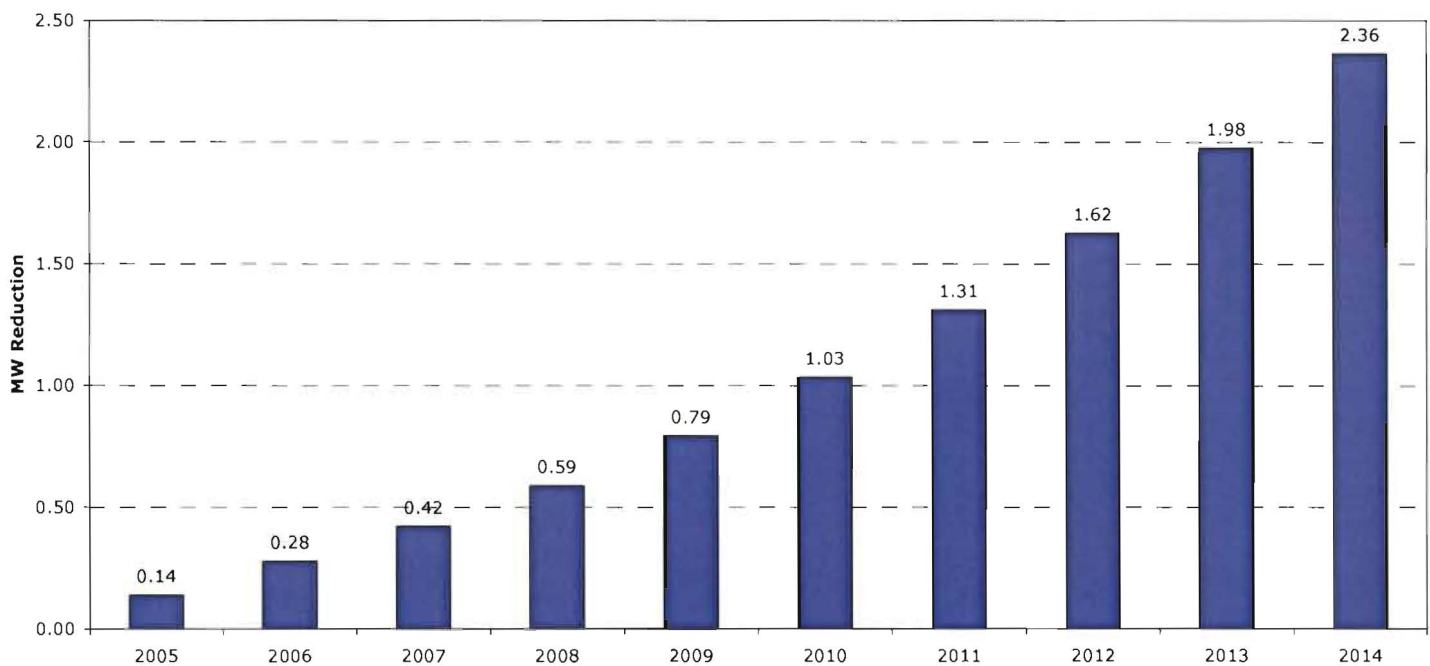
Florida Public Utilities Company - Total All Markets
Total gWh Reduction - 2005 DSM Plan Goals



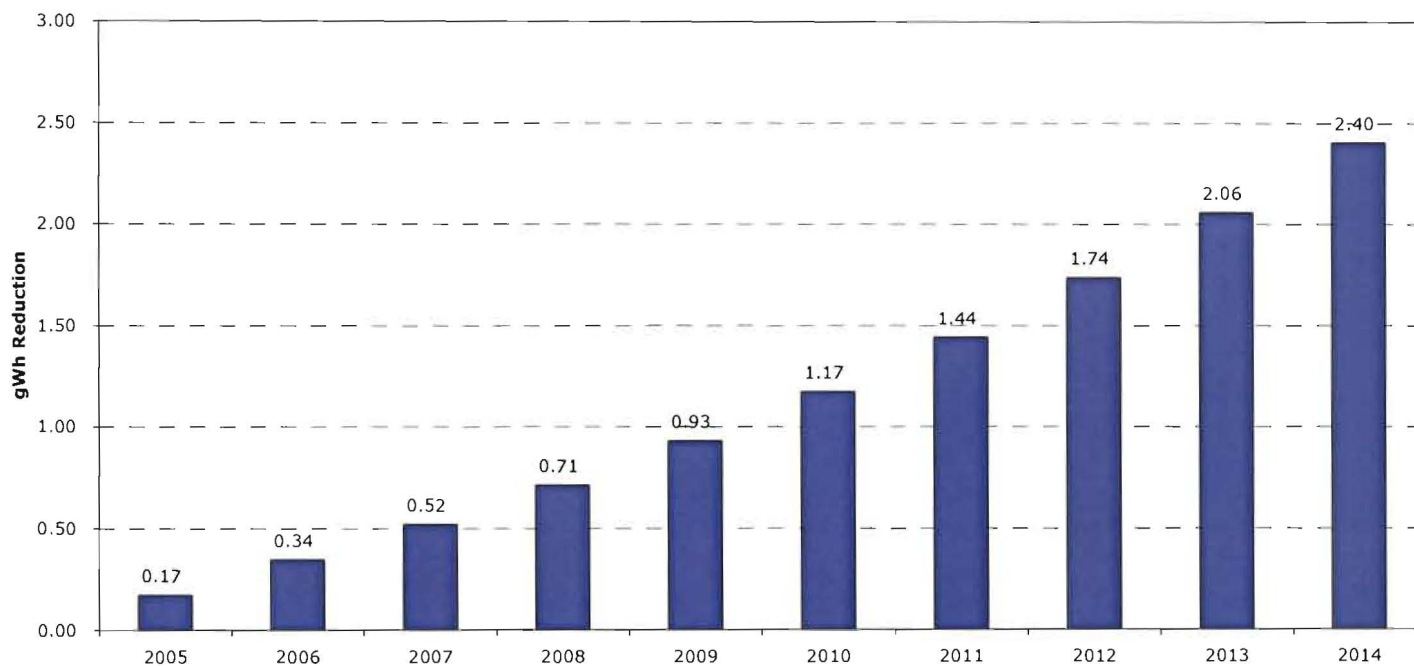
Florida Public Utilities Company - Residential Market
Summer MW Reduction - 2005 DSM Plan Goals



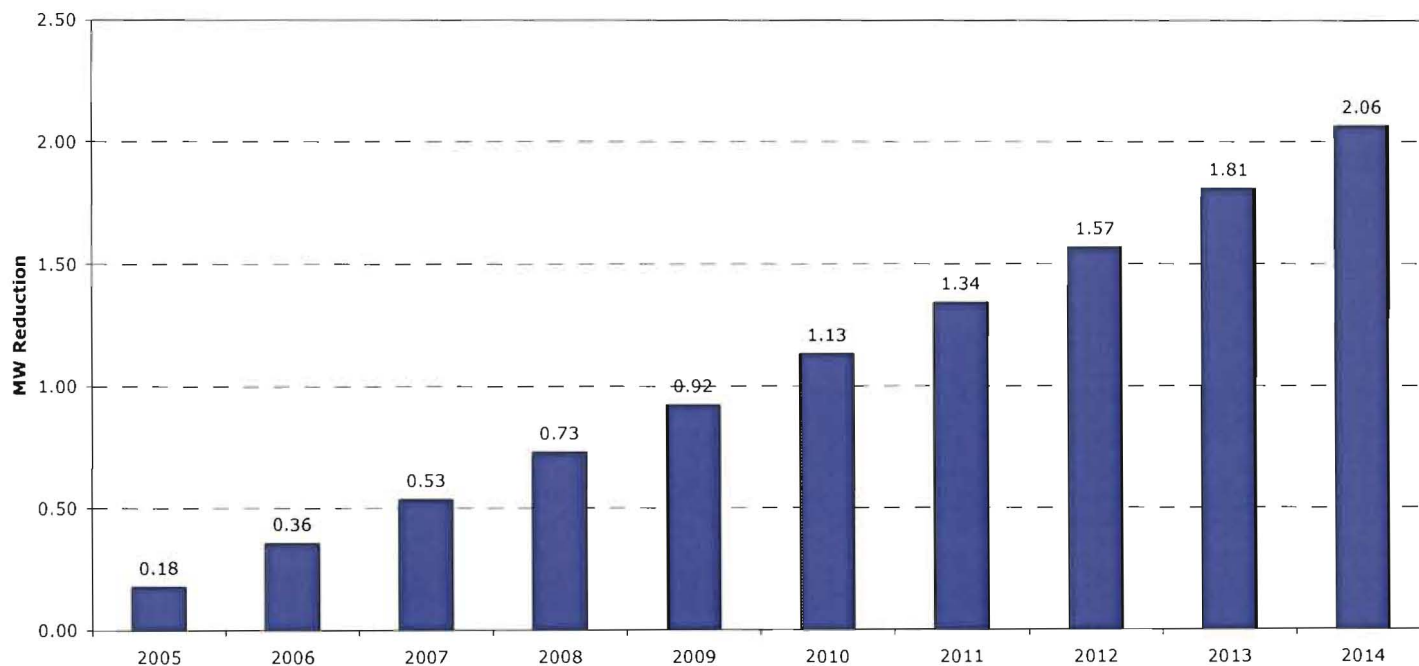
Florida Public Utilities Company - Residential Market
Winter MW Reduction - 2005 DSM Plan Goals



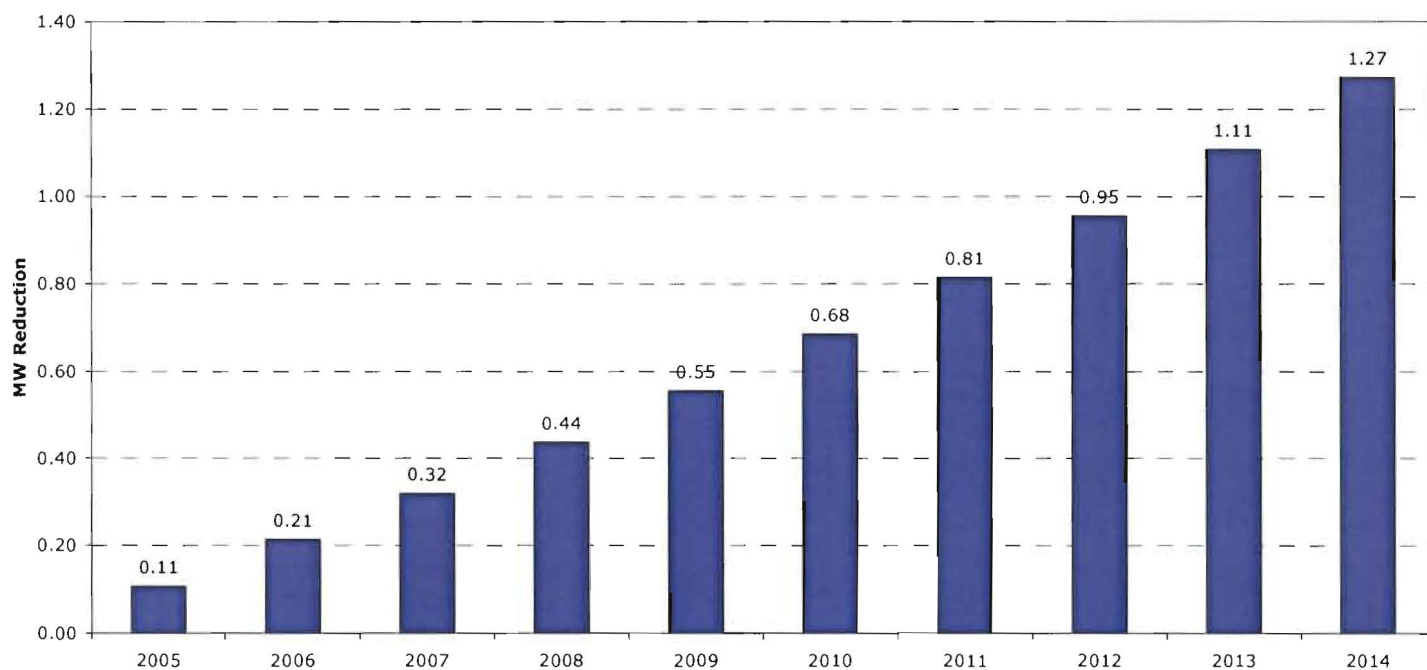
Florida Public Utilities Company - Residential Market
Total gWh Reduction - 2005 DSM Plan Goals



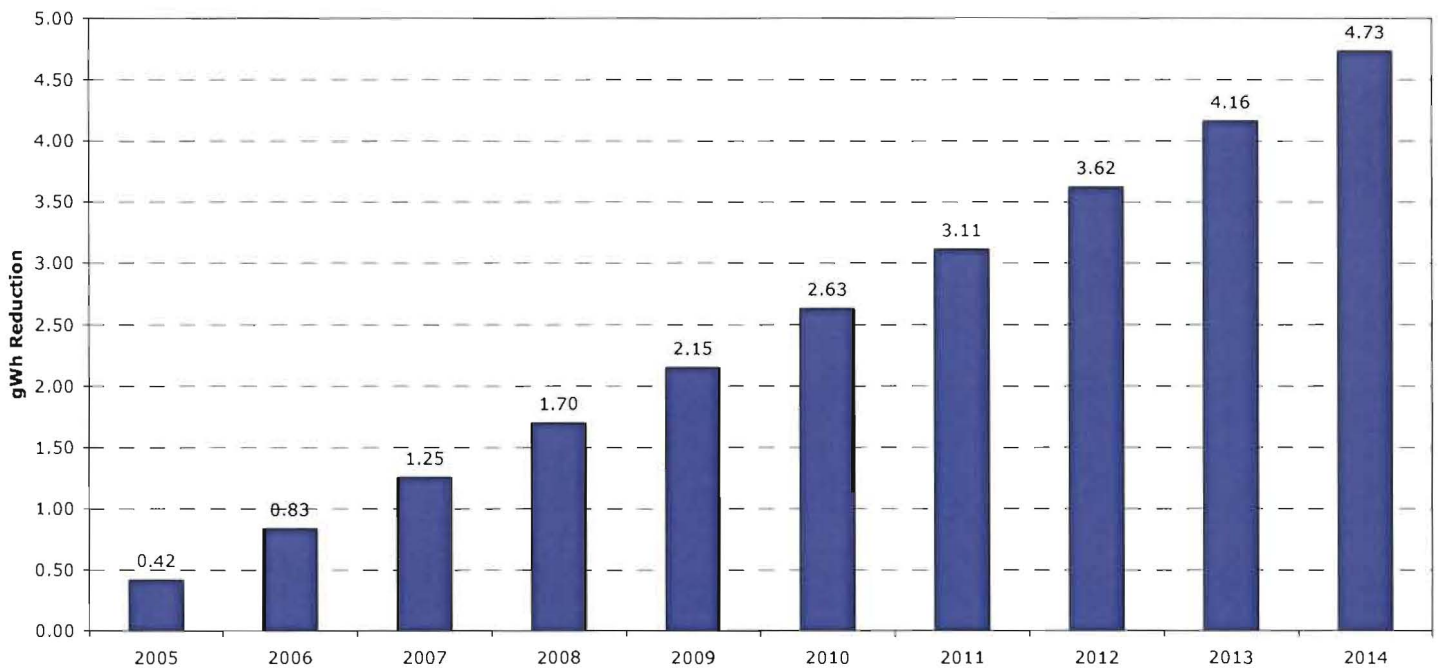
Florida Public Utilities Company - Commercial Market
Summer MW Reduction - 2005 DSM Plan Goals



Florida Public Utilities Company - Commercial Market
Winter MW Reduction - 2005 DSM Plan Goals



Florida Public Utilities Company - Commercial Market
Total gWh Reduction - 2005 DSM Plan Goals



Section 2 - Residential Programs

Residential Geothermal Heat Pump Program

► Program Description

The objective of the Residential Geothermal Heat Pump Program is to reduce the demand and energy requirements of new and existing residential customers through the promotion and installation of advanced and emerging geothermal systems. Due to the long life of space conditioning equipment, the choices made over the next decade regarding space conditioning equipment will have important economic and environmental ramifications lasting well into this century. Geothermal heat pumps provide significant benefits to participating customers in the form of reduced operating costs and increased comfort levels and are superior to other available heating and cooling technologies with respect to source efficiency and environmental impacts. Florida Public Utilities Company's Geothermal Heat Pump Program is designed to overcome existing market barriers, specifically lack of consumer awareness, knowledge and acceptance of this technology. This program will promote efficiency levels well above current market conditions. Specifically, the program will promote units having an Energy Efficiency Ratio (EER) of 13.0 or higher.

According to the Department of Energy (DOE), geothermal technology is the most energy-efficient and environmentally clean space-conditioning system available today. Additionally, a recent DOE study indicates that geothermal systems have the lowest life-cycle cost of any HVAC system today.

The Environmental Protection Agency (EPA) in a 1993 report titled *Space Conditioning: The Next Frontier* stated that advanced residential space conditioning equipment can save consumers money, significantly reduce emissions, and can be highly cost-effective for utility conservation programs. In this report, EPA explored advanced alternative space conditioning technologies and the opportunities each provides for cost-effective energy savings and pollution prevention. EPA

compared the performance and cost of emerging high-efficiency space conditioning equipment with equipment already on the market (i.e., high-efficiency air source heat pump, emerging ground source heat pump, emerging gas-fired heat pump, advanced gas furnace/high efficient A/C, etc.). All comparisons were based on source energy performance taking into account losses associated with all stages of energy use, i.e., energy production, transmission, and distribution.

A summary of the major findings included:

- The emerging ground source heat pump had the highest source heating season performance factor (HSPF) in all locations.
- The emerging ground source heat pump also had the highest cooling HSPF in all locations, followed by the advanced ground source heat pump.
- The emerging and advanced ground source heat pump systems were highly cost-effective as replacement units when compared to all other systems.

The Department of Energy's Office of Geothermal Technologies seeks to increase annual installations of geothermal heat pumps to about 400,000 by 2005. It has a goal of reaching a cumulative number of installed geothermal heat pumps equal to 2 million by that same year. Reaching this goal will mean saving consumers over \$400 million per year on their energy bills and U.S. greenhouse gas emissions will be reduced by over 1 million metric tons of carbon per year.

Florida Public Utilities Company intends to do its share to contribute to this goal by continuing this program over a sustained period to educate consumers on geothermal technology and raise awareness about the availability, affordability, and improved customer satisfaction associated with these units. This commitment is necessary to foster a stable market for this promising technology. Not only will this increase customer and trade ally confidence, it will serve to encourage competition within this technology market and reduce the impact of the higher initial cost.

► **Participation Standards**

The Residential Geothermal Heat Pump Program will provide Florida Public Utilities Company's residential customers an incentive to install advanced residential space conditioning technologies — specifically, geothermal HVAC systems. Florida Public Utilities Company will promote these systems by providing:

- Guaranteed heating and cooling operating costs to customers installing geothermal heat pumps in single family homes
- \$500 rebate for multifamily projects
- Economic analyses and comparisons
- Participation in field days and demonstration projects

Participation standards include:

- All new or existing single-family and multifamily dwellings served by Florida Public Utilities Company are eligible for the program. A single-family dwelling is defined as a unit occupied by one family or household — this includes single-family detached or duplex units. Multifamily is defined as three or more units attached within a single structure.
- All participants must be willing to have an existing home energy survey or new home plan review completed to address proper HVAC sizing, proper installation, and other conservation measures.
- To qualify for the guaranteed heating and cooling cost or the multifamily incentive, the geothermal heat pump must meet the minimum efficiency of 13.0 EER at 90° entering water temperature (85° if 90° data is not published) and water flow of 3.0 gallons per minute per ton.
- The incentive will be issued for only one 13.0 EER geothermal unit per dwelling unit. It is not based on the unit size (ex: 12,000 Btu/h or 36,000 Btu/h).
- After verification and inspection by a Florida Public Utilities Company Energy Consultant, each participant will be paid per dwelling unit in one single payment.

To qualify for guaranteed heating and cooling costs, the closed loop geothermal installation must meet specific installation guidelines. A Florida Public Utilities Company Energy Consultant will perform duct diagnostics during the home construction process or at an existing home before and after the equipment installation as is necessary to assure that installation guidelines are met.

The equipment contractor or electrician will set the electrical meter and meter enclosure, provided by Florida Public Utilities Company, in close proximity to the geothermal unit.

Estimating heating and cooling costs, a first step, determines the guaranteed amount. This is accomplished by using the Residential Building Energy Program (RBEP) to perform an energy calculation for the home using performance data for the geothermal unit to be installed and comfort conditions of 72°F in the winter and 75°F in the summer. The annual heating and cooling kWh times 7.0 cents will give the approximate annual electricity cost. However, the guarantee will actually be based on kWh use.

Florida Public Utilities Company personnel must read the electric meter at the time of owner occupancy to assure accuracy — the unit could have been used during construction for heating/cooling or, in some cases, drying. One year from date of original meter reading, a Florida Public Utilities Company representative will read the meter to determine actual kWh usage during the first year. At the end of the second year, a Florida Public Utilities Company representative will read the meter to determine actual kWh usage during the second year. If the actual kWh for either of the two years exceeds the warranted usage, documentation of the warranted and actual usage will be forwarded to Florida Public Utilities Company's Corporate Office Marketing for customer reimbursement. A copy of the geothermal heat pump heating and cooling cost guarantee is provided as Attachment A.

Florida Public Utilities Company reserves the right to weather normalize the original estimate of the guaranteed amount if the actual combined heating and cooling degree hours exceed typical meteorological year (TMY) degree hours by 10% or more.

► **Benefits and Costs**

All kW and kWh reductions are relative to a minimum-code base unit of 10.0 SEER. The minimum summer kW reduction projected is 1.2 kW for existing home construction to 1.7 kW for new home construction. The average summer kW reduction is 1.45 for all homes. The annual kWh reductions range from 1,183 for existing homes to 2,841 for new home construction with an average annual net reduction of 2,012 kWh. The kW and kWh savings are measured at the meter.

Calculations for kW and kWh savings are derived from the Residential Building Energy Program (RBEP) computer simulations. Inputs are based on Gulf Power's 1996 and 1997 averages for new home and existing home geothermal installations. The computations include only the effect of equipment efficiency alterations, not Btu/h capacity or thermal package changes. Greater savings in kW and kWh will be realized when thermal packages are also improved.

► **Monitoring and Evaluation**

Florida Public Utilities Company will validate engineering analyses of energy and demand savings with billing data and by metering customer equipment. Reasons for program participation and nonparticipation will be assessed through interviews conducted with program participants, dealers and customers who chose not to participate. Depending upon the level of participation, surveys may be conducted among customers with the geothermal heat pumps and those having other systems to determine customer satisfaction with this technology.

► **Cost-Effectiveness**

Not applicable (since program is not goal-contributory).

2005 Demand-Side Management Plan
June 1, 2004



Residential Geothermal Heat Pump Program
Attachment A
Page 1 of 3

**GEOHERMAL HEAT PUMP
HEATING AND COOLING COST GUARANTEE**

Homeowner Name: _____
Address: _____
City, State, Zip: _____
Phone Number: _____
Date of Commencement: _____
Warranted Heating and Cooling Cost: _____

Florida Public Utilities Company, along with the Geothermal Heat Pump Installing Contractor and the Geothermal Loop Installer, certify that the geothermal closed loop heat pump(s) installed at the following location has met the installation guidelines necessary to qualify for a guarantee of the maximum energy use required to operate the geothermal system under normal operating conditions and the following limitations during two consecutive one-year periods commencing at the date as noted above.

Meter reading (submeter)
Beginning: _____
Meter reading (submeter)
End of year one: _____
Meter reading (submeter)
End of year two: _____
Warranted usage kWh
Annual: _____
Actual kWh
Year one: _____
Actual kWh
Year two: _____

Florida Public Utilities Company warrants to the homeowner named above that the energy required to operate the geothermal heat pump(s) installed at the listed address will not exceed the Warranted Usage kilowatt-hours (kWh).

Heating and cooling Warranted Usage kWh were calculated by use of the Residential Building Energy Program (RBE). The estimated operating cost of this Warranted Usage kWh is derived by multiplying the kWh times 7 cents.

Florida Public Utilities Company reserves the right to adjust the warranted usage kWh by weather normalization if the combined heating and cooling degree hours exceed Typical Meteorological Year (TMY) degree hours by 10% or more.

Should the Actual Usage kWh exceed the Warranted Usage kWh in any one-year period, Florida Public Utilities Company will

reimburse the homeowner for 100 percent of the difference according to the following formula:

$$\begin{aligned} & \text{Meter reading (submeter) end of period minus} \\ & \text{beginning meter reading (submeter)} = \\ & \text{Actual Usage for heating and cooling.} \\ & \text{Actual Usage for heating and cooling minus} \\ & \text{Warranted Usage (may be weather adjusted) times} \\ & \text{Rate (customer's average annual cost per kWh)} = \\ & \text{Reimbursement Due} \end{aligned}$$

Homeowner Responsibilities

In order to maintain this guarantee, the Homeowner agrees to:

- Maintain reasonable temperatures not below seventy-five (75) degrees F during the cooling season or above seventy-two (72) degrees F during the heating season.
- Practice reasonable energy conservation habits.
- Change or clean heat pump filters regularly as recommended by the equipment manufacturer.
- Service the HVAC equipment as recommended by the equipment manufacturer.
- Provide reasonable access to the Florida Public Utilities Company Energy Consultant to read and record meter reading at the end of year one and year two time periods.
- Inform Florida Public Utilities Company Energy Consultant of any alteration or modifications to property or equipment as well as any equipment malfunction that may affect heat pump energy consumption. Homeowner agrees that such alteration, modification or malfunction may cause this guarantee to terminate.

Florida Public Utilities Energy Consultant: _____
Energy Consultant Signature: _____
Geothermal Dealer: _____
Dealer Signature: _____
Geothermal Loop Installer: _____
Loop Installer Signature: _____

LIMITATIONS

Florida Public Utilities Company shall not be liable for any incidental or consequential damages resulting from breach of the guarantee other than as expressly stated in this agreement.

The Homeowner recognizes and agrees that Florida Public Utilities Company is not a seller, distributor, manufacturer or installer of the equipment described herein, and that Florida Public Utilities Company makes no warranties, express or implied, including warranties of merchantability or fitness for purpose, except that Florida Public Utilities Company warrants that the energy required to operate the geothermal heat pump(s) installed at the listed address will not exceed the Warranted Usage kilowatt hours. Homeowner agrees that Florida Public Utilities Company will not be liable for any direct, indirect or consequential damage suffered by the Homeowner or third party caused by the heating and cooling system, its use, installation, manufacture, or performance or lack of performance. This warranty is nontransferable.

INSPECTIONS

Florida Public Utilities Company shall have the right to verify by conducting an inspection of the Homeowner's dwelling any warranty claim made by the Homeowner. Florida Public Utilities Company shall have the right to enter the homeowner's dwelling and to make an inspection at a reasonable time by giving to the Homeowner a notice of intention to inspect at least 48 hours prior to such inspection. Customer shall not withhold consent to Florida Public Utilities Company to conduct an inspection and agrees to be present at the dwelling at the time of the inspection.

GEO THERMAL HEAT PUMP
Installation Guidelines

Job specifications and installation guidelines are as follows:

- Must be a closed loop geothermal heat pump.
- The geothermal heat pump must meet the minimum efficiency of 13.0 EER at 90° entering water temperature (85° if 90° data is not published) and water flow of 3.0 gallons per minute per ton.
- Pressure and temperature (P/T) ports shall be installed on all loop systems.
- All piping for loop shall be PE 3408 polyethylene pipe with heat-fused joints.
- Exposed polyethylene pipe shall be insulated with minimum 3/8-inch armaflex or equivalent to prevent condensation and potential moisture damage to surrounding materials.
- All loop piping is to be pressure tested above ground prior to placing in boreholes or trench.
- All vertical bore holes are to be grouted/sealed at surface penetrations or in accordance with standard water management requirements.
- Unit shall be set on sound deadening/vibration isolation pad.
- Equipment shall be sized according to Manual J or equivalent load calculation procedure.
- Equipment contractor shall provide manufacturer letter of certification to install ground source closed loop heat pumps.
- Loop contractor to provide manufacturer letter of certification in heat fusion, design (sizing), and installation of ground source closed loop systems.
- Loop contractor guarantees that loop temperature will not exceed design condition of 100-degree entering water temperature during normal cooling operations.
- Ducts shall be visually inspected for leakage. Any visible problem areas or leakage points shall be repaired or sealed.

2005 Demand-Side Management Plan
June 1, 2004



Residential Geothermal Heat Pump
Attachment B
Page 1 of 1

Florida Public Utilities Company
Geothermal Heat Pump Program

AT THE METER						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	2,012	1.90	1.45	-	-	-
2006	2,012	1.90	1.45	-	-	-
2007	2,012	1.90	1.45	-	-	-
2008	2,012	1.90	1.45	-	-	-
2009	2,012	1.90	1.45	-	-	-
2010	2,012	1.90	1.45	-	-	-
2011	2,012	1.90	1.45	-	-	-
2012	2,012	1.90	1.45	-	-	-
2013	2,012	1.90	1.45	-	-	-
2014	2,012	1.90	1.45	-	-	-

AT THE GENERATOR						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	2,167	2.46	1.88	-	-	-
2006	2,167	2.46	1.88	-	-	-
2007	2,167	2.46	1.88	-	-	-
2008	2,167	2.46	1.88	-	-	-
2009	2,167	2.46	1.88	-	-	-
2010	2,167	2.46	1.88	-	-	-
2011	2,167	2.46	1.88	-	-	-
2012	2,167	2.46	1.88	-	-	-
2013	2,167	2.46	1.88	-	-	-
2014	2,167	2.46	1.88	-	-	-

CUSTOMERS AND PARTICIPATION RATES					
YEAR	Total Number of Customers	Total Number of Eligible Customers	Annual Number of Program Participants	Total Penetration Level %	Cumulative Number of Program Participants
2005	23,414	194	-	-	-
2006	23,883	194	-	-	-
2007	24,360	196	-	-	-
2008	24,847	114	-	-	-
2009	25,344	117	-	-	-
2010	25,851	117	-	-	-
2011	26,368	117	-	-	-
2012	26,896	117	-	-	-
2013	27,433	117	-	-	-
2014	27,982	117	-	-	-

GoodCents Home/Energy Star Program

► Program Description

The GoodCents Home Program has long been the standard for energy efficient construction in Northwest Florida and throughout other parts of the country where a GoodCents home program has been offered by as many as 270 different utilities. For Florida Public Utilities Company and our customers, the GoodCents standards provide guidance concerning energy efficiency in new construction by promoting energy efficient home construction techniques, and by evaluating the energy efficient components of design and construction practices.

In an effort to further enhance the GoodCents Home Program and market it more efficiently and effectively, GoodCents signed a Memorandum of Understanding with the Department of Energy (DOE) and the Environmental Protection Agency (EPA). Since Florida Public Utilities Company is a member of GoodCents, this agreement allows us to offer the Energy Star Home Program to builders and customers, thereby relating the performance of GoodCents homes to the nationally recognized Energy Star efficiency label. In most cases, a standard GoodCents home will also qualify as an Energy Star home. The GoodCents Home standards continue to exceed the minimum efficiency standards for new construction as set forth by the Florida Model Energy Code.

► Participation Standards

The GoodCents Home/Energy Star Program is available to individuals or entities constructing new residential buildings served by Florida Public Utilities Company's service area.

► Benefits and Costs

Through Florida Public Utilities Company's GoodCents Home/Energy Star Program, participating customers will experience lower utility bills, increased comfort, and the eligibility to use energy efficient home mortgage products. Florida Public Utilities Company's benefits include kWh energy reduction, kW demand savings, and increased customer satisfaction. Regardless of its

designation as GoodCents or GoodCents and Energy Star, the average GoodCents home constructed in northwest Florida today achieves a 0.5 kW demand reduction in the summer, 0.9 kW demand reduction in the winter, and 929 kWh annual energy reduction. The energy and demand savings were determined through engineering analysis using the Residential Building Energy Program (RBEP) to compare an 1,800-square-foot GoodCents /Energy Star Home to the same home built to the Florida Model Energy Code minimum standard as outlined below.

	Code Built Home	GoodCents/Energy Star Home
Wall Insulation	R-11 Wall Insulation	R-13 Wall Insulation
Ceiling Insulation	R-30 Attic Insulation	R-38 Attic Insulation
Windows	Double Pane Windows	Double Pane Windows
Doors	Wood Doors	Insulated Doors
Heating	.78 AFUE / 3.1 COP	.90 AFUE / 3.25 COP
Cooling	10.0 SEER	12.0 SEER

► **Monitoring and Evaluation**

Florida Public Utilities Company will track the number of homes meeting the GoodCents/Energy Star Home guidelines. It will validate engineering analysis of energy and demand savings with building data and metering. Depending on the level of program participation, interviews may be performed with participants and nonparticipants, including both builders and homeowners, to establish acceptance of and customer satisfaction with the program.

► **Cost-Effectiveness**

This program is cost-effective using the Commission's approved methodology (Rule 25-17.008). The summary tables of demand and energy reductions are included in Attachment A. The cost-effectiveness FIRE model results are included in Attachment B.

2005 Demand-Side Management Plan
June 1, 2004



GoodCents Home/Energy Star
Attachment A
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Florida Public Utilities Company
GoodCents Home/Energy Star Program

AT THE METER						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	929	0.90	0.50	55,740	54	30
2006	929	0.90	0.50	111,480	108	60
2007	929	0.90	0.50	167,220	162	90
2008	929	0.90	0.50	222,960	216	120
2009	929	0.90	0.50	278,700	270	150
2010	929	0.90	0.50	334,440	324	180
2011	929	0.90	0.50	390,180	378	210
2012	929	0.90	0.50	445,920	432	240
2013	929	0.90	0.50	501,660	486	270
2014	929	0.90	0.50	557,400	540	300

AT THE GENERATOR						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	977	1.10	0.61	58,620	66	37
2006	977	1.10	0.61	117,240	132	73
2007	977	1.10	0.61	175,860	198	110
2008	977	1.10	0.61	234,480	264	146
2009	977	1.10	0.61	293,100	330	183
2010	977	1.10	0.61	351,720	396	220
2011	977	1.10	0.61	410,340	462	256
2012	977	1.10	0.61	468,960	528	293
2013	977	1.10	0.61	527,580	594	329
2014	977	1.10	0.61	586,200	660	366

CUSTOMERS AND PARTICIPATION RATES					
YEAR	Total Number of Customers	Total Number of Eligible Customers	Annual Number of Program Participants	Total Penetration Level %	Cumulative Number of Program Participants
2005	23,414	193	60	31.1%	60
2006	23,883	193	60	31.1%	120
2007	24,360	197	60	30.5%	180
2008	24,847	113	60	53.1%	240
2009	25,344	117	60	51.3%	300
2010	25,851	117	60	51.3%	360
2011	26,368	117	60	51.3%	420
2012	26,896	117	60	51.3%	480
2013	27,433	117	60	51.3%	540
2014	27,982	117	60	51.3%	600

2005 Demand-Side Management Plan
June 1, 2004



GoodCents Home/Energy Star
 Attachment B
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The Florida Integrated Resource Evaluation Model
Program Input Area

Program Name = GC Home

Program Participant's Rate Class = RS

Program's New Participation
Mid-Year Estimates

Year	Annual New Participation	Cumulative New Participants
2005	60	60
2006	60	120
2007	60	180
2008	60	240
2009	60	300
2010	60	360
2011	60	420
2012	60	480
2013	60	540
2014	60	600
2015	0	600
2016	0	600
2017	0	600
2018	0	600
2019	0	600
2020	0	600
2021	0	600
2022	0	600
2023	0	600
2024	0	600
2025	0	600
2026	0	600
2027	0	600
2028	0	600
2029	0	600
2030	0	600
2031	0	600
2032	0	600
2033	0	600
2034	0	600

Program Input Assumptions & Parameters

Change in Customer's Coincident Peak kW (at the meter)	-0.50
Change in Customer's kWh use (at the meter)	-929
Program Life in Years	30
Change in Customer's Winter kW Peak	-0.90
Utility's Non-Recurring Programmatic Cost Per Customer	\$ 200.00
Utility's Recurring Cost Per Customer	\$ 0.25
Utility Cost Escalation Rate (enter "Infl" to use inflation)	Infl
Customer Paid Equipment Costs	\$ 475.00
Cust. Equip Cost Escalation (enter "Infl" to use inflation)	Infl
Customer O&M Cost	\$ -
Customer O&M Cost Escalation (enter "Infl" to use inflation)	Infl
Customer Tax Credit per Installation	\$ -
Customer Tax Credit Escalation (enter "Infl" to use inflation)	Infl
Change in Supply Cost	\$ -
Supply Cost Escalation Rate (enter "Infl" to use inflation)	Infl
Utility Non Recurring Rebate/Incentive	\$ -
Utility Recurring Rebate/Incentive	\$ -
Utility Rebate/Incent. Escal Rate (enter "Infl" to use inflation)	Infl
Base Year	2005
Level (1 = 115 kV >, 2 = Distribution Primary, 3 = Distribution Secondary)	3
Average Annual Change in Customer's Monthly Billing Demand	0.00
Adjust Participation for Free Riders? Yes = 1 No = 2	2

2005 Demand-Side Management Plan
June 1, 2004



GoodCents Home/Energy Star
 Attachment B
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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	-0.50	kW/Cus
(2) Change in Peak kW per Customer at generator	-0.61	kW Gen/Cus
(3) kW Line Loss Percentage	6.40%	
(4) Change in kWh per Customer at generator	(977)	kWh/Cus/Yr
(5) kWh Line Loss Percentage	5.20%	
(6) Group Line Loss Multiplier	1.00	
(7) Annual Change in Customer kWh at Meter	(929)	kWh/Cus/Yr
(8) Change in Winter kW per Cust at meter	-0.90	kW/Cus

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years
(2) Economic Life of Incremental Purchased Capacity	30	Years
(3) Economic Life of Incremental Distribution	30	Years
(4) K-Factor for Distribution Capacity	1.4393	

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	\$ 200.00	\$/Cus
(2) Utility Recurring Cost Per Customer	\$ 0.25	\$/Cus/Year
(3) Utility Cost Escalation Rate	2.00%	
(4) Customer Equipment Cost	\$ 475.00	\$/Cus
(5) Customer Equipment Cost Escalation Rate	2.00%	
(6) Customer O&M Cost	\$ -	\$/Cus/Year
(7) Customer O&M Cost Escalation Rate	2.00%	
(8) Customer Tax Credit Per Installation	\$ -	\$/Cus
(9) Customer Tax Credit Escalation Rate	2.00%	
(10) Change in Supply Costs	\$ -	\$/Cus/Year
(11) Supply Costs Escalation Rate	2.00%	
(12) Utility Discount Rate	7.86%	
(13) Utility AFUDC Rate	0.00%	
(14) Utility Nonrecurring Rebate/Incentive	\$ -	\$/Cus
(15) Utility Recurring Rebate/Incentive	\$ -	\$/Cus/Year
(16) Utility Rebate/Incentive Escalation Rate	2.00%	

* Supplemental information.

** These are N/A because FPU purchases all of its generation and transmission through wholesale purchased power contracts with JEA and Gulf Power

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2005	
(2) In-Service Year For Incremental Generation	N/A	**
(3) In-Service Year For Distribution	2005	
(4) Base Year Incremental Generation Cost	N/A	**
(5) Base Year Incremental Transmission Cost	N/A	**
(6) Base Year Incremental Distribution Cost	\$35.00	\$/kW
(7) Distribution Cost Escalation Rate	2.00%	
(8) Generator Fixed O & M Cost	N/A	**
(9) Generator Fixed O&M Escalation Rate	N/A	**
(10) Transmission Fixed O & M Cost	N/A	**
(11) Distribution Fixed O & M Cost	\$0.87	\$/kW/Yr
(12) Distribution Fixed O&M Escalation Rate	2.00%	
(13) Incremental Gen Variable O & M Costs	N/A	**
(14) Incre Gen Variable O&M Cost Esc Rate	N/A	**
(15) Incremental Gen Capacity Factor	N/A	**
(16) Incremental Purchased Energy Cost	\$0.0206	\$/kWh***
(17) Incremental Purchased Energy Cost Esc Rate	1.20%	
(18) Incremental Purchased Capacity Cost	\$76.46	\$/kW/Yr***
(19) Incremental Purchased Capacity Cost Esc Rate	1.20%	

Stop Revenue Loss at In-Service Year?

No

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

(1) Nonpurchased Power Cost In Customer Bill (Base Year)	\$0.0137	\$/kWh
(2) Nonpurchased Power 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	0.00	kW/Mo.

Summary Results for This Analysis

	RIM	Participants ¹
NPV Benefits (\$000s)	\$ 417	\$ 227
NPV Costs (\$000s)	\$ 323	\$ 225
NPV Net Benefits (\$000s)	\$ 93	\$ 3
Benefit:Cost Ratio	1.298	1.012

*** These values are the weighted average wholesale power costs for 2004

2005 Demand-Side Management Plan
June 1, 2004



GoodCents Home/Energy Star
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INPUT DATA -- PART 2
Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code

1	2	3	4	5	6	7	8	9	10	11
Year	Cumulative Total Participating Customers	Cumulative Participating Customers Adj Free Rides	FPU's Purch. Power Cost in Ret. Rate (\$/kWh)	Marginal Fuel Cost (Decreases) (\$/kWh)	Marginal Fuel Cost (Increases) (\$/kWh)	Replacement Fuel Cost (\$/kWh)	Program kW Effectiveness Factor	Program kWh Effectiveness Factor	Other Costs (\$000)	Other Benefits (\$000)
2005	60	60	\$ 0.03379	\$ 0.02063	\$ 0.02063	\$ 0.03379	1.00	1.00	0.00	0.00
2006	120	120	\$ 0.03379	\$ 0.02091	\$ 0.02091	\$ 0.03379	1.00	1.00	0.00	0.00
2007	180	180	\$ 0.03379	\$ 0.02118	\$ 0.02118	\$ 0.03379	1.00	1.00	0.00	0.00
2008	240	240	\$ 0.03379	\$ 0.02144	\$ 0.02144	\$ 0.03379	1.00	1.00	0.00	0.00
2009	300	300	\$ 0.03379	\$ 0.02169	\$ 0.02169	\$ 0.03379	1.00	1.00	0.00	0.00
2010	360	360	\$ 0.03379	\$ 0.02195	\$ 0.02195	\$ 0.03379	1.00	1.00	0.00	0.00
2011	420	420	\$ 0.03379	\$ 0.02222	\$ 0.02222	\$ 0.03379	1.00	1.00	0.00	0.00
2012	480	480	\$ 0.03379	\$ 0.02248	\$ 0.02248	\$ 0.03379	1.00	1.00	0.00	0.00
2013	540	540	\$ 0.03379	\$ 0.02275	\$ 0.02275	\$ 0.03379	1.00	1.00	0.00	0.00
2014	600	600	\$ 0.03379	\$ 0.02303	\$ 0.02303	\$ 0.03379	1.00	1.00	0.00	0.00
2015	600	600	\$ 0.03379	\$ 0.02330	\$ 0.02330	\$ 0.03379	1.00	1.00	0.00	0.00
2016	600	600	\$ 0.03379	\$ 0.02358	\$ 0.02358	\$ 0.03379	1.00	1.00	0.00	0.00
2017	600	600	\$ 0.03379	\$ 0.02387	\$ 0.02387	\$ 0.03379	1.00	1.00	0.00	0.00
2018	600	600	\$ 0.03379	\$ 0.02415	\$ 0.02415	\$ 0.03379	1.00	1.00	0.00	0.00
2019	600	600	\$ 0.03379	\$ 0.02444	\$ 0.02444	\$ 0.03379	1.00	1.00	0.00	0.00
2020	600	600	\$ 0.03379	\$ 0.02474	\$ 0.02474	\$ 0.03379	1.00	1.00	0.00	0.00
2021	600	600	\$ 0.03379	\$ 0.02503	\$ 0.02503	\$ 0.03379	1.00	1.00	0.00	0.00
2022	600	600	\$ 0.03379	\$ 0.02533	\$ 0.02533	\$ 0.03379	1.00	1.00	0.00	0.00
2023	600	600	\$ 0.03379	\$ 0.02564	\$ 0.02564	\$ 0.03379	1.00	1.00	0.00	0.00
2024	600	600	\$ 0.03379	\$ 0.02594	\$ 0.02594	\$ 0.03379	1.00	1.00	0.00	0.00
2025	600	600	\$ 0.03379	\$ 0.02626	\$ 0.02626	\$ 0.03379	1.00	1.00	0.00	0.00
2026	600	600	\$ 0.03379	\$ 0.02657	\$ 0.02657	\$ 0.03379	1.00	1.00	0.00	0.00
2027	600	600	\$ 0.03379	\$ 0.02689	\$ 0.02689	\$ 0.03379	1.00	1.00	0.00	0.00
2028	600	600	\$ 0.03379	\$ 0.02721	\$ 0.02721	\$ 0.03379	1.00	1.00	0.00	0.00
2029	600	600	\$ 0.03379	\$ 0.02754	\$ 0.02754	\$ 0.03379	1.00	1.00	0.00	0.00
2030	600	600	\$ 0.03379	\$ 0.02787	\$ 0.02787	\$ 0.03379	1.00	1.00	0.00	0.00
2031	600	600	\$ 0.03379	\$ 0.02820	\$ 0.02820	\$ 0.03379	1.00	1.00	0.00	0.00
2032	600	600	\$ 0.03379	\$ 0.02854	\$ 0.02854	\$ 0.03379	1.00	1.00	0.00	0.00
2033	600	600	\$ 0.03379	\$ 0.02888	\$ 0.02888	\$ 0.03379	1.00	1.00	0.00	0.00
2034	600	600	\$ 0.03379	\$ 0.02923	\$ 0.02923	\$ 0.03379	1.00	1.00	0.00	0.00

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

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Incremental T&D Capacity and Incremental Fuel

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

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2005 Demand-Side Management Plan
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Program Costs & Participants' B & C

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Worksheet for Utility Program Costs and Participants' Benefits & Costs

Utility Program Costs, Rebates, & Incentives								Participating Customers' Benefits and Costs						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Year	Annual Incremental KWH Generated (\$000s)	Utility Nonrecurring Costs (\$000)	Utility Recurring Costs (\$000)	Total Utility Program Costs (\$000)	Utility Nonrecurring Rebates/Incent. (\$000)	Utility Recurring Rebates/Incent. (\$000)	Total Utility Paid Rebates/Incent. (\$000)	Participant Equipment Costs (\$000)	Participant O&M Costs (\$000)	Total Participant Costs (\$000)	Change in Participants' Billed kWh (\$000)	Change in Participants' Billed Fuel (\$000)	Change in Participants' Billed Non-Fuel (\$000)	Change in Participants' Electric Bills (\$000)
2005	(59) \$	12 \$	0 \$	12 \$	- \$	- \$	- \$	29 \$	- \$	29 \$	(56) \$	(2) \$	(1) \$	(3) \$
2006	(117) \$	12 \$	0 \$	12 \$	- \$	- \$	- \$	29 \$	- \$	29 \$	(111) \$	(4) \$	(2) \$	(5) \$
2007	(176) \$	12 \$	0 \$	13 \$	- \$	- \$	- \$	30 \$	- \$	30 \$	(167) \$	(6) \$	(2) \$	(8) \$
2008	(235) \$	13 \$	0 \$	13 \$	- \$	- \$	- \$	30 \$	- \$	30 \$	(223) \$	(8) \$	(3) \$	(11) \$
2009	(293) \$	13 \$	0 \$	13 \$	- \$	- \$	- \$	31 \$	- \$	31 \$	(279) \$	(9) \$	(4) \$	(13) \$
2010	(352) \$	13 \$	0 \$	13 \$	- \$	- \$	- \$	31 \$	- \$	31 \$	(334) \$	(11) \$	(5) \$	(16) \$
2011	(410) \$	14 \$	0 \$	14 \$	- \$	- \$	- \$	32 \$	- \$	32 \$	(390) \$	(13) \$	(5) \$	(19) \$
2012	(469) \$	14 \$	0 \$	14 \$	- \$	- \$	- \$	33 \$	- \$	33 \$	(446) \$	(15) \$	(6) \$	(21) \$
2013	(528) \$	14 \$	0 \$	14 \$	- \$	- \$	- \$	33 \$	- \$	33 \$	(502) \$	(17) \$	(7) \$	(24) \$
2014	(586) \$	14 \$	0 \$	15 \$	- \$	- \$	- \$	34 \$	- \$	34 \$	(557) \$	(19) \$	(8) \$	(26) \$
2015	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2016	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2017	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2018	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2019	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2020	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2021	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2022	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2023	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2024	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2025	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2026	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2027	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2028	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2029	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2030	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2031	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2032	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2033	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
2034	(586) \$	- \$	0 \$	0 \$	- \$	- \$	- \$	- \$	- \$	- \$	(557) \$	(19) \$	(8) \$	(26) \$
Nominal	\$ (14,953)	\$ 131	\$ 5	\$ 137	- \$	- \$	- \$	312 \$	- \$	312 \$	\$ (14,214)	\$ (480)	\$ (195)	\$ (675)
NPV	\$ (5,031)	\$ 95	\$ 2	\$ 96	- \$	- \$	- \$	225 \$	- \$	225 \$	\$ (4,783)	\$ (162)	\$ (66)	\$ (227)

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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
	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 Distribution Cap Costs (\$000s)	Incremental Prog Induced Fuel Costs (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits (\$000s)	Cumulative Discounted Net Benefits (\$000s)
Year												
2005	\$ -	\$ 12	\$ 29	\$ -	\$ -	\$ (3)	\$ (0)	\$ (1)	\$ 41	\$ 4	\$ (36)	\$ (36)
2006	\$ -	\$ 12	\$ 29	\$ -	\$ -	\$ (6)	\$ (0)	\$ (2)	\$ 41	\$ 8	\$ (33)	\$ (67)
2007	\$ -	\$ 13	\$ 30	\$ -	\$ -	\$ (9)	\$ (0)	\$ (4)	\$ 42	\$ 13	\$ (29)	\$ (92)
2008	\$ -	\$ 13	\$ 30	\$ -	\$ -	\$ (12)	\$ (1)	\$ (5)	\$ 43	\$ 17	\$ (26)	\$ (113)
2009	\$ -	\$ 13	\$ 31	\$ -	\$ -	\$ (15)	\$ (1)	\$ (6)	\$ 44	\$ 22	\$ (22)	\$ (129)
2010	\$ -	\$ 13	\$ 31	\$ -	\$ -	\$ (18)	\$ (1)	\$ (8)	\$ 45	\$ 27	\$ (18)	\$ (142)
2011	\$ -	\$ 14	\$ 32	\$ -	\$ -	\$ (21)	\$ (1)	\$ (9)	\$ 46	\$ 31	\$ (14)	\$ (151)
2012	\$ -	\$ 14	\$ 33	\$ -	\$ -	\$ (24)	\$ (1)	\$ (11)	\$ 47	\$ 36	\$ (10)	\$ (157)
2013	\$ -	\$ 14	\$ 33	\$ -	\$ -	\$ (28)	\$ (2)	\$ (12)	\$ 48	\$ 41	\$ (6)	\$ (160)
2014	\$ -	\$ 15	\$ 34	\$ -	\$ -	\$ (31)	\$ (2)	\$ (14)	\$ 49	\$ 46	\$ (2)	\$ (161)
2015	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (31)	\$ (2)	\$ (14)	\$ 0	\$ 47	\$ 47	\$ (139)
2016	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (32)	\$ (2)	\$ (14)	\$ 0	\$ 48	\$ 47	\$ (119)
2017	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (32)	\$ (2)	\$ (14)	\$ 0	\$ 48	\$ 48	\$ (99)
2018	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (33)	\$ (2)	\$ (14)	\$ 0	\$ 49	\$ 49	\$ (81)
2019	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (33)	\$ (2)	\$ (14)	\$ 0	\$ 49	\$ 49	\$ (64)
2020	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (33)	\$ (2)	\$ (15)	\$ 0	\$ 50	\$ 50	\$ (48)
2021	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (34)	\$ (2)	\$ (15)	\$ 0	\$ 51	\$ 50	\$ (33)
2022	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (34)	\$ (2)	\$ (15)	\$ 0	\$ 51	\$ 51	\$ (19)
2023	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (35)	\$ (2)	\$ (15)	\$ 0	\$ 52	\$ 52	\$ (6)
2024	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (35)	\$ (2)	\$ (15)	\$ 0	\$ 52	\$ 52	\$ 7
2025	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (35)	\$ (2)	\$ (15)	\$ 0	\$ 53	\$ 53	\$ 18
2026	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (36)	\$ (2)	\$ (16)	\$ 0	\$ 54	\$ 54	\$ 29
2027	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (36)	\$ (2)	\$ (16)	\$ 0	\$ 54	\$ 54	\$ 40
2028	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (37)	\$ (2)	\$ (16)	\$ 0	\$ 55	\$ 55	\$ 49
2029	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (37)	\$ (3)	\$ (16)	\$ 0	\$ 56	\$ 56	\$ 58
2030	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (38)	\$ (3)	\$ (16)	\$ 0	\$ 57	\$ 56	\$ 67
2031	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (38)	\$ (3)	\$ (17)	\$ 0	\$ 57	\$ 57	\$ 75
2032	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (39)	\$ (3)	\$ (17)	\$ 0	\$ 58	\$ 58	\$ 82
2033	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (39)	\$ (3)	\$ (17)	\$ 0	\$ 59	\$ 58	\$ 89
2034	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (39)	\$ (3)	\$ (17)	\$ 0	\$ 59	\$ 59	\$ 96

FLORIDA PUBLIC
UTILITIES

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Filename: GC Home

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)
2005	\$ 29	\$ -	\$ -	\$ -	\$ (3)	\$ -	\$ -	\$ 29	\$ 3	\$ (26)	\$ (26)
2006	\$ 29	\$ -	\$ -	\$ -	\$ (5)	\$ -	\$ -	\$ 29	\$ 5	\$ (24)	\$ (48)
2007	\$ 30	\$ -	\$ -	\$ -	\$ (8)	\$ -	\$ -	\$ 30	\$ 8	\$ (22)	\$ (67)
2008	\$ 30	\$ -	\$ -	\$ -	\$ (11)	\$ -	\$ -	\$ 30	\$ 11	\$ (20)	\$ (82)
2009	\$ 31	\$ -	\$ -	\$ -	\$ (13)	\$ -	\$ -	\$ 31	\$ 13	\$ (18)	\$ (95)
2010	\$ 31	\$ -	\$ -	\$ -	\$ (16)	\$ -	\$ -	\$ 31	\$ 16	\$ (16)	\$ (106)
2011	\$ 32	\$ -	\$ -	\$ -	\$ (19)	\$ -	\$ -	\$ 32	\$ 19	\$ (14)	\$ (114)
2012	\$ 33	\$ -	\$ -	\$ -	\$ (21)	\$ -	\$ -	\$ 33	\$ 21	\$ (12)	\$ (121)
2013	\$ 33	\$ -	\$ -	\$ -	\$ (24)	\$ -	\$ -	\$ 33	\$ 24	\$ (10)	\$ (127)
2014	\$ 34	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ 34	\$ 26	\$ (8)	\$ (130)
2015	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (118)
2016	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (106)
2017	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (96)
2018	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (86)
2019	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (77)
2020	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (68)
2021	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (60)
2022	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (53)
2023	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (46)
2024	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (40)
2025	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (34)
2026	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (29)
2027	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (24)
2028	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (19)
2029	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (15)
2030	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (11)
2031	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (7)
2032	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (3)
2033	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ (0)
2034	\$ -	\$ -	\$ -	\$ -	\$ (26)	\$ -	\$ -	\$ -	\$ 26	\$ 26	\$ 3
Nominal NPV	\$ 312	\$ -	\$ -	\$ -	\$ (675)	\$ -	\$ -	\$ 312	\$ 675	\$ 363	
	\$ 225	\$ -	\$ -	\$ -	\$ (227)	\$ -	\$ -	\$ 225	\$ 227	\$ 3	

FLORIDA PUBLIC
UTILITIES

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Run Date:	Page 1 of 1 26-May-04 8:54 AM
Filename:	GC Home

1	2	3	4	5	6	7	8	9	10	11	12	13	14
	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)
Year													
2005	\$ -	\$ 12	\$ -	\$ (3)	\$ (3)	\$ (0)	\$ (1)	\$ -	\$ -	\$ 15	\$ 4	\$ (10)	\$ (10)
2006	\$ -	\$ 12	\$ -	\$ (5)	\$ (6)	\$ (0)	\$ (2)	\$ -	\$ -	\$ 18	\$ 8	\$ (9)	\$ (19)
2007	\$ -	\$ 13	\$ -	\$ (9)	\$ (9)	\$ (0)	\$ (4)	\$ -	\$ -	\$ 20	\$ 13	\$ (8)	\$ (26)
2008	\$ -	\$ 13	\$ -	\$ (11)	\$ (12)	\$ (1)	\$ (5)	\$ -	\$ -	\$ 23	\$ 17	\$ (6)	\$ (30)
2009	\$ -	\$ 13	\$ -	\$ (13)	\$ (15)	\$ (1)	\$ (6)	\$ -	\$ -	\$ 26	\$ 22	\$ (4)	\$ (34)
2010	\$ -	\$ 13	\$ -	\$ (16)	\$ (18)	\$ (1)	\$ (8)	\$ -	\$ -	\$ 29	\$ 27	\$ (3)	\$ (36)
2011	\$ -	\$ 14	\$ -	\$ (19)	\$ (21)	\$ (1)	\$ (9)	\$ -	\$ -	\$ 32	\$ 31	\$ (1)	\$ (36)
2012	\$ -	\$ 14	\$ -	\$ (21)	\$ (24)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 35	\$ 36	\$ 1	\$ (35)
2013	\$ -	\$ 14	\$ -	\$ (24)	\$ (28)	\$ (2)	\$ (12)	\$ -	\$ -	\$ 38	\$ 41	\$ 3	\$ (34)
2014	\$ -	\$ 15	\$ -	\$ (26)	\$ (31)	\$ (2)	\$ (14)	\$ -	\$ -	\$ 41	\$ 46	\$ 5	\$ (31)
2015	\$ -	\$ 0	\$ -	\$ (26)	\$ (31)	\$ (2)	\$ (14)	\$ -	\$ -	\$ 27	\$ 47	\$ 20	\$ (21)
2016	\$ -	\$ 0	\$ -	\$ (26)	\$ (32)	\$ (2)	\$ (14)	\$ -	\$ -	\$ 27	\$ 48	\$ 21	\$ (12)
2017	\$ -	\$ 0	\$ -	\$ (26)	\$ (32)	\$ (2)	\$ (14)	\$ -	\$ -	\$ 27	\$ 48	\$ 21	\$ (4)
2018	\$ -	\$ 0	\$ -	\$ (26)	\$ (33)	\$ (2)	\$ (14)	\$ -	\$ -	\$ 27	\$ 49	\$ 22	\$ 5
2019	\$ -	\$ 0	\$ -	\$ (26)	\$ (33)	\$ (2)	\$ (14)	\$ -	\$ -	\$ 27	\$ 49	\$ 23	\$ 12
2020	\$ -	\$ 0	\$ -	\$ (26)	\$ (33)	\$ (2)	\$ (15)	\$ -	\$ -	\$ 27	\$ 50	\$ 23	\$ 20
2021	\$ -	\$ 0	\$ -	\$ (26)	\$ (34)	\$ (2)	\$ (15)	\$ -	\$ -	\$ 27	\$ 51	\$ 24	\$ 27
2022	\$ -	\$ 0	\$ -	\$ (26)	\$ (34)	\$ (2)	\$ (15)	\$ -	\$ -	\$ 27	\$ 51	\$ 25	\$ 34
2023	\$ -	\$ 0	\$ -	\$ (26)	\$ (35)	\$ (2)	\$ (15)	\$ -	\$ -	\$ 27	\$ 52	\$ 25	\$ 40
2024	\$ -	\$ 0	\$ -	\$ (26)	\$ (35)	\$ (2)	\$ (15)	\$ -	\$ -	\$ 27	\$ 52	\$ 26	\$ 46
2025	\$ -	\$ 0	\$ -	\$ (26)	\$ (35)	\$ (2)	\$ (15)	\$ -	\$ -	\$ 27	\$ 53	\$ 26	\$ 52
2026	\$ -	\$ 0	\$ -	\$ (26)	\$ (36)	\$ (2)	\$ (16)	\$ -	\$ -	\$ 27	\$ 54	\$ 27	\$ 58
2027	\$ -	\$ 0	\$ -	\$ (26)	\$ (36)	\$ (2)	\$ (16)	\$ -	\$ -	\$ 27	\$ 54	\$ 28	\$ 63
2028	\$ -	\$ 0	\$ -	\$ (26)	\$ (37)	\$ (2)	\$ (16)	\$ -	\$ -	\$ 27	\$ 55	\$ 28	\$ 68
2029	\$ -	\$ 0	\$ -	\$ (26)	\$ (37)	\$ (3)	\$ (16)	\$ -	\$ -	\$ 27	\$ 56	\$ 29	\$ 73
2030	\$ -	\$ 0	\$ -	\$ (26)	\$ (38)	\$ (3)	\$ (16)	\$ -	\$ -	\$ 27	\$ 57	\$ 30	\$ 77
2031	\$ -	\$ 0	\$ -	\$ (26)	\$ (38)	\$ (3)	\$ (17)	\$ -	\$ -	\$ 27	\$ 57	\$ 30	\$ 82
2032	\$ -	\$ 0	\$ -	\$ (26)	\$ (39)	\$ (3)	\$ (17)	\$ -	\$ -	\$ 27	\$ 58	\$ 31	\$ 86
2033	\$ -	\$ 0	\$ -	\$ (26)	\$ (39)	\$ (3)	\$ (17)	\$ -	\$ -	\$ 27	\$ 59	\$ 32	\$ 89
2034	\$ -	\$ 0	\$ -	\$ (26)	\$ (39)	\$ (3)	\$ (17)	\$ -	\$ -	\$ 27	\$ 59	\$ 33	\$ 93

GoodCents Energy Survey Program

► Program Description

The objective of the GoodCents Energy Survey (formerly known as the Residential Audit Program) is to provide Florida Public Utilities Company's residential customers with energy conservation advice that encourages the implementation of efficiency measures resulting in energy savings for the customer. These measures, once implemented, also lower Florida Public Utilities Company's energy requirements and improve operating efficiencies. Florida Public Utilities Company views this program as a way of promoting the installation of cost-effective conservation features. During the survey process, the customer is provided with specific whole-house recommendations. The survey process also checks for possible duct leakage. If a problem is identified, recommendations are made for further analysis and repairs. Blower-door testing is required to identify and quantify the duct leakage and will be performed by a contractor. After identifying the leakage sites and quantities, the customer is given a written summary of the test findings and the potential for savings, along with a list of approved repair contractors. Through follow-up survey work, Florida Public Utilities Company monitors and tracks the installation of cost-effective conservation features and/or duct leakage repairs. As a result, the increase in operating efficiencies provides for a reduction in weather-sensitive peak demand, as well as a reduction in energy consumption. As technology advances and the use of the Internet become a part of everyone's life, Florida Public Utilities Company may implement an on-line energy survey. This will allow us to reach customers that we would otherwise not reach and allow us to promote energy efficiency to more people.

► Participation Standards

The GoodCents Energy Survey Program is available to all residential customers served by Florida Public Utilities Company. The program provides participating customers with information they need to determine which energy saving measures are better suited to their individual needs

and requirements. Customers are notified of this cost-free service every six months as specified in Rule 25-17.003 of the Florida Administrative Code.

► **Benefits and Costs**

The Residential Building Energy Program (RBEP) was used to estimate energy consumption impacts. Based on the RBEP analysis for a typical northwest Florida home, it is estimated that the GoodCents Energy Survey Program yields an approximate reduction in demand of 0.1 kW per customer, and an energy reduction of 211 kWh per customer on an annual basis. The reduction is greater if duct leakage has been identified and repairs are made. In this case, the estimated annual energy savings are 500 kWh per customer.

► **Monitoring and Evaluation**

The availability of the audit program is communicated to residential customers using bill inserts, newspaper advertisements, and other media. Each participating customer is presented with an assessment of his or her current energy situation and recommendations for improvement. Florida Public Utilities Company can assist customers in locating qualified contractors to properly install the recommended changes.

Florida Public Utilities Company conducts follow-up surveys after customers have implemented the specific recommendations. Data concerning these changes are accumulated so the impact of the energy surveys can be more accurately measured.

► **Cost-Effectiveness**

Standard cost-effectiveness analysis is not applicable for energy audits. The purpose of the energy audit is to discover energy efficiency options and changes that customers can choose to implement. Customers, on average, will choose to implement the most cost-effective options. Audit programs like this one serve energy customers by providing them with reliable information on which to base their energy efficiency decisions.

2005 Demand-Side Management Plan
June 1, 2004



GoodCents Energy Survey
 Attachment A
 Page 1 of 1

Florida Public Utilities Company
GoodCents Energy Survey Program

AT THE METER						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	211	0.06	0.107	75,960	22	39
2006	211	0.06	0.107	151,920	43	77
2007	211	0.06	0.107	227,880	65	116
2008	211	0.06	0.107	303,840	86	154
2009	211	0.06	0.107	379,800	108	193
2010	211	0.06	0.107	455,760	130	231
2011	211	0.06	0.107	531,720	151	270
2012	211	0.06	0.107	607,680	173	308
2013	211	0.06	0.107	683,640	194	347
2014	211	0.06	0.107	759,600	216	385

AT THE GENERATOR						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	228	0.078	0.139	82,080	28	50
2006	228	0.078	0.139	164,160	56	100
2007	228	0.078	0.139	246,240	84	150
2008	228	0.078	0.139	328,320	112	200
2009	228	0.078	0.139	410,400	140	250
2010	228	0.078	0.139	492,480	168	300
2011	228	0.078	0.139	574,560	197	350
2012	228	0.078	0.139	656,640	225	400
2013	228	0.078	0.139	738,720	253	450
2014	228	0.078	0.139	820,800	281	500

CUSTOMERS AND PARTICIPATION RATES					
YEAR	Total Number of Residential Customers	Total Number of Eligible Residential Customers	Annual Number of Program Participants	Total Penetration Level %	Cumulative Number of Program Participants
2005	23,414	23,414	360	1.5%	360
2006	23,883	23,883	360	3.0%	720
2007	24,360	24,360	360	4.4%	1,080
2008	24,847	24,847	360	5.8%	1,440
2009	25,344	25,344	360	7.1%	1,800
2010	25,851	25,851	360	8.4%	2,160
2011	26,368	26,368	360	9.6%	2,520
2012	26,896	26,896	360	10.7%	2,880
2013	27,433	27,433	360	11.8%	3,240
2014	27,982	27,982	360	12.9%	3,600

Residential Heating & Cooling Efficiency Upgrade Program

► Program Description

This program is directed at reducing the rate of growth in peak demand and energy throughout Florida Public Utilities Company's electricity service territories. The program will do this by increasing the saturation of high-efficiency heat pumps. Two types of equipment replacements in single-family dwellings are considered. Type 1 is for high-efficiency heat pumps replacing resistance-heating systems. Type 2 is for high-efficiency heat pumps replacing lower-efficiency heat pumps. For Type 1, an incentive of \$75 per qualifying unit is paid to participating dealers and the customer receives \$100 for a unit with a minimum SEER of 12.0. For Type 2, an incentive of \$25 per qualifying unit is paid to participating dealers and the customer receives \$100 for a replacement unit with a minimum SEER of 12.0.

► Participation Standards

- The residential dwelling must be an existing single-family detached structure (no mobile homes or multifamily units) in Florida Public Utilities Company's service territory.
- The HVAC system must be ducted.
- The minimum qualifying efficiency rating for the replacement heat pump (ARI rating only) is 12.0 SEER.
- For a heat pump being replaced, the maximum supplemental strip heating physically contained in the system shall not exceed 2 kW per nominal ton. On a system of less than 2.5 tons, a 5 kW heat strip will be allowed.
- For a heat pump using supplemental strip heating, a two-stage indoor thermostat is required.
- If replacing a straight cooling system, the residence cannot have oil or electric resistance as the primary heat source.
- In the situation where a replacement heating and cooling system will qualify for two rebates (Florida Public Utilities Company's and a gas company's), Florida Public Utilities Company will not pay its rebate so that a double payment is avoided.
- HVAC contractors and customers will submit rebate request forms to Florida Public Utilities Company. The contractor, certifying that the equipment installed accords with the program standards, will sign the form. The customer will sign the form verifying that the equipment was installed and that the incentive recipient's name and mailing address are correct.

- The Heating and Cooling Rebate request form must be received within 30 days of the installation date of the unit to assure the payment of the dealer incentive.
- Florida Public Utilities Company will randomly perform full field verifications on a minimum of 10% of the participating homes. Homes not selected for the field review will have a telephone verification to validate the rebate information.
- No payments will be made until Florida Public Utilities Company verifies or validates rebate requests.
- Rebates and Incentives

	Customer Rebate	Dealer Incentive
Type 1	\$100.00	\$75.00
Type 2	\$100.00	\$25.00

Type 1 rebates and incentives are for a heat pump replacing resistance heat. Type 2 rebates and incentives are for a heat pump replacing a heat pump.

- The reporting requirements for this program will follow Rule 25-17.0021 (5), Florida Administrative Code. Additionally, program expenses will be identified in the ECCR True-up and Projection filings.

► **Benefits and Costs**

The Residential Building Energy Program (RBEP) was used to estimate energy consumption impacts. Based on the RBEP analysis for typical northwest Florida homes and the energy and demand savings reported for similar programs elsewhere, it is estimated that the Residential Heating and Cooling Efficiency Upgrade Program will yield demand and energy savings for both Type 1 and Type 2 changes. Both Type 1 and 2 changes yield an approximate average reduction in summer peak demand of 0.5 kW per participant. Energy savings for a Type 1 change was estimated at 1,800 kWh per year per participant while that for Type 2 was 900 kWh per year per participant.

Costs for the program are based on typical costs incurred for upgrading HVAC systems from 10 SEER to 12 SEER systems. These costs are about \$600 for Type 1 changes and \$500 for Type 2 changes.

► **Monitoring and Evaluation**

Florida Public Utilities Company will validate engineering analyses of energy and demand savings with billing data and by metering customer equipment. Reasons for program participation and non-participation will be assessed through interviews conducted with program participants, non-participants and dealers. Depending upon the level of participation, surveys may be conducted among customers having upgraded their systems to determine customer satisfaction with the upgrades.

► **Cost-Effectiveness**

This program is cost-effective using the Commission's approved methodology (Rule 25-17.008). The summary tables of demand and energy reductions are included in Attachment A. The cost-effectiveness FIRE model results are included in Attachment B.

Residential Heating & Cooling Efficiency Upgrade Program
Attachment A
Page 1 of 1

Florida Public Utilities Company
Residential Heating & Cooling Efficiency Upgrade Program

AT THE METER						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	1,473	1.28	0.50	16,200	14	6
2006	1,473	1.28	0.50	32,400	28	11
2007	1,473	1.28	0.50	50,400	44	17
2008	1,473	1.28	0.50	77,400	67	26
2009	1,473	1.28	0.50	117,900	101	40
2010	1,473	1.28	0.50	171,900	147	58
2011	1,473	1.28	0.50	239,400	205	80
2012	1,473	1.28	0.50	320,400	274	107
2013	1,473	1.28	0.50	414,900	355	139
2014	1,473	1.28	0.50	522,900	447	175

AT THE GENERATOR						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	1,549	1.57	0.5	17,042	17	6
2006	1,549	1.57	0.5	34,085	34	11
2007	1,549	1.57	0.5	53,021	53	17
2008	1,549	1.57	0.5	81,425	81	26
2009	1,549	1.57	0.5	124,031	124	40
2010	1,549	1.57	0.5	180,839	180	58
2011	1,549	1.57	0.5	251,849	251	80
2012	1,549	1.57	0.5	337,061	335	107
2013	1,549	1.57	0.5	436,475	434	139
2014	1,549	1.57	0.5	550,091	547	175

CUSTOMERS AND PARTICIPATION RATES					
YEAR	Total Number of Residential Customers	Total Number of Eligible Residential Customers	Annual Number of Program Participants	Total Penetration Level %	Cumulative Number of Program Participants
2005	23,414	37	11	30.0%	11
2006	23,883	37	11	30.0%	22
2007	24,360	40	12	30.0%	34
2008	24,847	60	18	30.0%	52
2009	25,344	90	27	30.0%	79
2010	25,851	120	36	30.0%	115
2011	26,368	150	45	30.0%	160
2012	26,896	180	54	30.0%	214
2013	27,433	210	63	30.0%	277
2014	27,982	240	72	30.0%	349

FLORIDA PUBLIC
UTILITIES



**Florida
Public
Utilities
Company**

Program Input Area

Program Participant's Rate Class = RS

Resistance Heat & A/C to Heat Pump (>11 SEER)

Program Input Assumptions & Parameters

Change in Customer's Coincident Peak kW (at the meter)	-0.50
Change in Customer's kWh use (at the meter)	-1,800
Program Life in Years	30
Change in Customer's Winter kW Peak	-1.85
Utility's Non-Recurring Programmatic Cost Per Customer	\$ 75.00
Utility's Recurring Cost Per Customer	\$ -
Utility Cost Escalation Rate (enter "infl" to use inflation)	infl
Customer Paid Equipment Costs	\$ 600.00
Cust. Equip Cost Escalation (enter "infl" to use inflation)	infl
Customer O&M Cost	\$ -
Customer O&M Cost Escalation (enter "infl" to use inflation)	infl
Customer Tax Credit per Installation	\$ -
Customer Tax Credit Escalation (enter "infl" to use inflation)	infl
Change in Supply Cost	\$ -
Supply Cost Escalation Rate (enter "infl" to use inflation)	infl
Utility Non Recurring Rebate/Incentive	\$ 100.00
Utility Recurring Rebate/Incentive	\$ -
Utility Rebate/Incent. Escal Rate (enter "infl" to use inflation)	infl
Base Year	2005
Level (1 = 115 kV >, 2 = Distribution Primary, 3 = Distribution Secondary)	3
Average Annual Change in Customer's Monthly Billing Demand	0.00
Adjust Participation for Free Riders? Yes = 1 No = 2	2

[illegible]

FLORIDA PUBLIC
UTILITIES



**Florida
Public
Utilities
Company**

Program Input Area

Program Participant's Rate Class = RS

Heat Pump (≤ 11 SEER) to Heat Pump (>11 SEER)

Program's New Participation Mid-Year Estimates

[illegible]

2005 Demand-Side Management Plan
June 1, 2004



Residential Heating & Cooling Efficiency Upgrade Program
Attachment B
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PSC Form CE 1.1

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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	-0.50	kW/Cus
(2) Change in Peak kW per Customer at generator	-0.61	kW Gen/Cus
(3) kW Line Loss Percentage	6.40%	
(4) Change in kWh per Customer at generator	(1,894)	kWh/Cus/Yr
(5) kWh Line Loss Percentage	5.20%	
(6) Group Line Loss Multiplier	1.00	
(7) Annual Change in Customer kWh at Meter	(1,800)	kWh/Cus/Yr
(8) Change in Winter kW per Cust at meter	-1.85	kW/Cus

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years
(2) Economic Life of Incremental Purchased Capacity	30	Years
(3) Economic Life of Incremental Distribution	30	Years
(4) K-Factor for Distribution Capacity	1.4153	

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	\$ 75.00	\$/Cus
(2) Utility Recurring Cost Per Customer	\$ -	\$/Cus/Year
(3) Utility Cost Escalation Rate	2.00%	
(4) Customer Equipment Cost	\$ 600.00	\$/Cus
(5) Customer Equipment Cost Escalation Rate	2.00%	
(6) Customer O&M Cost	\$ -	\$/Cus/Year
(7) Customer O&M Cost Escalation Rate	2.00%	
(8) Customer Tax Credit Per Installation	\$ -	\$/Cus
(9) Customer Tax Credit Escalation Rate	2.00%	
(10) Change in Supply Costs	\$ -	\$/Cus/Year
(11) Supply Costs Escalation Rate	2.00%	
(12) Utility Discount Rate	7.86%	
(13) Utility AFUDC Rate	0.00%	
(14) Utility Nonrecurring Rebate/Incentive	\$ 100.00	\$/Cus
(15) Utility Recurring Rebate/Incentive	\$ -	\$/Cus/Year
(16) Utility Rebate/Incentive Escalation Rate	2.00%	

* Supplemental information.

** These are N/A because FPU purchases all of its generation and transmission through wholesale purchased power contracts with JEA and Gulf Power.

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2005
(2) In-Service Year For Incremental Generation	N/A **
(3) In-Service Year For Distribution	2005
(4) Base Year Incremental Generation Cost	N/A **
(5) Base Year Incremental Transmission Cost	N/A **
(6) Base Year Incremental Distribution Cost	\$35.00 \$/kW
(7) Distribution Cost Escalation Rate	2.00%
(8) Generator Fixed O & M Cost	N/A **
(9) Generator Fixed O&M Escalation Rate	N/A **
(10) Transmission Fixed O & M Cost	N/A **
(11) Distribution Fixed O & M Cost	\$0.87 \$/kW/Yr
(12) Distribution Fixed O&M Escalation Rate	2.00%
(13) Incremental Gen Variable O & M Costs	N/A **
(14) Incre Gen Variable O&M Cost Esc Rate	N/A **
(15) Incremental Gen Capacity Factor	N/A **
(16) Incremental Purchased Energy Cost	\$0.0206 \$/kWh***
(17) Incremental Purchased Energy Cost Esc Rate	1.20%
(18) Incremental Purchased Capacity Cost	\$76.46 \$/kW/Yr***
(19) Incremental Purchased Capacity Cost Esc Rate	1.20%

Stop Revenue Loss at In-Service Year? No

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

(1) Nonpurchased Power Cost In Customer Bill (Base Year)	\$0.0137 \$/kWh
(2) Nonpurchased Power 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	0.00 kW/Mo.

Summary Results for This Analysis

	RIM	Participants ¹
NPV Benefits (\$000s)	\$ 177	\$ 161
NPV Costs (\$000s)	\$ 174	\$ 99
NPV Net Benefits (\$000s)	\$ 4	\$ 62
Benefit: Cost Ratio	1.020	1.626

*** These values are the weighted average wholesale power costs for 2004

2005 Demand-Side Management Plan
June 1, 2004



Residential Heating & Cooling Efficiency Upgrade Program
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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	-0.50	kW/Cus
(2) Change in Peak kW per Customer at generator	-0.61	kW Gen/Cus
(3) kW Line Loss Percentage	6.40%	
(4) Change in kWh per Customer at generator	(947)	kWh/Cus/Yr
(5) kWh Line Loss Percentage	5.20%	
(6) Group Line Loss Multiplier	1.00	
(7) Annual Change in Customer kWh at Meter	(900)	kWh/Cus/Yr
(8) Change in Winter kW per Cust at meter	-0.15	kW/Cus

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years
(2) Economic Life of Incremental Purchased Capacity	30	Years
(3) Economic Life of Incremental Distribution	30	Years
(4) K-Factor for Distribution Capacity	1.3517	

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	\$ 25.00	\$/Cus
(2) Utility Recurring Cost Per Customer	\$ -	\$/Cus/Year
(3) Utility Cost Escalation Rate	2.00%	
(4) Customer Equipment Cost	\$ 500.00	\$/Cus
(5) Customer Equipment Cost Escalation Rate	2.00%	
(6) Customer O&M Cost	\$ -	\$/Cus/Year
(7) Customer O&M Cost Escalation Rate	2.00%	
(8) Customer Tax Credit Per Installation	\$ -	\$/Cus
(9) Customer Tax Credit Escalation Rate	2.00%	
(10) Change in Supply Costs	\$ -	\$/Cus/Year
(11) Supply Costs Escalation Rate	2.00%	
(12) Utility Discount Rate	7.86%	
(13) Utility AFUDC Rate	0.00%	
(14) Utility Nonrecurring Rebate/Incentive	\$ 100.00	\$/Cus
(15) Utility Recurring Rebate/Incentive	\$ -	\$/Cus/Year
(16) Utility Rebate/Incentive Escalation Rate	2.00%	

- * Supplemental information.
- ** These are N/A because FPU purchases all of its generation and transmission through wholesale purchased power contracts with JEA and Gulf Power

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2005
(2) In-Service Year For Incremental Generation	N/A **
(3) In-Service Year For Distribution	2005
(4) Base Year Incremental Generation Cost	N/A **
(5) Base Year Incremental Transmission Cost	N/A **
(6) Base Year Incremental Distribution Cost	\$35.00 \$/kW
(7) Distribution Cost Escalation Rate	2.00%
(8) Generator Fixed O & M Cost	N/A **
(9) Generator Fixed O&M Escalation Rate	N/A **
(10) Transmission Fixed O & M Cost	N/A **
(11) Distribution Fixed O & M Cost	\$0.67 \$/kW/Yr
(12) Distribution Fixed O&M Escalation Rate	2.00%
(13) Incremental Gen Variable O & M Costs	N/A **
(14) Incre Gen Variable O&M Cost Esc Rate	N/A **
(15) Incremental Gen Capacity Factor	N/A **
(16) Incremental Purchased Energy Cost	\$0.0206 \$/kWh***
(17) Incremental Purchased Energy Cost Esc Rate	1.20%
(18) Incremental Purchased Capacity Cost	\$76.46 \$/kW/Yr***
(19) Incremental Purchased Capacity Cost Esc Rate	1.20%

Stop Revenue Loss at In-Service Year? No

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

(1) Nonpurchased Power Cost In Customer Bill (Base Year)	\$0.0137 \$/kWh
(2) Nonpurchased Power 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	0.00 kW/Mo.

Summary Results for This Analysis

	RIM	Participants*
NPV Benefits (\$000s)	\$ 70	\$ 45
NPV Costs (\$000s)	\$ 47	\$ 42
NPV Net Benefits (\$000s)	\$ 23	\$ 3
Benefit:Cost Ratio	1.481	1.077

*** These values are the weighted average wholesale power costs for 2004

2005 Demand-Side Management Plan
June 1, 2004



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INPUT DATA -- PART 2
Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code

1	2	3	4	5	6	7	8	9	10	11
Year	Cumulative Total Participating Customers	Cumulative Participating Customers Adj Free Rides	FPU's Purch. Power Cost In Ret. Rate (\$/kWh)	Marginal Fuel Cost (Decreases) (\$/kWh)	Marginal Fuel Cost (Increases) (\$/kWh)	Replacement Fuel Cost (\$/kWh)	Program kW Effectiveness Factor	Program kWh Effectiveness Factor	Other Costs (\$000)	Other Benefits (\$000)
2005	7	7	\$ 0.03379	\$ 0.02063	\$ 0.02063	\$ 0.03379	1.00	1.00	0.00	0.00
2006	14	14	\$ 0.03379	\$ 0.02091	\$ 0.02091	\$ 0.03379	1.00	1.00	0.00	0.00
2007	22	22	\$ 0.03379	\$ 0.02118	\$ 0.02118	\$ 0.03379	1.00	1.00	0.00	0.00
2008	34	34	\$ 0.03379	\$ 0.02144	\$ 0.02144	\$ 0.03379	1.00	1.00	0.00	0.00
2009	52	52	\$ 0.03379	\$ 0.02169	\$ 0.02169	\$ 0.03379	1.00	1.00	0.00	0.00
2010	76	76	\$ 0.03379	\$ 0.02195	\$ 0.02195	\$ 0.03379	1.00	1.00	0.00	0.00
2011	106	106	\$ 0.03379	\$ 0.02222	\$ 0.02222	\$ 0.03379	1.00	1.00	0.00	0.00
2012	142	142	\$ 0.03379	\$ 0.02248	\$ 0.02248	\$ 0.03379	1.00	1.00	0.00	0.00
2013	184	184	\$ 0.03379	\$ 0.02275	\$ 0.02275	\$ 0.03379	1.00	1.00	0.00	0.00
2014	232	232	\$ 0.03379	\$ 0.02303	\$ 0.02303	\$ 0.03379	1.00	1.00	0.00	0.00
2015	232	232	\$ 0.03379	\$ 0.02330	\$ 0.02330	\$ 0.03379	1.00	1.00	0.00	0.00
2016	232	232	\$ 0.03379	\$ 0.02358	\$ 0.02358	\$ 0.03379	1.00	1.00	0.00	0.00
2017	232	232	\$ 0.03379	\$ 0.02387	\$ 0.02387	\$ 0.03379	1.00	1.00	0.00	0.00
2018	232	232	\$ 0.03379	\$ 0.02415	\$ 0.02415	\$ 0.03379	1.00	1.00	0.00	0.00
2019	232	232	\$ 0.03379	\$ 0.02444	\$ 0.02444	\$ 0.03379	1.00	1.00	0.00	0.00
2020	232	232	\$ 0.03379	\$ 0.02474	\$ 0.02474	\$ 0.03379	1.00	1.00	0.00	0.00
2021	232	232	\$ 0.03379	\$ 0.02503	\$ 0.02503	\$ 0.03379	1.00	1.00	0.00	0.00
2022	232	232	\$ 0.03379	\$ 0.02533	\$ 0.02533	\$ 0.03379	1.00	1.00	0.00	0.00
2023	232	232	\$ 0.03379	\$ 0.02564	\$ 0.02564	\$ 0.03379	1.00	1.00	0.00	0.00
2024	232	232	\$ 0.03379	\$ 0.02594	\$ 0.02594	\$ 0.03379	1.00	1.00	0.00	0.00
2025	232	232	\$ 0.03379	\$ 0.02626	\$ 0.02626	\$ 0.03379	1.00	1.00	0.00	0.00
2026	232	232	\$ 0.03379	\$ 0.02657	\$ 0.02657	\$ 0.03379	1.00	1.00	0.00	0.00
2027	232	232	\$ 0.03379	\$ 0.02689	\$ 0.02689	\$ 0.03379	1.00	1.00	0.00	0.00
2028	232	232	\$ 0.03379	\$ 0.02721	\$ 0.02721	\$ 0.03379	1.00	1.00	0.00	0.00
2029	232	232	\$ 0.03379	\$ 0.02754	\$ 0.02754	\$ 0.03379	1.00	1.00	0.00	0.00
2030	232	232	\$ 0.03379	\$ 0.02787	\$ 0.02787	\$ 0.03379	1.00	1.00	0.00	0.00
2031	232	232	\$ 0.03379	\$ 0.02820	\$ 0.02820	\$ 0.03379	1.00	1.00	0.00	0.00
2032	232	232	\$ 0.03379	\$ 0.02854	\$ 0.02854	\$ 0.03379	1.00	1.00	0.00	0.00
2033	232	232	\$ 0.03379	\$ 0.02888	\$ 0.02888	\$ 0.03379	1.00	1.00	0.00	0.00
2034	232	232	\$ 0.03379	\$ 0.02923	\$ 0.02923	\$ 0.03379	1.00	1.00	0.00	0.00

2005 Demand-Side Management Plan
June 1, 2004



Residential Heating & Cooling Efficiency Upgrade Program
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INPUT DATA -- PART 2

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

1	2	3	4	5	6	7	8	9	10	11
Year	Cumulative Total Participating Customers	Cumulative Participating Customers Adj Free Rides	FPU's Purch. Power Cost in Ret. Rate (¢/kWh)	Marginal Fuel Cost (Decreases) (¢/kWh)	Marginal Fuel Cost (Increases) (¢/kWh)	Replacement Fuel Cost (¢/kWh)	Program kW Effectiveness Factor	Program kWh Effectiveness Factor	Other Costs (\$000)	Other Benefits (\$000)
2005	4	4	\$ 0.03379	\$ 0.02063	\$ 0.02063	\$ 0.03379	1.00	1.00	0.00	0.00
2006	8	8	\$ 0.03379	\$ 0.02091	\$ 0.02091	\$ 0.03379	1.00	1.00	0.00	0.00
2007	12	12	\$ 0.03379	\$ 0.02118	\$ 0.02118	\$ 0.03379	1.00	1.00	0.00	0.00
2008	18	18	\$ 0.03379	\$ 0.02144	\$ 0.02144	\$ 0.03379	1.00	1.00	0.00	0.00
2009	27	27	\$ 0.03379	\$ 0.02169	\$ 0.02169	\$ 0.03379	1.00	1.00	0.00	0.00
2010	39	39	\$ 0.03379	\$ 0.02195	\$ 0.02195	\$ 0.03379	1.00	1.00	0.00	0.00
2011	54	54	\$ 0.03379	\$ 0.02222	\$ 0.02222	\$ 0.03379	1.00	1.00	0.00	0.00
2012	72	72	\$ 0.03379	\$ 0.02248	\$ 0.02248	\$ 0.03379	1.00	1.00	0.00	0.00
2013	93	93	\$ 0.03379	\$ 0.02275	\$ 0.02275	\$ 0.03379	1.00	1.00	0.00	0.00
2014	117	117	\$ 0.03379	\$ 0.02303	\$ 0.02303	\$ 0.03379	1.00	1.00	0.00	0.00
2015	117	117	\$ 0.03379	\$ 0.02330	\$ 0.02330	\$ 0.03379	1.00	1.00	0.00	0.00
2016	117	117	\$ 0.03379	\$ 0.02358	\$ 0.02358	\$ 0.03379	1.00	1.00	0.00	0.00
2017	117	117	\$ 0.03379	\$ 0.02387	\$ 0.02387	\$ 0.03379	1.00	1.00	0.00	0.00
2018	117	117	\$ 0.03379	\$ 0.02415	\$ 0.02415	\$ 0.03379	1.00	1.00	0.00	0.00
2019	117	117	\$ 0.03379	\$ 0.02444	\$ 0.02444	\$ 0.03379	1.00	1.00	0.00	0.00
2020	117	117	\$ 0.03379	\$ 0.02474	\$ 0.02474	\$ 0.03379	1.00	1.00	0.00	0.00
2021	117	117	\$ 0.03379	\$ 0.02503	\$ 0.02503	\$ 0.03379	1.00	1.00	0.00	0.00
2022	117	117	\$ 0.03379	\$ 0.02533	\$ 0.02533	\$ 0.03379	1.00	1.00	0.00	0.00
2023	117	117	\$ 0.03379	\$ 0.02564	\$ 0.02564	\$ 0.03379	1.00	1.00	0.00	0.00
2024	117	117	\$ 0.03379	\$ 0.02594	\$ 0.02594	\$ 0.03379	1.00	1.00	0.00	0.00
2025	117	117	\$ 0.03379	\$ 0.02626	\$ 0.02626	\$ 0.03379	1.00	1.00	0.00	0.00
2026	117	117	\$ 0.03379	\$ 0.02657	\$ 0.02657	\$ 0.03379	1.00	1.00	0.00	0.00
2027	117	117	\$ 0.03379	\$ 0.02689	\$ 0.02689	\$ 0.03379	1.00	1.00	0.00	0.00
2028	117	117	\$ 0.03379	\$ 0.02721	\$ 0.02721	\$ 0.03379	1.00	1.00	0.00	0.00
2029	117	117	\$ 0.03379	\$ 0.02754	\$ 0.02754	\$ 0.03379	1.00	1.00	0.00	0.00
2030	117	117	\$ 0.03379	\$ 0.02787	\$ 0.02787	\$ 0.03379	1.00	1.00	0.00	0.00
2031	117	117	\$ 0.03379	\$ 0.02820	\$ 0.02820	\$ 0.03379	1.00	1.00	0.00	0.00
2032	117	117	\$ 0.03379	\$ 0.02854	\$ 0.02854	\$ 0.03379	1.00	1.00	0.00	0.00
2033	117	117	\$ 0.03379	\$ 0.02888	\$ 0.02888	\$ 0.03379	1.00	1.00	0.00	0.00
2034	117	117	\$ 0.03379	\$ 0.02923	\$ 0.02923	\$ 0.03379	1.00	1.00	0.00	0.00

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

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Incremental T&D Capacity and Incremental Fuel

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

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Incremental T&D Capacity and Incremental Fuel

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

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2005 Demand-Side Management Plan
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Residential Heating & Cooling Efficiency Upgrade Program
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Program Costs & Participants' B & C

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Worksheet for Utility Program Costs and Participants' Benefits & Costs

Utility Program Costs, Rebates, & Incentives								Participating Customers' Benefits and Costs								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Year	Annual Incremental KWH Generated (\$000)	Utility Nonrecurring Costs (\$000)	Utility Recurring Costs (\$000)	Total Utility Program Costs (\$000)	Utility Nonrecurring Rebates/Incent. (\$000)	Utility Recurring Rebates/Incent. (\$000)	Total Utility Paid Rebates/Incent. (\$000)	Participant Equipment Costs (\$000)	Participant O&M Costs (\$000)	Total Participant Costs (\$000)	Change in Participants' Billed kWh (\$000)	Change in Participants' Billed Fuel (\$000)	Change in Participants' Billed Non-Fuel (\$000)	Change in Participants' Electric Bills (\$000)		
2005	(13)	\$	1	\$	1	\$	-	1	\$	4	\$	(13)	\$	(0)	\$	(1)
2006	(27)	\$	1	\$	1	\$	-	1	\$	4	\$	(25)	\$	(1)	\$	(1)
2007	(42)	\$	1	\$	1	\$	-	1	\$	5	\$	(40)	\$	(1)	\$	(2)
2008	(64)	\$	1	\$	1	\$	-	1	\$	8	\$	(61)	\$	(2)	\$	(3)
2009	(96)	\$	1	\$	1	\$	-	2	\$	12	\$	(94)	\$	(3)	\$	(4)
2010	(144)	\$	2	\$	2	\$	-	3	\$	16	\$	(137)	\$	(5)	\$	(7)
2011	(201)	\$	3	\$	3	\$	-	3	\$	20	\$	(191)	\$	(6)	\$	(9)
2012	(266)	\$	3	\$	3	\$	-	4	\$	25	\$	(256)	\$	(9)	\$	(12)
2013	(348)	\$	4	\$	4	\$	-	5	\$	30	\$	(331)	\$	(11)	\$	(16)
2014	(439)	\$	4	\$	4	\$	-	6	\$	34	\$	(418)	\$	(14)	\$	(20)
2015	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2016	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2017	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2018	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2019	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2020	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2021	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2022	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2023	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2024	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2025	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2026	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2027	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2028	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2029	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2030	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2031	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2032	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2033	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)
2034	(439)	\$	-	\$	-	\$	-	-	\$	-	\$	(418)	\$	(14)	\$	(20)

2005 Demand-Side Management Plan
June 1, 2004



Residential Heating & Cooling Efficiency Upgrade Program
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Program Costs & Participants' B & C
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Worksheet for Utility Program Costs and Participants' Benefits & Costs

Utility Program Costs, Rebates, & Incentives								Participating Customers' Benefits and Costs						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Year	Annual Incremental kWh Generated (\$000s)	Utility Nonrecurring Costs (\$000s)	Utility Recurring Costs (\$000s)	Total Utility Program Costs (\$000s)	Utility Nonrecurring Rebates/Incent. (\$000s)	Utility Recurring Rebates/Incent. (\$000s)	Total Utility Paid Rebates/Incent. (\$000s)	Participant Equipment Costs (\$000s)	Participant O&M Costs (\$000s)	Total Participant Costs (\$000s)	Change in Participants' Billed kWh (\$000s)	Change in Participants' Billed Fuel (\$000s)	Change in Participants' Billed Non-Fuel (\$000s)	Change in Participants' Electric Bills (\$000s)
2005	(4)	\$	0	\$	0	\$	0	\$	2	\$	2	(4)	\$	(0)
2006	(8)	\$	0	\$	0	\$	0	\$	2	\$	2	(7)	\$	(0)
2007	(11)	\$	0	\$	0	\$	0	\$	2	\$	2	(11)	\$	(0)
2008	(17)	\$	0	\$	0	\$	1	\$	3	\$	3	(16)	\$	(0)
2009	(26)	\$	0	\$	0	\$	1	\$	5	\$	5	(24)	\$	(0)
2010	(37)	\$	0	\$	0	\$	1	\$	7	\$	7	(35)	\$	(0)
2011	(51)	\$	0	\$	0	\$	2	\$	8	\$	8	(49)	\$	(0)
2012	(68)	\$	1	\$	1	\$	2	\$	10	\$	10	(65)	\$	(0)
2013	(88)	\$	1	\$	1	\$	2	\$	12	\$	12	(84)	\$	(0)
2014	(111)	\$	1	\$	1	\$	3	\$	14	\$	14	(105)	\$	(0)
2015	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2016	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2017	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2018	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2019	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2020	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2021	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2022	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2023	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2024	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2025	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2026	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2027	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2028	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2029	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2030	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2031	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2032	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2033	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
2034	(111)	\$	-	\$	-	\$	-	\$	-	\$	-	(105)	\$	(0)
Nominal	\$	(2,630)	\$	3	\$	3	\$	13	\$	66	\$	(2,506)	\$	(85)
NPV	\$	(812)	\$	2	\$	2	\$	8	\$	42	\$	(772)	\$	(26)

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1	2	3	4	5	6	7	8	9	10	11	12	13
	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 Distribution Cap Costs (\$000s)	Incremental Prog Induced Fuel Costs (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits (\$000s)	Cumulative Discounted Net Benefits (\$000s)
Year												
2005	\$ - \$	1 \$	4 \$	- \$	- \$	(0) \$	(0) \$	(0) \$	5 \$	1 \$	(4) \$	(4) \$
2006	\$ - \$	1 \$	4 \$	- \$	- \$	(1) \$	(0) \$	(1) \$	5 \$	1 \$	(4) \$	(7) \$
2007	\$ - \$	1 \$	5 \$	- \$	- \$	(1) \$	(0) \$	(1) \$	6 \$	2 \$	(4) \$	(11) \$
2008	\$ - \$	1 \$	8 \$	- \$	- \$	(2) \$	(0) \$	(2) \$	9 \$	3 \$	(5) \$	(15) \$
2009	\$ - \$	1 \$	12 \$	- \$	- \$	(3) \$	(0) \$	(3) \$	13 \$	5 \$	(8) \$	(21) \$
2010	\$ - \$	2 \$	16 \$	- \$	- \$	(4) \$	(0) \$	(4) \$	18 \$	7 \$	(11) \$	(28) \$
2011	\$ - \$	3 \$	20 \$	- \$	- \$	(5) \$	(0) \$	(5) \$	23 \$	10 \$	(13) \$	(37) \$
2012	\$ - \$	3 \$	25 \$	- \$	- \$	(7) \$	(0) \$	(6) \$	28 \$	14 \$	(14) \$	(45) \$
2013	\$ - \$	4 \$	30 \$	- \$	- \$	(9) \$	(1) \$	(8) \$	33 \$	18 \$	(15) \$	(53) \$
2014	\$ - \$	4 \$	34 \$	- \$	- \$	(12) \$	(1) \$	(10) \$	39 \$	23 \$	(16) \$	(61) \$
2015	\$ - \$	- \$	- \$	- \$	- \$	(12) \$	(1) \$	(10) \$	- \$	23 \$	23 \$	(50) \$
2016	\$ - \$	- \$	- \$	- \$	- \$	(12) \$	(1) \$	(10) \$	- \$	23 \$	23 \$	(40) \$
2017	\$ - \$	- \$	- \$	- \$	- \$	(12) \$	(1) \$	(10) \$	- \$	24 \$	24 \$	(31) \$
2018	\$ - \$	- \$	- \$	- \$	- \$	(13) \$	(1) \$	(11) \$	- \$	24 \$	24 \$	(22) \$
2019	\$ - \$	- \$	- \$	- \$	- \$	(13) \$	(1) \$	(11) \$	- \$	24 \$	24 \$	(13) \$
2020	\$ - \$	- \$	- \$	- \$	- \$	(13) \$	(1) \$	(11) \$	- \$	25 \$	25 \$	(5) \$
2021	\$ - \$	- \$	- \$	- \$	- \$	(13) \$	(1) \$	(11) \$	- \$	25 \$	25 \$	2
2022	\$ - \$	- \$	- \$	- \$	- \$	(13) \$	(1) \$	(11) \$	- \$	25 \$	25 \$	9
2023	\$ - \$	- \$	- \$	- \$	- \$	(13) \$	(1) \$	(11) \$	- \$	25 \$	25 \$	15
2024	\$ - \$	- \$	- \$	- \$	- \$	(14) \$	(1) \$	(11) \$	- \$	26 \$	26 \$	22
2025	\$ - \$	- \$	- \$	- \$	- \$	(14) \$	(1) \$	(12) \$	- \$	26 \$	26 \$	27
2026	\$ - \$	- \$	- \$	- \$	- \$	(14) \$	(1) \$	(12) \$	- \$	26 \$	26 \$	33
2027	\$ - \$	- \$	- \$	- \$	- \$	(14) \$	(1) \$	(12) \$	- \$	27 \$	27 \$	38
2028	\$ - \$	- \$	- \$	- \$	- \$	(14) \$	(1) \$	(12) \$	- \$	27 \$	27 \$	43
2029	\$ - \$	- \$	- \$	- \$	- \$	(14) \$	(1) \$	(12) \$	- \$	27 \$	27 \$	47
2030	\$ - \$	- \$	- \$	- \$	- \$	(15) \$	(1) \$	(12) \$	- \$	28 \$	28 \$	51
2031	\$ - \$	- \$	- \$	- \$	- \$	(15) \$	(1) \$	(12) \$	- \$	28 \$	28 \$	55
2032	\$ - \$	- \$	- \$	- \$	- \$	(15) \$	(1) \$	(13) \$	- \$	28 \$	28 \$	59
2033	\$ - \$	- \$	- \$	- \$	- \$	(15) \$	(1) \$	(13) \$	- \$	29 \$	29 \$	62
2034	\$ - \$	- \$	- \$	- \$	- \$	(15) \$	(1) \$	(13) \$	- \$	29 \$	29 \$	66
Nominal NPV	\$ - \$	20 \$	158 \$	- \$	- \$	(317) \$	(20) \$	(267) \$	177 \$	604 \$	426 \$	
	\$ - \$	12 \$	99 \$	- \$	- \$	(93) \$	(6) \$	(78) \$	112 \$	177 \$	66 \$	

2005 Demand-Side Management Plan
June 1, 2004



Residential Heating & Cooling Efficiency Upgrade Program
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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 Distribution Cap Costs (\$000s)	Incremental Prog Induced Fuel Costs (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits (\$000s)	Cumulative Discounted Net Benefits (\$000s)
2005	\$ -	\$ -	0	\$ 2	\$ -	\$ (0)	\$ (0)	\$ (0)	\$ 2	\$ 0	\$ (2)	\$ (2)
2006	\$ -	\$ -	0	\$ 2	\$ -	\$ (0)	\$ (0)	\$ (0)	\$ 2	\$ 1	\$ (2)	\$ (3)
2007	\$ -	\$ -	0	\$ 2	\$ -	\$ (1)	\$ (0)	\$ (0)	\$ 2	\$ 1	\$ (1)	\$ (4)
2008	\$ -	\$ -	0	\$ 3	\$ -	\$ (1)	\$ (0)	\$ (0)	\$ 3	\$ 1	\$ (2)	\$ (6)
2009	\$ -	\$ -	0	\$ 5	\$ -	\$ (1)	\$ (0)	\$ (1)	\$ 5	\$ 2	\$ (3)	\$ (8)
2010	\$ -	\$ -	0	\$ 7	\$ -	\$ (2)	\$ (0)	\$ (1)	\$ 7	\$ 3	\$ (4)	\$ (11)
2011	\$ -	\$ -	0	\$ 8	\$ -	\$ (3)	\$ (0)	\$ (1)	\$ 9	\$ 4	\$ (5)	\$ (14)
2012	\$ -	\$ -	1	\$ 10	\$ -	\$ (4)	\$ (0)	\$ (2)	\$ 11	\$ 5	\$ (5)	\$ (18)
2013	\$ -	\$ -	1	\$ 12	\$ -	\$ (5)	\$ (0)	\$ (2)	\$ 13	\$ 7	\$ (6)	\$ (21)
2014	\$ -	\$ -	1	\$ 14	\$ -	\$ (6)	\$ (0)	\$ (3)	\$ 15	\$ 9	\$ (6)	\$ (24)
2015	\$ -	\$ -	-	\$ -	\$ -	\$ (6)	\$ (0)	\$ (3)	\$ -	\$ 9	\$ 9	\$ (20)
2016	\$ -	\$ -	-	\$ -	\$ -	\$ (6)	\$ (0)	\$ (3)	\$ -	\$ 9	\$ 9	\$ (16)
2017	\$ -	\$ -	-	\$ -	\$ -	\$ (6)	\$ (0)	\$ (3)	\$ -	\$ 9	\$ 9	\$ (12)
2018	\$ -	\$ -	-	\$ -	\$ -	\$ (6)	\$ (0)	\$ (3)	\$ -	\$ 9	\$ 9	\$ (8)
2019	\$ -	\$ -	-	\$ -	\$ -	\$ (6)	\$ (0)	\$ (3)	\$ -	\$ 10	\$ 10	\$ (5)
2020	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 10	\$ 10	\$ (2)
2021	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 10	\$ 10	\$ 1
2022	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 10	\$ 10	\$ 4
2023	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 10	\$ 10	\$ 6
2024	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 10	\$ 10	\$ 9
2025	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 10	\$ 10	\$ 11
2026	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 10	\$ 10	\$ 13
2027	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 11	\$ 11	\$ 15
2028	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 11	\$ 11	\$ 17
2029	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 11	\$ 11	\$ 19
2030	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 11	\$ 11	\$ 20
2031	\$ -	\$ -	-	\$ -	\$ -	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ 11	\$ 11	\$ 22
2032	\$ -	\$ -	-	\$ -	\$ -	\$ (8)	\$ (0)	\$ (3)	\$ -	\$ 11	\$ 11	\$ 23
2033	\$ -	\$ -	-	\$ -	\$ -	\$ (8)	\$ (1)	\$ (3)	\$ -	\$ 11	\$ 11	\$ 25
2034	\$ -	\$ -	-	\$ -	\$ -	\$ (8)	\$ (1)	\$ (3)	\$ -	\$ 11	\$ 11	\$ 26
Nominal	\$ -	\$ 3	\$ 66	\$ -	\$ -	\$ (160)	\$ (10)	\$ (67)	\$ 70	\$ 237	\$ 168	
NPV	\$ -	\$ 2	\$ 42	\$ -	\$ -	\$ (47)	\$ (3)	\$ (20)	\$ 44	\$ 70	\$ 26	

2005 Demand-Side Management Plan
June 1, 2004



Residential Heating & Cooling Efficiency Upgrade Program
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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)
2005	\$ 4	\$ -	\$ -	\$ -	\$ (1)	\$ -	\$ 1	\$ 4	\$ 1	\$ (3)	\$ (3)
2006	\$ 4	\$ -	\$ -	\$ -	\$ (1)	\$ -	\$ 1	\$ 4	\$ 2	\$ (2)	\$ (5)
2007	\$ 5	\$ -	\$ -	\$ -	\$ (2)	\$ -	\$ 1	\$ 5	\$ 3	\$ (2)	\$ (7)
2008	\$ 8	\$ -	\$ -	\$ -	\$ (3)	\$ -	\$ 1	\$ 8	\$ 4	\$ (3)	\$ (10)
2009	\$ 12	\$ -	\$ -	\$ -	\$ (4)	\$ -	\$ 2	\$ 12	\$ 6	\$ (5)	\$ (14)
2010	\$ 16	\$ -	\$ -	\$ -	\$ (7)	\$ -	\$ 3	\$ 16	\$ 9	\$ (7)	\$ (18)
2011	\$ 20	\$ -	\$ -	\$ -	\$ (9)	\$ -	\$ 3	\$ 20	\$ 12	\$ (8)	\$ (23)
2012	\$ 25	\$ -	\$ -	\$ -	\$ (12)	\$ -	\$ 4	\$ 25	\$ 16	\$ (9)	\$ (28)
2013	\$ 30	\$ -	\$ -	\$ -	\$ (16)	\$ -	\$ 5	\$ 30	\$ 21	\$ (9)	\$ (33)
2014	\$ 34	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ 6	\$ 34	\$ 26	\$ (9)	\$ (38)
2015	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (28)
2016	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (20)
2017	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (12)
2018	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (4)
2019	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 3
2020	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 9
2021	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 15
2022	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 20
2023	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 25
2024	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 30
2025	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 35
2026	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 39
2027	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 42
2028	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 46
2029	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 49
2030	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 52
2031	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 55
2032	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 57
2033	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 60
2034	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 62
Nominal	\$ 158	\$ -	\$ -	\$ -	\$ (471)	\$ -	\$ 26	\$ 158	\$ 498	\$ 340	
NPV	\$ 99	\$ -	\$ -	\$ -	\$ (145)	\$ -	\$ 17	\$ 99	\$ 161	\$ 62	

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

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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)
2005	\$ -	\$ 1	\$ 1	\$ (1)	\$ (0)	\$ (0)	\$ (0)	\$ -	\$ -	\$ 2	\$ 1	\$ (1)	\$ (1)
2006	\$ -	\$ 1	\$ 1	\$ (1)	\$ (1)	\$ (0)	\$ (1)	\$ -	\$ -	\$ 2	\$ 1	\$ (1)	\$ (2)
2007	\$ -	\$ 1	\$ 1	\$ (2)	\$ (1)	\$ (0)	\$ (1)	\$ -	\$ -	\$ 3	\$ 2	\$ (1)	\$ (3)
2008	\$ -	\$ 1	\$ 1	\$ (3)	\$ (2)	\$ (0)	\$ (1)	\$ -	\$ -	\$ 5	\$ 3	\$ (2)	\$ (5)
2009	\$ -	\$ 1	\$ 2	\$ (4)	\$ (3)	\$ (0)	\$ (2)	\$ -	\$ -	\$ 8	\$ 5	\$ (3)	\$ (7)
2010	\$ -	\$ 2	\$ 3	\$ (7)	\$ (4)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 11	\$ 7	\$ (4)	\$ (10)
2011	\$ -	\$ 3	\$ 3	\$ (9)	\$ (5)	\$ (0)	\$ (4)	\$ -	\$ -	\$ 15	\$ 10	\$ (5)	\$ (13)
2012	\$ -	\$ 3	\$ 4	\$ (12)	\$ (7)	\$ (0)	\$ (6)	\$ -	\$ -	\$ 19	\$ 14	\$ (6)	\$ (17)
2013	\$ -	\$ 4	\$ 5	\$ (16)	\$ (9)	\$ (1)	\$ (8)	\$ -	\$ -	\$ 24	\$ 18	\$ (6)	\$ (20)
2014	\$ -	\$ 4	\$ 6	\$ (20)	\$ (12)	\$ (1)	\$ (10)	\$ -	\$ -	\$ 30	\$ 23	\$ (7)	\$ (24)
2015	\$ -	\$ -	\$ -	\$ (20)	\$ (12)	\$ (1)	\$ (10)	\$ -	\$ -	\$ 20	\$ 23	\$ 3	\$ (22)
2016	\$ -	\$ -	\$ -	\$ (20)	\$ (12)	\$ (1)	\$ (10)	\$ -	\$ -	\$ 20	\$ 23	\$ 4	\$ (21)
2017	\$ -	\$ -	\$ -	\$ (20)	\$ (12)	\$ (1)	\$ (10)	\$ -	\$ -	\$ 20	\$ 24	\$ 4	\$ (19)
2018	\$ -	\$ -	\$ -	\$ (20)	\$ (13)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 24	\$ 4	\$ (17)
2019	\$ -	\$ -	\$ -	\$ (20)	\$ (13)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 24	\$ 4	\$ (16)
2020	\$ -	\$ -	\$ -	\$ (20)	\$ (13)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 25	\$ 5	\$ (14)
2021	\$ -	\$ -	\$ -	\$ (20)	\$ (13)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 25	\$ 5	\$ (13)
2022	\$ -	\$ -	\$ -	\$ (20)	\$ (13)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 25	\$ 5	\$ (11)
2023	\$ -	\$ -	\$ -	\$ (20)	\$ (13)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 25	\$ 6	\$ (10)
2024	\$ -	\$ -	\$ -	\$ (20)	\$ (14)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 26	\$ 6	\$ (9)
2025	\$ -	\$ -	\$ -	\$ (20)	\$ (14)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 26	\$ 6	\$ (7)
2026	\$ -	\$ -	\$ -	\$ (20)	\$ (14)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 26	\$ 7	\$ (6)
2027	\$ -	\$ -	\$ -	\$ (20)	\$ (14)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 27	\$ 7	\$ (5)
2028	\$ -	\$ -	\$ -	\$ (20)	\$ (14)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 27	\$ 7	\$ (3)
2029	\$ -	\$ -	\$ -	\$ (20)	\$ (14)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 27	\$ 8	\$ (2)
2030	\$ -	\$ -	\$ -	\$ (20)	\$ (15)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 28	\$ 8	\$ (1)
2031	\$ -	\$ -	\$ -	\$ (20)	\$ (15)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 28	\$ 8	\$ 0
2032	\$ -	\$ -	\$ -	\$ (20)	\$ (15)	\$ (1)	\$ (13)	\$ -	\$ -	\$ 20	\$ 28	\$ 9	\$ 1
2033	\$ -	\$ -	\$ -	\$ (20)	\$ (15)	\$ (1)	\$ (13)	\$ -	\$ -	\$ 20	\$ 29	\$ 9	\$ 2
2034	\$ -	\$ -	\$ -	\$ (20)	\$ (15)	\$ (1)	\$ (13)	\$ -	\$ -	\$ 20	\$ 29	\$ 9	\$ 4
Nominal NPV	\$ -	\$ 20	\$ 26	\$ (471)	\$ (317)	\$ (20)	\$ (267)	\$ -	\$ -	\$ 517	\$ 604	\$ 87	
	\$ -	\$ 12	\$ 17	\$ (145)	\$ (93)	\$ (6)	\$ (78)	\$ -	\$ -	\$ 174	\$ 177	\$ 4	

2005 Demand-Side Management Plan
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Residential Heating & Cooling Efficiency Upgrade Program
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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
	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)
Year													
2005	\$ -	\$ 0	\$ 0	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ -	\$ -	\$ 1	\$ 0	\$ (0)	\$ (0)
2006	\$ -	\$ 0	\$ 0	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ -	\$ -	\$ 1	\$ 1	\$ (0)	\$ (1)
2007	\$ -	\$ 0	\$ 0	\$ (1)	\$ (1)	\$ (0)	\$ (0)	\$ -	\$ -	\$ 1	\$ 1	\$ (0)	\$ (1)
2008	\$ -	\$ 0	\$ 1	\$ (1)	\$ (1)	\$ (0)	\$ (0)	\$ -	\$ -	\$ 2	\$ 1	\$ (0)	\$ (1)
2009	\$ -	\$ 0	\$ 1	\$ (1)	\$ (1)	\$ (0)	\$ (1)	\$ -	\$ -	\$ 2	\$ 2	\$ (0)	\$ (1)
2010	\$ -	\$ 0	\$ 1	\$ (2)	\$ (2)	\$ (0)	\$ (1)	\$ -	\$ -	\$ 3	\$ 3	\$ (0)	\$ (2)
2011	\$ -	\$ 0	\$ 2	\$ (2)	\$ (3)	\$ (0)	\$ (1)	\$ -	\$ -	\$ 4	\$ 4	\$ (0)	\$ (2)
2012	\$ -	\$ 1	\$ 2	\$ (3)	\$ (4)	\$ (0)	\$ (2)	\$ -	\$ -	\$ 6	\$ 5	\$ (0)	\$ (2)
2013	\$ -	\$ 1	\$ 2	\$ (4)	\$ (5)	\$ (0)	\$ (2)	\$ -	\$ -	\$ 7	\$ 7	\$ (0)	\$ (2)
2014	\$ -	\$ 1	\$ 3	\$ (5)	\$ (6)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 9	\$ 9	\$ 0	\$ (2)
2015	\$ -	\$ -	\$ -	\$ (5)	\$ (6)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 9	\$ 4	\$ (0)
2016	\$ -	\$ -	\$ -	\$ (5)	\$ (6)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 9	\$ 4	\$ 2
2017	\$ -	\$ -	\$ -	\$ (5)	\$ (6)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 9	\$ 4	\$ 3
2018	\$ -	\$ -	\$ -	\$ (5)	\$ (6)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 9	\$ 4	\$ 5
2019	\$ -	\$ -	\$ -	\$ (5)	\$ (6)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 10	\$ 5	\$ 7
2020	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 10	\$ 5	\$ 8
2021	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 10	\$ 5	\$ 10
2022	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 10	\$ 5	\$ 11
2023	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 10	\$ 5	\$ 12
2024	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 10	\$ 5	\$ 13
2025	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 10	\$ 5	\$ 15
2026	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 10	\$ 5	\$ 16
2027	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 11	\$ 5	\$ 17
2028	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 11	\$ 6	\$ 18
2029	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 11	\$ 6	\$ 19
2030	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 11	\$ 6	\$ 20
2031	\$ -	\$ -	\$ -	\$ (5)	\$ (7)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 11	\$ 6	\$ 20
2032	\$ -	\$ -	\$ -	\$ (5)	\$ (8)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 5	\$ 11	\$ 6	\$ 21
2033	\$ -	\$ -	\$ -	\$ (5)	\$ (8)	\$ (1)	\$ (3)	\$ -	\$ -	\$ 5	\$ 11	\$ 6	\$ 22
2034	\$ -	\$ -	\$ -	\$ (5)	\$ (8)	\$ (1)	\$ (3)	\$ -	\$ -	\$ 5	\$ 11	\$ 6	\$ 23

Residential Ceiling Insulation Upgrade Program

► Program Description

The purpose of this program is to reduce peak demand and energy consumption by decreasing the load presented by residential air-conditioning and heating equipment. To serve this purpose, this program requires that residential customers add at least R-11 of ceiling insulation. By doing so, they will qualify for an incentive of \$100.00 in the form of an Insulation Certificate that may be applied to the total cost of installing the added ceiling insulation.

Interested residential customers must request a free ceiling insulation inspection. Florida Public Utilities Company will then dispatch an energy efficiency expert to perform that inspection and determine what changes should be made to enhance efficiency. The inspection will also determine the customer's eligibility for the \$100 Insulation Certificate. If the customer desires it, Florida Public Utilities Company will also help them find a qualified contractor to do the needed upgrade.

► Participation Standards

- Homes must not be covered by a new-home warranty.
- Homes must have electric whole house air-conditioning or heating. Residences with nonelectric heating are eligible provided they have electric whole house air-conditioning.
- Customers must add a minimum insulation value of R-11 based on a manufacturer's specification card. Resulting total R-values achieved will range from R-30 to R-38. Where the roof pitch limits accessibility, R-11 must be added.
- Customers are required to sign off on the number of bags of insulation installed.
- Insulation Certificates will be issued through either energy audits or by direct evaluation of existing levels of insulation.
- Either the insulation contractor or the residential customer must submit the Insulation Certificate to Florida Public Utilities Company.
- Florida Public Utilities Company will randomly perform full field verifications on at least 10% of the participating homes. Homes that are not selected for the full field verification will have a telephone verification to validate the information.

- No payment will be made until Florida Public Utilities Company verifies or validates the Insulation Certificates.
- The contractor/customer incentive payment is \$100 per residence.
- The reporting requirements for this program will follow Rule 25-17.0021 (5), of the Florida Administrative Code. Program expenses will be identified in the ECCR True-up and Projection filings.

► **Benefits and Costs**

The Residential Building Energy Program (RBEP) was used to estimate energy consumption impacts. Based on the RBEP analysis for typical northwest Florida homes, it is estimated that the Residential Ceiling Insulation Upgrade Program yields an approximate average reduction in summer peak demand of 0.4 kW per participant, and an annual average energy reduction of 1,216 kWh per participant.

Costs for the program are based on typical costs incurred for upgrading attic insulation from existing levels to between R-30 and R-38. These average estimated costs per customer are about \$595.00 before a qualifying rebate.

► **Monitoring and Evaluation**

Florida Public Utilities Company will validate engineering analyses of energy and demand savings with billing data and by metering participant's homes. Reasons for program participation and non-participation will be assessed through interviews conducted with program participants and non-participants. Depending upon the level of participation, surveys may be conducted among customers having upgraded their insulation levels to determine customer satisfaction.

► **Cost-Effectiveness**

This program is cost-effective using the Commission's approved methodology (Rule 25-17.008). The summary tables of demand and energy reductions are included in Attachment A. The cost-effectiveness FIRE model results are included in Attachment B.

Florida Public Utilities Company
Residential Ceiling Insulation Upgrade Program

AT THE METER						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	1,216	2.05	0.40	13,376	23	4
2006	1,216	2.05	0.40	26,752	45	9
2007	1,216	2.05	0.40	41,344	70	14
2008	1,216	2.05	0.40	63,232	107	21
2009	1,216	2.05	0.40	96,064	162	32
2010	1,216	2.05	0.40	139,840	236	46
2011	1,216	2.05	0.40	194,560	328	64
2012	1,216	2.05	0.40	260,224	439	86
2013	1,216	2.05	0.40	336,832	568	111
2014	1,216	2.05	0.40	424,384	715	140

AT THE GENERATOR						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	1,279	2.51	0.49	14,072	28	5
2006	1,279	2.51	0.49	28,143	55	11
2007	1,279	2.51	0.49	43,494	85	17
2008	1,279	2.51	0.49	66,520	130	25
2009	1,279	2.51	0.49	101,059	198	39
2010	1,279	2.51	0.49	147,112	288	56
2011	1,279	2.51	0.49	204,677	401	78
2012	1,279	2.51	0.49	273,756	537	105
2013	1,279	2.51	0.49	354,347	695	136
2014	1,279	2.51	0.49	446,452	875	171

CUSTOMERS AND PARTICIPATION RATES					
YEAR	Total Number of Residential Customers	Total Number of Eligible Residential Customers	Annual Number of Program Participants	Total Penetration Level %	Cumulative Number of Program Participants
2005	23,414	37	11	30.0%	11
2006	23,883	37	11	30.0%	22
2007	24,360	40	12	30.0%	34
2008	24,847	60	18	30.0%	52
2009	25,344	90	27	30.0%	79
2010	25,851	120	36	30.0%	115
2011	26,368	150	45	30.0%	160
2012	26,896	180	54	30.0%	214
2013	27,433	210	63	30.0%	277
2014	27,982	240	72	30.0%	349

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**Florida
Public
Utilities
Company**

2005 Demand-Side Management Plan
June 1, 2004



Residential Ceiling Insulation Program
Attachment B
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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	-0.40	kW/Cus
(2) Change in Peak kW per Customer at generator	-0.49	kW Gen/Cus
(3) kW Line Loss Percentage	6.40%	
(4) Change in kWh per Customer at generator	(1,279)	kWh/Cus/Yr
(5) kWh Line Loss Percentage	5.20%	
(6) Group Line Loss Multiplier	1.00	
(7) Annual Change in Customer kWh at Meter	(1,216)	kWh/Cus/Yr
(8) Change in Winter kW per Cust at meter	-2.05	kW/Cus

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years
(2) Economic Life of Incremental Purchased Capacity	30	Years
(3) Economic Life of Incremental Distribution	30	Years
(4) K-Factor for Distribution Capacity	1.4506	

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	\$ -	\$/Cus
(2) Utility Recurring Cost Per Customer	\$ -	\$/Cus/Year
(3) Utility Cost Escalation Rate	2.00%	
(4) Customer Equipment Cost	\$ 595.00	\$/Cus
(5) Customer Equipment Cost Escalation Rate	2.00%	
(6) Customer O&M Cost	\$ -	\$/Cus/Year
(7) Customer O&M Cost Escalation Rate	2.00%	
(8) Customer Tax Credit Per Installation	\$ -	\$/Cus
(9) Customer Tax Credit Escalation Rate	2.00%	
(10) Change in Supply Costs	\$ -	\$/Cus/Year
(11) Supply Costs Escalation Rate	2.00%	
(12) Utility Discount Rate	7.86%	
(13) Utility AFUDC Rate	0.00%	
(14) Utility Nonrecurring Rebate/Incentive	\$ 100.00	\$/Cus
(15) Utility Recurring Rebate/Incentive	\$ -	\$/Cus/Year
(16) Utility Rebate/Incentive Escalation Rate	0.00%	

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2005	
(2) In-Service Year For Incremental Generation	N/A	**
(3) In-Service Year For Distribution	2005	
(4) Base Year Incremental Generation Cost	N/A	**
(5) Base Year Incremental Transmission Cost	N/A	**
(6) Base Year Incremental Distribution Cost	\$35.00	\$/kW
(7) Distribution Cost Escalation Rate	2.00%	
(8) Generator Fixed O & M Cost	N/A	**
(9) Generator Fixed O&M Escalation Rate	N/A	**
(10) Transmission Fixed O & M Cost	N/A	**
(11) Distribution Fixed O & M Cost	\$0.87	\$/kW/Yr
(12) Distribution Fixed O&M Escalation Rate	2.00%	
(13) Incremental Gen Variable O & M Costs	N/A	**
(14) Incre Gen Variable O&M Cost Esc Rate	N/A	**
(15) Incremental Gen Capacity Factor	N/A	**
(16) Incremental Purchased Energy Cost	\$0.0206	\$/kWh***
(17) Incremental Purchased Energy Cost Esc Rate	1.20%	
(18) Incremental Purchased Capacity Cost	\$76.46	\$/kW/Yr***
(19) Incremental Purchased Capacity Cost Esc Rate	1.20%	

Stop Revenue Loss at In-Service Year?

No

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

(1) Nonpurchased Power Cost In Customer Bill (Base Year)	\$0.0137	\$/kWh
(2) Nonpurchased Power 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	0.00	kW/Mo.

Summary Results for This Analysis

	RIM	Participants*
NPV Benefits (\$000s)	\$ 199	\$ 169
NPV Costs (\$000s)	\$ 169	\$ 148
NPV Net Benefits (\$000s)	\$ 29	\$ 21
Benefit:Cost Ratio	1.174	1.145

* Supplemental information.

*** These values are the weighted average wholesale power costs for 2004

** These are N/A because FPU purchases all of its generation and transmission through wholesale purchased power contracts with JEA and Gulf Power

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	Cumulative Total Participating Customers	Cumulative Participating Customers Adj Free Rides	FPU's Purch. Power Cost in Ret. Rate (\$/kWh)	Marginal Fuel Cost (Decreases) (\$/kWh)	Marginal Fuel Cost (Increases) (\$/kWh)	Replacement Fuel Cost (\$/kWh)	Program kW Effectiveness Factor	Program kWh Effectiveness Factor	Other Costs (\$000)	Other Benefits (\$000)
Year	Customers	Adj Free Rides	(\$/kWh)	(\$/kWh)	(\$/kWh)	(\$/kWh)	Factor	Factor	(\$000)	(\$000)
2005	11	11	\$ 0.03379	\$ 0.02063	\$ 0.02063	\$ 0.03379	1.00	1.00	0.00	0.00
2006	22	22	\$ 0.03379	\$ 0.02091	\$ 0.02091	\$ 0.03379	1.00	1.00	0.00	0.00
2007	34	34	\$ 0.03379	\$ 0.02118	\$ 0.02118	\$ 0.03379	1.00	1.00	0.00	0.00
2008	52	52	\$ 0.03379	\$ 0.02144	\$ 0.02144	\$ 0.03379	1.00	1.00	0.00	0.00
2009	79	79	\$ 0.03379	\$ 0.02169	\$ 0.02169	\$ 0.03379	1.00	1.00	0.00	0.00
2010	115	115	\$ 0.03379	\$ 0.02195	\$ 0.02195	\$ 0.03379	1.00	1.00	0.00	0.00
2011	160	160	\$ 0.03379	\$ 0.02222	\$ 0.02222	\$ 0.03379	1.00	1.00	0.00	0.00
2012	214	214	\$ 0.03379	\$ 0.02248	\$ 0.02248	\$ 0.03379	1.00	1.00	0.00	0.00
2013	277	277	\$ 0.03379	\$ 0.02275	\$ 0.02275	\$ 0.03379	1.00	1.00	0.00	0.00
2014	349	349	\$ 0.03379	\$ 0.02303	\$ 0.02303	\$ 0.03379	1.00	1.00	0.00	0.00
2015	349	349	\$ 0.03379	\$ 0.02330	\$ 0.02330	\$ 0.03379	1.00	1.00	0.00	0.00
2016	349	349	\$ 0.03379	\$ 0.02358	\$ 0.02358	\$ 0.03379	1.00	1.00	0.00	0.00
2017	349	349	\$ 0.03379	\$ 0.02387	\$ 0.02387	\$ 0.03379	1.00	1.00	0.00	0.00
2018	349	349	\$ 0.03379	\$ 0.02415	\$ 0.02415	\$ 0.03379	1.00	1.00	0.00	0.00
2019	349	349	\$ 0.03379	\$ 0.02444	\$ 0.02444	\$ 0.03379	1.00	1.00	0.00	0.00
2020	349	349	\$ 0.03379	\$ 0.02474	\$ 0.02474	\$ 0.03379	1.00	1.00	0.00	0.00
2021	349	349	\$ 0.03379	\$ 0.02503	\$ 0.02503	\$ 0.03379	1.00	1.00	0.00	0.00
2022	349	349	\$ 0.03379	\$ 0.02533	\$ 0.02533	\$ 0.03379	1.00	1.00	0.00	0.00
2023	349	349	\$ 0.03379	\$ 0.02564	\$ 0.02564	\$ 0.03379	1.00	1.00	0.00	0.00
2024	349	349	\$ 0.03379	\$ 0.02594	\$ 0.02594	\$ 0.03379	1.00	1.00	0.00	0.00
2025	349	349	\$ 0.03379	\$ 0.02626	\$ 0.02626	\$ 0.03379	1.00	1.00	0.00	0.00
2026	349	349	\$ 0.03379	\$ 0.02657	\$ 0.02657	\$ 0.03379	1.00	1.00	0.00	0.00
2027	349	349	\$ 0.03379	\$ 0.02689	\$ 0.02689	\$ 0.03379	1.00	1.00	0.00	0.00
2028	349	349	\$ 0.03379	\$ 0.02721	\$ 0.02721	\$ 0.03379	1.00	1.00	0.00	0.00
2029	349	349	\$ 0.03379	\$ 0.02754	\$ 0.02754	\$ 0.03379	1.00	1.00	0.00	0.00
2030	349	349	\$ 0.03379	\$ 0.02787	\$ 0.02787	\$ 0.03379	1.00	1.00	0.00	0.00
2031	349	349	\$ 0.03379	\$ 0.02820	\$ 0.02820	\$ 0.03379	1.00	1.00	0.00	0.00
2032	349	349	\$ 0.03379	\$ 0.02854	\$ 0.02854	\$ 0.03379	1.00	1.00	0.00	0.00
2033	349	349	\$ 0.03379	\$ 0.02888	\$ 0.02888	\$ 0.03379	1.00	1.00	0.00	0.00
2034	349	349	\$ 0.03379	\$ 0.02923	\$ 0.02923	\$ 0.03379	1.00	1.00	0.00	0.00

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

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Incremental T&D Capacity and Incremental Fuel							
Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code							
1	2	3	4	5	6	7	8
Year	Incremental Transmission Capacity Cost (\$000s)	Incremental Transmission O&M Cost (\$000s)	Total Incremental Trans. Cost (\$000s)	Incremental Distribution Capacity Cost (\$000s)	Incremental Distribution O&M Cost (\$000s)	Total Incremental Dist. Cost (\$000s)	Effective Incremental Fuel Costs (\$000s)
2005	\$ -	\$ -	\$ -	(0) \$	(0) \$	(0) \$	(0) \$
2006	\$ -	\$ -	\$ -	(0) \$	(0) \$	(0) \$	(1) \$
2007	\$ -	\$ -	\$ -	(0) \$	(0) \$	(0) \$	(1) \$
2008	\$ -	\$ -	\$ -	(0) \$	(0) \$	(0) \$	(1) \$
2009	\$ -	\$ -	\$ -	(0) \$	(0) \$	(0) \$	(2) \$
2010	\$ -	\$ -	\$ -	(0) \$	(0) \$	(0) \$	(3) \$
2011	\$ -	\$ -	\$ -	(0) \$	(0) \$	(0) \$	(5) \$
2012	\$ -	\$ -	\$ -	(0) \$	(0) \$	(1) \$	(6) \$
2013	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(8) \$
2014	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(10) \$
2015	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(10) \$
2016	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(11) \$
2017	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(11) \$
2018	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(11) \$
2019	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(11) \$
2020	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(11) \$
2021	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(11) \$
2022	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(11) \$
2023	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(11) \$
2024	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(12) \$
2025	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(12) \$
2026	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(12) \$
2027	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(12) \$
2028	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(12) \$
2029	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(12) \$
2030	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(12) \$
2031	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(13) \$
2032	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(13) \$
2033	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(13) \$
2034	\$ -	\$ -	\$ -	(1) \$	(0) \$	(1) \$	(13) \$
Nominal NPV	\$ -	\$ -	\$ -	(20) \$	(5) \$	(25) \$	(271) \$
	\$ -	\$ -	\$ -	(6) \$	(1) \$	(7) \$	(80) \$

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1	Utility Program Costs, Rebates, & Incentives								Participating Customers' Benefits and Costs						
	2 Annual Incremental KWH Generated (\$000)	3 Nonrecurring Costs (\$000)	4 Utility Recurring Costs (\$000)	5 Total Utility Program Costs (\$000)	6 Utility Nonrecurring Rebates/Incent. (\$000)	7 Utility Recurring Rebates/Incent. (\$000)	8 Total Utility Paid Rebates/Incent. (\$000)	9 Participant Equipment Costs (\$000)	10 Participant O&M Costs (\$000)	11 Total Participant Costs (\$000)	12 Change in Participants' Billed KWh (\$000)	13 Change in Participants' Billed Fuel (\$000)	14 Change in Participants' Billed Non-Fuel (\$000)	15 Change in Participants' Electric Bills (\$000)	
2005	(14) \$	- \$	- \$	- \$	- \$	1 \$	- \$	1 \$	7 \$	- \$	7	(13) \$	(0) \$	(0) \$	(1)
2006	(26) \$	- \$	- \$	- \$	- \$	1 \$	- \$	1 \$	7 \$	- \$	7	(27) \$	(1) \$	(0) \$	(1)
2007	(43) \$	- \$	- \$	- \$	- \$	1 \$	- \$	1 \$	7 \$	- \$	7	(41) \$	(1) \$	(1) \$	(2)
2008	(67) \$	- \$	- \$	- \$	- \$	2 \$	- \$	2 \$	11 \$	- \$	11	(63) \$	(2) \$	(1) \$	(3)
2009	(101) \$	- \$	- \$	- \$	- \$	3 \$	- \$	3 \$	17 \$	- \$	17	(96) \$	(3) \$	(1) \$	(5)
2010	(147) \$	- \$	- \$	- \$	- \$	4 \$	- \$	4 \$	24 \$	- \$	24	(140) \$	(5) \$	(2) \$	(7)
2011	(205) \$	- \$	- \$	- \$	- \$	5 \$	- \$	5 \$	30 \$	- \$	30	(195) \$	(7) \$	(3) \$	(9)
2012	(274) \$	- \$	- \$	- \$	- \$	5 \$	- \$	5 \$	37 \$	- \$	37	(260) \$	(9) \$	(4) \$	(12)
2013	(354) \$	- \$	- \$	- \$	- \$	6 \$	- \$	6 \$	44 \$	- \$	44	(337) \$	(11) \$	(5) \$	(16)
2014	(446) \$	- \$	- \$	- \$	- \$	7 \$	- \$	7 \$	51 \$	- \$	51	(424) \$	(14) \$	(6) \$	(20)
2015	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2016	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2017	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2018	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2019	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2020	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2021	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2022	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2023	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2024	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2025	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2026	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2027	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2028	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2029	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2030	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2031	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2032	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2033	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)
2034	(446) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	(424) \$	(14) \$	(6) \$	(20)

FLORIDA PUBLIC
UTILITIES

F_23

Filename: Cell Ins Upgrad

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 Distribution Cap Costs (\$000s)	Incremental Prog Induced Fuel Costs (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits (\$000s)	Cumulative Discounted Net Benefits (\$000s)
2005	\$ -	\$ -	\$ 7	\$ -	\$ -	\$ (0)	\$ (0)	\$ (0)	\$ 7	\$ 1	\$ (6)	\$ (6)
2006	\$ -	\$ -	\$ 7	\$ -	\$ -	\$ (1)	\$ (0)	\$ (1)	\$ 7	\$ 1	\$ (5)	\$ (11)
2007	\$ -	\$ -	\$ 7	\$ -	\$ -	\$ (1)	\$ (0)	\$ (1)	\$ 7	\$ 2	\$ (5)	\$ (15)
2008	\$ -	\$ -	\$ 11	\$ -	\$ -	\$ (2)	\$ (0)	\$ (1)	\$ 11	\$ 4	\$ (8)	\$ (21)
2009	\$ -	\$ -	\$ 17	\$ -	\$ -	\$ (3)	\$ (0)	\$ (2)	\$ 17	\$ 5	\$ (12)	\$ (30)
2010	\$ -	\$ -	\$ 24	\$ -	\$ -	\$ (5)	\$ (0)	\$ (3)	\$ 24	\$ 8	\$ (16)	\$ (41)
2011	\$ -	\$ -	\$ 30	\$ -	\$ -	\$ (6)	\$ (0)	\$ (5)	\$ 30	\$ 11	\$ (19)	\$ (53)
2012	\$ -	\$ -	\$ 37	\$ -	\$ -	\$ (9)	\$ (1)	\$ (6)	\$ 37	\$ 15	\$ (22)	\$ (65)
2013	\$ -	\$ -	\$ 44	\$ -	\$ -	\$ (11)	\$ (1)	\$ (8)	\$ 44	\$ 20	\$ (24)	\$ (79)
2014	\$ -	\$ -	\$ 51	\$ -	\$ -	\$ (14)	\$ (1)	\$ (10)	\$ 51	\$ 26	\$ (26)	\$ (91)
2015	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (15)	\$ (1)	\$ (10)	\$ -	\$ 26	\$ 26	\$ (79)
2016	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (15)	\$ (1)	\$ (11)	\$ -	\$ 26	\$ 26	\$ (68)
2017	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (15)	\$ (1)	\$ (11)	\$ -	\$ 27	\$ 27	\$ (57)
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (15)	\$ (1)	\$ (11)	\$ -	\$ 27	\$ 27	\$ (47)
2019	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (15)	\$ (1)	\$ (11)	\$ -	\$ 27	\$ 27	\$ (38)
2020	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (16)	\$ (1)	\$ (11)	\$ -	\$ 28	\$ 28	\$ (29)
2021	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (16)	\$ (1)	\$ (11)	\$ -	\$ 28	\$ 28	\$ (20)
2022	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (16)	\$ (1)	\$ (11)	\$ -	\$ 28	\$ 28	\$ (13)
2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (16)	\$ (1)	\$ (11)	\$ -	\$ 29	\$ 29	\$ (5)
2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (16)	\$ (1)	\$ (12)	\$ -	\$ 29	\$ 29	\$ 2
2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (16)	\$ (1)	\$ (12)	\$ -	\$ 29	\$ 29	\$ 8
2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (17)	\$ (1)	\$ (12)	\$ -	\$ 30	\$ 30	\$ 14
2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (17)	\$ (1)	\$ (12)	\$ -	\$ 30	\$ 30	\$ 20
2028	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (17)	\$ (1)	\$ (12)	\$ -	\$ 30	\$ 30	\$ 25
2029	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (17)	\$ (1)	\$ (12)	\$ -	\$ 31	\$ 31	\$ 30
2030	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (18)	\$ (1)	\$ (12)	\$ -	\$ 31	\$ 31	\$ 35
2031	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (18)	\$ (1)	\$ (13)	\$ -	\$ 32	\$ 32	\$ 39
2032	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (18)	\$ (1)	\$ (13)	\$ -	\$ 32	\$ 32	\$ 43
2033	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (18)	\$ (1)	\$ (13)	\$ -	\$ 32	\$ 32	\$ 47
2034	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (18)	\$ (1)	\$ (13)	\$ -	\$ 33	\$ 33	\$ 51
Nominal MPV	\$ -	\$ -	\$ 235	\$ -	\$ -	\$ (382)	\$ (25)	\$ (271)	\$ 235	\$ 678	\$ 442	
	\$ -	\$ -	\$ 148	\$ -	\$ -	\$ (112)	\$ (7)	\$ (80)	\$ 148	\$ 199	\$ 51	

2005 Demand-Side Management Plan
June 1, 2004



Residential Ceiling Insulation Program
 Attachment B
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PSC Form CE 2.4

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Run Date: 21-May-04

9:07 AM

Filename: Cell Ins Upgrd

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
	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)
Year											
2005	\$ 7	\$ -	\$ -	\$ -	\$ (1)	\$ -	\$ 1	\$ 7	\$ 2	\$ (5)	\$ (5)
2006	\$ 7	\$ -	\$ -	\$ -	\$ (1)	\$ -	\$ 1	\$ 7	\$ 2	\$ (4)	\$ (9)
2007	\$ 7	\$ -	\$ -	\$ -	\$ (2)	\$ -	\$ 1	\$ 7	\$ 3	\$ (4)	\$ (12)
2008	\$ 11	\$ -	\$ -	\$ -	\$ (3)	\$ -	\$ 2	\$ 11	\$ 5	\$ (7)	\$ (18)
2009	\$ 17	\$ -	\$ -	\$ -	\$ (5)	\$ -	\$ 3	\$ 17	\$ 7	\$ (10)	\$ (25)
2010	\$ 24	\$ -	\$ -	\$ -	\$ (7)	\$ -	\$ 4	\$ 24	\$ 10	\$ (13)	\$ (34)
2011	\$ 30	\$ -	\$ -	\$ -	\$ (9)	\$ -	\$ 5	\$ 30	\$ 14	\$ (16)	\$ (45)
2012	\$ 37	\$ -	\$ -	\$ -	\$ (12)	\$ -	\$ 5	\$ 37	\$ 18	\$ (19)	\$ (56)
2013	\$ 44	\$ -	\$ -	\$ -	\$ (16)	\$ -	\$ 6	\$ 44	\$ 22	\$ (22)	\$ (68)
2014	\$ 51	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ 7	\$ 51	\$ 27	\$ (24)	\$ (80)
2015	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (70)
2016	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (62)
2017	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (54)
2018	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (46)
2019	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (39)
2020	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (33)
2021	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (27)
2022	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (21)
2023	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (16)
2024	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (11)
2025	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (7)
2026	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ (2)
2027	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 1
2028	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 5
2029	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 8
2030	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 11
2031	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 14
2032	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 17
2033	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 19
2034	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ -	\$ -	\$ -	\$ 20	\$ 20	\$ 21

2005 Demand-Side Management Plan
June 1, 2004



Residential Ceiling Insulation Program
 Attachment B
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F_25

PSC Form CE 2.5

Page 1 of 1

Run Date: 21-May-04

9:07 AM

Filename: Cell Ins Upgrd

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 (\$000s)	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)
2005	\$ -	\$ -	\$ -	\$ (1)	\$ (0)	\$ (0)	\$ (0)	\$ -	\$ -	\$ 2	\$ 1	\$ (1)	\$ (1)
2006	\$ -	\$ -	\$ -	\$ (1)	\$ (1)	\$ (0)	\$ (1)	\$ -	\$ -	\$ 2	\$ 1	\$ (1)	\$ (2)
2007	\$ -	\$ -	\$ -	\$ (2)	\$ (1)	\$ (0)	\$ (1)	\$ -	\$ -	\$ 3	\$ 2	\$ (1)	\$ (3)
2008	\$ -	\$ -	\$ -	\$ (3)	\$ (2)	\$ (0)	\$ (1)	\$ -	\$ -	\$ 5	\$ 4	\$ (1)	\$ (4)
2009	\$ -	\$ -	\$ -	\$ (5)	\$ (3)	\$ (0)	\$ (2)	\$ -	\$ -	\$ 7	\$ 5	\$ (2)	\$ (5)
2010	\$ -	\$ -	\$ -	\$ (7)	\$ (5)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 10	\$ 8	\$ (2)	\$ (6)
2011	\$ -	\$ -	\$ -	\$ (9)	\$ (6)	\$ (0)	\$ (5)	\$ -	\$ -	\$ 14	\$ 11	\$ (2)	\$ (8)
2012	\$ -	\$ -	\$ -	\$ (12)	\$ (9)	\$ (1)	\$ (6)	\$ -	\$ -	\$ 18	\$ 15	\$ (2)	\$ (9)
2013	\$ -	\$ -	\$ -	\$ (16)	\$ (11)	\$ (1)	\$ (8)	\$ -	\$ -	\$ 22	\$ 20	\$ (2)	\$ (11)
2014	\$ -	\$ -	\$ -	\$ (20)	\$ (14)	\$ (1)	\$ (10)	\$ -	\$ -	\$ 27	\$ 26	\$ (2)	\$ (12)
2015	\$ -	\$ -	\$ -	\$ (20)	\$ (15)	\$ (1)	\$ (10)	\$ -	\$ -	\$ 20	\$ 26	\$ 6	\$ (9)
2016	\$ -	\$ -	\$ -	\$ (20)	\$ (15)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 26	\$ 6	\$ (6)
2017	\$ -	\$ -	\$ -	\$ (20)	\$ (15)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 27	\$ 6	\$ (4)
2018	\$ -	\$ -	\$ -	\$ (20)	\$ (15)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 27	\$ 7	\$ (1)
2019	\$ -	\$ -	\$ -	\$ (20)	\$ (15)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 27	\$ 7	\$ 1
2020	\$ -	\$ -	\$ -	\$ (20)	\$ (16)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 28	\$ 7	\$ 4
2021	\$ -	\$ -	\$ -	\$ (20)	\$ (16)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 28	\$ 8	\$ 6
2022	\$ -	\$ -	\$ -	\$ (20)	\$ (16)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 28	\$ 8	\$ 8
2023	\$ -	\$ -	\$ -	\$ (20)	\$ (16)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 20	\$ 29	\$ 8	\$ 10
2024	\$ -	\$ -	\$ -	\$ (20)	\$ (16)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 29	\$ 9	\$ 13
2025	\$ -	\$ -	\$ -	\$ (20)	\$ (16)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 29	\$ 9	\$ 15
2026	\$ -	\$ -	\$ -	\$ (20)	\$ (17)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 30	\$ 9	\$ 16
2027	\$ -	\$ -	\$ -	\$ (20)	\$ (17)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 30	\$ 10	\$ 18
2028	\$ -	\$ -	\$ -	\$ (20)	\$ (17)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 30	\$ 10	\$ 20
2029	\$ -	\$ -	\$ -	\$ (20)	\$ (17)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 31	\$ 11	\$ 22
2030	\$ -	\$ -	\$ -	\$ (20)	\$ (18)	\$ (1)	\$ (12)	\$ -	\$ -	\$ 20	\$ 31	\$ 11	\$ 23
2031	\$ -	\$ -	\$ -	\$ (20)	\$ (18)	\$ (1)	\$ (13)	\$ -	\$ -	\$ 20	\$ 32	\$ 11	\$ 25
2032	\$ -	\$ -	\$ -	\$ (20)	\$ (18)	\$ (1)	\$ (13)	\$ -	\$ -	\$ 20	\$ 32	\$ 12	\$ 27
2033	\$ -	\$ -	\$ -	\$ (20)	\$ (18)	\$ (1)	\$ (13)	\$ -	\$ -	\$ 20	\$ 32	\$ 12	\$ 28
2034	\$ -	\$ -	\$ -	\$ (20)	\$ (18)	\$ (1)	\$ (13)	\$ -	\$ -	\$ 20	\$ 33	\$ 13	\$ 29
Nominal	\$ -	\$ -	\$ -	\$ 35	\$ (479)	\$ (382)	\$ (25)	\$ (271)	\$ -	\$ 514	\$ 678	\$ 163	
NPV	\$ -	\$ -	\$ -	\$ 22	\$ (147)	\$ (112)	\$ (7)	\$ (80)	\$ -	\$ 169	\$ 199	\$ 29	

Section 2 - Commercial / Industrial Programs

GoodCents Commercial Building Program

► Program Description

The commercial/industrial market is comprised of a wide range of diverse businesses with variable size and operational characteristics. The success of the GoodCents Commercial Building Program lies in its ability to address this diversity by focusing on the common characteristics of commercial buildings. The most common critical areas in commercial buildings that affect summer peak kW demand are the thermal efficiency of the building and HVAC equipment efficiency. The GoodCents Commercial Building Program provides requirements for these areas that, if adhered to, will help reduce peak kW demand and energy consumption.

The promotion of the GoodCents Commercial Building Program through the years has created a positive relationship with trade allies, the public, and local commercial/industrial customers. The program's design continues to be sufficiently flexible to allow an architect or designer to use initiative and ingenuity to achieve results that are meaningful to both the customer and Florida Public Utilities Company.

The GoodCents Commercial Building Program is designed to ensure that buildings are constructed with energy efficiency levels above the Florida Model Energy code standards. These standards include both HVAC efficiency and thermal envelope requirements.

To provide an accurate quantitative analysis of the kW and kWh savings due to the GoodCents Building Program, the GoodCents standards for average commercial buildings are compared to the Florida Model Energy Code. The features used to prepare the customer's analysis include: wall and ceiling R-values, glass area, description of glass, and equipment used in determining the kW and kWh differences for the two types of structures.

Prescriptive Envelope Option:

The Prescriptive Envelope Option provides architects/designers and building owners a menu of items available for a GoodCents Building certification. Except for one, the features in this option are all structural in nature. The minimum requirements listed are those for insulation levels and window (glass) shading. As described in the Participation Standards section, the minimum window requirement consists of two choices. The first choice of 100 percent externally shaded at 3:00 p.m. indicates the need for overhangs. Windows (glass) that would be naturally shaded by the building itself at 3:00 p.m. would not need external overhangs installed (i.e., N, NE, E, SE). The second choice considers the shading coefficient of the glass itself. The shading coefficient of 0.65 (35 percent solar reduction) does not allow for internal shading (blinds, curtains, etc.).

The Additional Requirements section of the Prescriptive Option (see Participation Standards below) allows the customer a choice of three of the seven requirements listed. These choices include increased insulation levels above the minimum requirements, improved entryways with the incorporation of vestibules and exterior door improvements, and increased glass performance. One option is more behavioral rather than structural, that being the installation of an energy management system.

Thermal Performance Option:

A building may meet GoodCents standards through its thermal performance. This option requires a building to use the entire exterior thermal envelope by including both solar and transmission heat gains in the performance formula. The resulting Btu/h heat gain is then divided by the total envelope square footage (total exterior shell of the conditioned space including walls, windows, roof/ceiling, and floors if off-grade) to obtain a Btu/h/sq. ft. ratio. Depending on the conditioned floor square footage of the building, this ratio must meet the requirements of the

applicable building size described in the program. By using this calculation, the performance of the entire envelope of the building is evaluated.

HVAC Efficiency Requirements:

Besides increased efficiency requirements, differentiation has been made between single phase and three-phase equipment with a cooling capacity of less than 65,000 Btu/h. The lack of market availability for three-phase units in the higher efficiencies justifies a lower standard than that of a single-phase unit. The addition of "package thermal air conditioners" and "package thermal heat pumps" (PTAC and PTHP) has allowed a more complete list of possible cooling types in the commercial market.

The HVAC requirements are applicable to both the Prescriptive and Thermal Performance Options. Florida Public Utilities Company's continuing efforts to influence the market toward high-efficiency equipment and quality construction standards are the foundation of the GoodCents Commercial Building Program.

► **Participation Standards**

To qualify for the GoodCents Commercial certification, customers must meet the HVAC requirements and meet or exceed the standards in either the Prescriptive or Performance options.

HVAC Efficiency Requirements (A/C or Heat Pump):

Systems with cooling capacity < 65,000 Btu/h

Unitary split systems

Single Phase	Min. 11.0 SEER
Three Phase	Min. 10.2 SEER

Unitary package systems Min. 10.0 SEER

Packaged Terminal A/C or Heat Pump (PTAC or PTHP)

<12,000	Min. 9.0 EER
>12,001	Min. 8.7 EER

Systems with cooling capacity > 65,001 and < 135,000 Btu/h

Unitary split systems Min. 9.0 EER

Unitary package systems Min. 9.0 EER

Systems with cooling capacity > 135,001 Btu/h

Unitary split systems Min. 9.0 EER

Unitary package systems Min. 8.5 EER

Prescriptive Envelope Option:

Minimum Insulation Requirements:

R-19 Roof/Ceiling structure

R-11 Exterior Walls

Minimum Window (including glass doors) Requirements:

All glass is 100% externally shaded at 3:00 p.m.

or

All glass has a shading coefficient (without any internal shading) of .65 or lower as rated by the manufacturer

Additional Requirements

In addition to the above requirements, the building must also meet at least three of the seven requirements listed below.

- Increase roof/ceiling insulation to R-30.
- Increase exterior wall insulation to R-13.
- Incorporate a vestibule on all regularly used entrances and exits.
- Total glass area is less than 12% of gross exterior wall area.
- All exterior glass (except glass doors) is double pane.
- Exterior doors are metal insulated or double pane glass.
- Programmable thermostats or energy management systems are installed on all HVAC systems.

Thermal Performance Option:

The solar and transmission heat gain designed at 93° outside and 78° inside shall not exceed the following levels of heat gain per square foot of the above-grade exterior envelope.

Conditioned Floor Square Footage	Btu/h/sq. ft. of Exterior Envelope
0 to 5,000	5.5
5,001 to 15,000	5.0
Over 15,000	4.5

The benefits that accrue by the construction of a new GoodCents Commercial Building or the retrofit of an existing building are:

Customer

- Lower life cycle costs
- Lower operating costs
- Lower risks
- Improved comfort

Architects / Engineers

- Lower design risks
- Increased client satisfaction
- Innovation and differentiation

Florida Public Utilities Company

- Improved load factor (peak clipping/valley filling)
- Improved demand-side management
- Strategic conservation
- Improved productivity and effectiveness

► **Benefits and Costs**

A summary sheet describes the features used in order to prepare the analysis and is contained in Attachment A. The items provided include: wall and ceiling R-values, glass area, description of glass, and equipment used in determining the kW and kWh difference for the two types of structures.

With regard to the customer equipment cost, generally, there will be an increased cost to improve the buildings thermal requirements, but this cost will be partially offset by the reduced size of the HVAC equipment. The kW, kWh and cost figures used in the cost-effectiveness determination were weighted between the new and improved customers with an estimate of 80 percent new and 20 percent improved.

The evaluation of alternative HVAC systems is designed to calculate the total energy use and demands of a building, including the variations that normally occur in the number of people occupying the building and the variations in building equipment use. Using building specific information, energy requirements are calculated in hourly intervals. The evaluation requires that specified temperature and humidity conditions be maintained. Total building energy, demands, and individual equipment energy and demands are estimated and displayed in a wide variety of report formats. The following input data is needed for the analyses:

- General information, construction data, and building use information
- Interior and exterior building loads (people and equipment)
- Profiles of occupancy and equipment use
- Building zone specifications (orientation, glass, wall, floor, and ceiling areas; percent of base loads in the zone; number of people; etc.)
- Thermal system types, cooling primary system types, and heating primary system types for each building zone
- Controls (temperature, humidity, time clocks, etc.)

A utility cost of \$800 per customer is based on recent data for actual costs. Customer costs were estimated to be \$150. This is the estimated per-customer cost differential necessary to bring the building standards up to what is required for this program.

► **Monitoring and Evaluation**

Florida Public Utilities Company's representatives are made aware of the possible construction or renovation of a building either through official notification, architect/engineers' requests for assistance, or requests for temporary service made by construction firms or owners.

A Florida Public Utilities Company representative will contact the architect/engineer to offer assistance in the design phase of the building — incorporating the conservation measures necessary to qualify for the GoodCents Commercial Building Program. The assistance provided consists of load calculations, lighting designs (both interior and exterior), equipment

recommendations, recommendations for energy storage systems, heat recovery systems, economizers, demand control equipment, and specialized equipment.

During the construction phase, a representative visually inspects for the installation of GoodCents features and equipment. At the end of the construction phase, the representative assists in acquiring the electrical service necessary to meet the customer's needs.

► **Cost-Effectiveness**

This program is cost-effective using the Florida Public Service Commission's approved methodology (Rule 25-17.008). The cost-effectiveness runs included in Attachment C and the tables shown in Attachment B are reflective of the total GoodCents Commercial Building Program.

Summary Sheet
GoodCents Commercial Building Program

	Florida Public Utilities GoodCents Commercial Building	Florida Model Energy Code
Square Feet	4,444	4,444
Glass	½" Double Pane	- -
	0.55 SC	- -
	¼" Plate	¼" Clear Plate
	~12% of Gross Walls/West	340 Sq. Ft./West
Ceiling	R-30	R-10
HVAC	11 SEER/120 MBtu/h	10 SEER/1444 MBtu/h
	Cooling w/Resistance Heat	Heat Pumps
kWh	80,008	88,679
kW Summer Peak	23.60 kW	28.25 kW
kW Winter Peak	12.64 kW	13.00 kW
Design Total Heat Gain Btu/h/sq. ft. of Thermal Envelope	5.5 Btu/h/Sq. Ft.	13.6 Btu/h/sq. ft.

2005 Demand-Side Management Plan
June 1, 2004



GoodCents Commercial Building
 Attachment B
 Page 1 of 1

Florida Public Utilities Company
GoodCents Commercial Building Program

AT THE METER						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	8,671	0.36	4.65	104,052	4	56
2006	8,671	0.36	4.65	208,104	9	112
2007	8,671	0.36	4.65	312,156	13	167
2008	8,671	0.36	4.65	416,208	17	223
2009	8,671	0.36	4.65	520,260	22	279
2010	8,671	0.36	4.65	624,312	26	335
2011	8,671	0.36	4.65	728,364	30	391
2012	8,671	0.36	4.65	832,416	35	446
2013	8,671	0.36	4.65	936,468	39	502
2014	8,671	0.36	4.65	1,040,520	43	558

AT THE GENERATOR						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	9,122	0.44	5.69	109,463	5	68
2006	9,122	0.44	5.69	218,925	11	137
2007	9,122	0.44	5.69	328,388	16	205
2008	9,122	0.44	5.69	437,851	21	273
2009	9,122	0.44	5.69	547,314	26	341
2010	9,122	0.44	5.69	656,776	32	410
2011	9,122	0.44	5.69	766,239	37	478
2012	9,122	0.44	5.69	875,702	42	546
2013	9,122	0.44	5.69	985,164	48	614
2014	9,122	0.44	5.69	1,094,627	53	683

CUSTOMERS AND PARTICIPATION RATES					
YEAR	Total Number of Customers	Total Number of Eligible Customers	Annual Number of Program Participants	Total Penetration Level %	Cumulative Number of Program Participants
2005	3,885	35	12	30.0%	12
2006	3,963	35	12	30.0%	24
2007	4,042	28	12	30.0%	36
2008	4,123	28	12	30.0%	48
2009	4,206	28	12	30.0%	60
2010	4,290	28	12	30.0%	72
2011	4,376	28	12	30.0%	84
2012	4,463	28	12	30.0%	96
2013	4,552	28	12	30.0%	108
2014	4,643	28	12	30.0%	120

FLORIDA PUBLIC
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Program Input Area

Program Participant's Rate Class = GSD ▼

Program's New Participation Mid-Year Estimates

[illegible]

2005 Demand-Side Management Plan
June 1, 2004



GoodCents Commercial Building
 Attachment C
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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	-4.65	kW/Cus
(2) Change in Peak kW per Customer at generator	-5.69	kW Gen/Cus
(3) kW Line Loss Percentage	6.40%	
(4) Change in kWh per Customer at generator	(9,122)	kWh/Cus/Yr
(5) kWh Line Loss Percentage	5.20%	
(6) Group Line Loss Multiplier	1.00	
(7) Annual Change in Customer kWh at Meter	(8,671)	kWh/Cus/Yr
(8) Change in Winter kW per Cust at meter	-0.36	kW/Cus

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years
(2) Economic Life of Incremental Purchased Capacity	30	Years
(3) Economic Life of Incremental Distribution	30	Years
(4) K-Factor for Distribution Capacity	1.4272	

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	\$ 800.00	\$/Cus
(2) Utility Recurring Cost Per Customer	\$ -	\$/Cus/Year
(3) Utility Cost Escalation Rate	2.00%	
(4) Customer Equipment Cost	\$ 150.00	\$/Cus
(5) Customer Equipment Cost Escalation Rate	2.00%	
(6) Customer O&M Cost	\$ -	\$/Cus/Year
(7) Customer O&M Cost Escalation Rate	2.00%	
(8) Customer Tax Credit Per Installation	\$ -	\$/Cus
(9) Customer Tax Credit Escalation Rate	2.00%	
(10) Change in Supply Costs	\$ -	\$/Cus/Year
(11) Supply Costs Escalation Rate	2.00%	
(12) Utility Discount Rate	7.86%	
(13) Utility AFUDC Rate	0.00%	
(14) Utility Nonrecurring Rebate/Incentive	\$ -	\$/Cus
(15) Utility Recurring Rebate/Incentive	\$ -	\$/Cus/Year
(16) Utility Rebate/Incentive Escalation Rate	2.00%	

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2005	
(2) In-Service Year For Incremental Generation	N/A	**
(3) In-Service Year For Distribution	2005	
(4) Base Year Incremental Generation Cost	N/A	**
(5) Base Year Incremental Transmission Cost	N/A	**
(6) Base Year Incremental Distribution Cost	\$35.00	\$/kW
(7) Distribution Cost Escalation Rate	2.00%	
(8) Generator Fixed O & M Cost	N/A	**
(9) Generator Fixed O&M Escalation Rate	N/A	**
(10) Transmission Fixed O & M Cost	N/A	**
(11) Distribution Fixed O & M Cost	\$0.87	\$/kW/Yr
(12) Distribution Fixed O&M Escalation Rate	2.00%	
(13) Incremental Gen Variable O & M Costs	N/A	**
(14) Incre Gen Variable O&M Cost Esc Rate	N/A	**
(15) Incremental Gen Capacity Factor	N/A	**
(16) Incremental Purchased Energy Cost	\$0.0206	\$/kWh***
(17) Incremental Purchased Energy Cost Esc Rate	1.20%	
(18) Incremental Purchased Capacity Cost	\$76.46	\$/kW/Yr***
(19) Incremental Purchased Capacity Cost Esc Rate	1.20%	

Stop Revenue Loss at In-Service Year?

No

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

(1) Nonpurchased Power Cost In Customer Bill (Base Year)	\$0.0023	\$/kWh
(2) Nonpurchased Power Escalation Rate	Per Table	
(3) Customer Demand Charge Per kW (Base Year)	\$2.4800	\$/kW/Mo
(4) Demand Charge Escalation Rate	Per Table	
(5) Average Annual Change in Monthly Billing kW	-3.00	kW/Mo.

Summary Results for This Analysis

	RIM	Participants*
NPV Benefits (\$000s)	\$ 775	\$ 392
NPV Costs (\$000s)	\$ 468	\$ 14
NPV Net Benefits (\$000s)	\$ 307	\$ 378
Benefit:Cost Ratio	1.657	27.654

* Supplemental information.

** These are N/A because FPU purchases all of its generation and transmission through wholesale purchased power contracts with JEA and Gulf Power

*** These values are the weighted average wholesale power costs for 2004

2005 Demand-Side Management Plan
June 1, 2004



GoodCents Commercial Building
 Attachment C
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INPUT DATA -- PART 2

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

1	2	3	4	5	6	7	8	9	10	11
Year	Cumulative Total Participating Customers	Cumulative Participating Customers Adj Free Rides	FPU's Purch. Power Cost In Ret. Rate (\$/kWh)	Marginal Fuel Cost (Decreases) (\$/kWh)	Marginal Fuel Cost (Increases) (\$/kWh)	Replacement Fuel Cost (\$/kWh)	Program kW Effectiveness Factor	Program kWh Effectiveness Factor	Other Costs (\$000)	Other Benefits (\$000)
2005	12	12	\$ 0.03131	\$ 0.02063	\$ 0.02063	\$ 0.03131	1.00	1.00	0.00	0.00
2006	24	24	\$ 0.03131	\$ 0.02091	\$ 0.02091	\$ 0.03131	1.00	1.00	0.00	0.00
2007	36	36	\$ 0.03131	\$ 0.02118	\$ 0.02118	\$ 0.03131	1.00	1.00	0.00	0.00
2008	48	48	\$ 0.03131	\$ 0.02144	\$ 0.02144	\$ 0.03131	1.00	1.00	0.00	0.00
2009	60	60	\$ 0.03131	\$ 0.02169	\$ 0.02169	\$ 0.03131	1.00	1.00	0.00	0.00
2010	72	72	\$ 0.03131	\$ 0.02195	\$ 0.02195	\$ 0.03131	1.00	1.00	0.00	0.00
2011	84	84	\$ 0.03131	\$ 0.02222	\$ 0.02222	\$ 0.03131	1.00	1.00	0.00	0.00
2012	96	96	\$ 0.03131	\$ 0.02248	\$ 0.02248	\$ 0.03131	1.00	1.00	0.00	0.00
2013	108	108	\$ 0.03131	\$ 0.02275	\$ 0.02275	\$ 0.03131	1.00	1.00	0.00	0.00
2014	120	120	\$ 0.03131	\$ 0.02303	\$ 0.02303	\$ 0.03131	1.00	1.00	0.00	0.00
2015	120	120	\$ 0.03131	\$ 0.02330	\$ 0.02330	\$ 0.03131	1.00	1.00	0.00	0.00
2016	120	120	\$ 0.03131	\$ 0.02358	\$ 0.02358	\$ 0.03131	1.00	1.00	0.00	0.00
2017	120	120	\$ 0.03131	\$ 0.02387	\$ 0.02387	\$ 0.03131	1.00	1.00	0.00	0.00
2018	120	120	\$ 0.03131	\$ 0.02415	\$ 0.02415	\$ 0.03131	1.00	1.00	0.00	0.00
2019	120	120	\$ 0.03131	\$ 0.02444	\$ 0.02444	\$ 0.03131	1.00	1.00	0.00	0.00
2020	120	120	\$ 0.03131	\$ 0.02474	\$ 0.02474	\$ 0.03131	1.00	1.00	0.00	0.00
2021	120	120	\$ 0.03131	\$ 0.02503	\$ 0.02503	\$ 0.03131	1.00	1.00	0.00	0.00
2022	120	120	\$ 0.03131	\$ 0.02533	\$ 0.02533	\$ 0.03131	1.00	1.00	0.00	0.00
2023	120	120	\$ 0.03131	\$ 0.02564	\$ 0.02564	\$ 0.03131	1.00	1.00	0.00	0.00
2024	120	120	\$ 0.03131	\$ 0.02594	\$ 0.02594	\$ 0.03131	1.00	1.00	0.00	0.00
2025	120	120	\$ 0.03131	\$ 0.02626	\$ 0.02626	\$ 0.03131	1.00	1.00	0.00	0.00
2026	120	120	\$ 0.03131	\$ 0.02657	\$ 0.02657	\$ 0.03131	1.00	1.00	0.00	0.00
2027	120	120	\$ 0.03131	\$ 0.02689	\$ 0.02689	\$ 0.03131	1.00	1.00	0.00	0.00
2028	120	120	\$ 0.03131	\$ 0.02721	\$ 0.02721	\$ 0.03131	1.00	1.00	0.00	0.00
2029	120	120	\$ 0.03131	\$ 0.02754	\$ 0.02754	\$ 0.03131	1.00	1.00	0.00	0.00
2030	120	120	\$ 0.03131	\$ 0.02787	\$ 0.02787	\$ 0.03131	1.00	1.00	0.00	0.00
2031	120	120	\$ 0.03131	\$ 0.02820	\$ 0.02820	\$ 0.03131	1.00	1.00	0.00	0.00
2032	120	120	\$ 0.03131	\$ 0.02854	\$ 0.02854	\$ 0.03131	1.00	1.00	0.00	0.00
2033	120	120	\$ 0.03131	\$ 0.02888	\$ 0.02888	\$ 0.03131	1.00	1.00	0.00	0.00
2034	120	120	\$ 0.03131	\$ 0.02923	\$ 0.02923	\$ 0.03131	1.00	1.00	0.00	0.00

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

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

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Utility Program Costs, Rebates, & Incentives									Participating Customers' Benefits and Costs						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Year	Annual Incremental kWh Generated (\$000s)	Utility Nonrecurring Costs (\$000)	Utility Recurring Costs (\$000)	Total Utility Program Costs (\$000)	Utility Nonrecurring Rebates/Incent. (\$000)	Utility Recurring Rebates/Incent. (\$000)	Total Utility Paid Rebates/Incent. (\$000)	Participant Equipment Costs (\$000)	Participant O&M Costs (\$000)	Total Participant Costs (\$000)	Change in Participants' Billed kWh (\$000)	Change in Participants' Billed Fuel (\$000)	Change in Participants' Billed Non-Fuel (\$000)	Change in Participants' Electric Bills (\$000)	
2005	(109) \$	10 \$	- \$	10 \$	- \$	- \$	- \$	2 \$	- \$	2 \$	(104) \$	(3) \$	(1) \$	(5) \$	
2006	(219) \$	10 \$	- \$	10 \$	- \$	- \$	- \$	2 \$	- \$	2 \$	(208) \$	(7) \$	(3) \$	(9) \$	
2007	(328) \$	10 \$	- \$	10 \$	- \$	- \$	- \$	2 \$	- \$	2 \$	(312) \$	(10) \$	(4) \$	(14) \$	
2008	(438) \$	10 \$	- \$	10 \$	- \$	- \$	- \$	2 \$	- \$	2 \$	(416) \$	(13) \$	(5) \$	(18) \$	
2009	(547) \$	10 \$	- \$	10 \$	- \$	- \$	- \$	2 \$	- \$	2 \$	(520) \$	(16) \$	(7) \$	(23) \$	
2010	(657) \$	11 \$	- \$	11 \$	- \$	- \$	- \$	2 \$	- \$	2 \$	(624) \$	(20) \$	(8) \$	(27) \$	
2011	(766) \$	11 \$	- \$	11 \$	- \$	- \$	- \$	2 \$	- \$	2 \$	(728) \$	(23) \$	(9) \$	(32) \$	
2012	(876) \$	11 \$	- \$	11 \$	- \$	- \$	- \$	2 \$	- \$	2 \$	(832) \$	(26) \$	(11) \$	(37) \$	
2013	(985) \$	11 \$	- \$	11 \$	- \$	- \$	- \$	2 \$	- \$	2 \$	(936) \$	(29) \$	(12) \$	(41) \$	
2014	(1,095) \$	11 \$	- \$	11 \$	- \$	- \$	- \$	2 \$	- \$	2 \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2015	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2016	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2017	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2018	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2019	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2020	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2021	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2022	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2023	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2024	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2025	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2026	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2027	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2028	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2029	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2030	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2031	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2032	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2033	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	
2034	(1,095) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(1,041) \$	(33) \$	(13) \$	(46) \$	

2005 Demand-Side Management Plan
June 1, 2004



GoodCents Commercial Building
 Attachment C
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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 Distribution Cap Costs (\$000s)	Incremental Prog Induced Fuel Costs (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits (\$000s)	Cumulative Discounted Net Benefits (\$000s)
2005	\$ -	\$ 10	\$ 2	\$ -	\$ -	\$ (5)	\$ (0)	\$ (2)	\$ 11	\$ 8	\$ (4)	\$ (4)
2006	\$ -	\$ 10	\$ 2	\$ -	\$ -	\$ (11)	\$ (1)	\$ (5)	\$ 12	\$ 16	\$ 4	\$ 0
2007	\$ -	\$ 10	\$ 2	\$ -	\$ -	\$ (16)	\$ (1)	\$ (7)	\$ 12	\$ 24	\$ 12	\$ 10
2008	\$ -	\$ 10	\$ 2	\$ -	\$ -	\$ (22)	\$ (1)	\$ (9)	\$ 12	\$ 32	\$ 20	\$ 26
2009	\$ -	\$ 10	\$ 2	\$ -	\$ -	\$ (27)	\$ (2)	\$ (12)	\$ 12	\$ 41	\$ 28	\$ 47
2010	\$ -	\$ 11	\$ 2	\$ -	\$ -	\$ (33)	\$ (2)	\$ (14)	\$ 13	\$ 49	\$ 37	\$ 73
2011	\$ -	\$ 11	\$ 2	\$ -	\$ -	\$ (39)	\$ (2)	\$ (17)	\$ 13	\$ 58	\$ 45	\$ 101
2012	\$ -	\$ 11	\$ 2	\$ -	\$ -	\$ (45)	\$ (3)	\$ (20)	\$ 13	\$ 67	\$ 54	\$ 133
2013	\$ -	\$ 11	\$ 2	\$ -	\$ -	\$ (51)	\$ (3)	\$ (22)	\$ 13	\$ 77	\$ 63	\$ 168
2014	\$ -	\$ 11	\$ 2	\$ -	\$ -	\$ (58)	\$ (3)	\$ (25)	\$ 14	\$ 86	\$ 73	\$ 205
2015	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (58)	\$ (4)	\$ (26)	\$ -	\$ 88	\$ 88	\$ 246
2016	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (59)	\$ (4)	\$ (26)	\$ -	\$ 89	\$ 89	\$ 285
2017	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (60)	\$ (4)	\$ (26)	\$ -	\$ 90	\$ 90	\$ 321
2018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (61)	\$ (4)	\$ (26)	\$ -	\$ 91	\$ 91	\$ 355
2019	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (61)	\$ (4)	\$ (27)	\$ -	\$ 92	\$ 92	\$ 387
2020	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (62)	\$ (4)	\$ (27)	\$ -	\$ 93	\$ 93	\$ 417
2021	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (63)	\$ (4)	\$ (27)	\$ -	\$ 94	\$ 94	\$ 445
2022	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (64)	\$ (4)	\$ (28)	\$ -	\$ 95	\$ 95	\$ 471
2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (64)	\$ (4)	\$ (28)	\$ -	\$ 97	\$ 97	\$ 496
2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (65)	\$ (4)	\$ (28)	\$ -	\$ 98	\$ 98	\$ 519
2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (66)	\$ (4)	\$ (29)	\$ -	\$ 99	\$ 99	\$ 541
2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (67)	\$ (4)	\$ (29)	\$ -	\$ 100	\$ 100	\$ 561
2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (67)	\$ (4)	\$ (29)	\$ -	\$ 101	\$ 101	\$ 580
2028	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (68)	\$ (5)	\$ (30)	\$ -	\$ 103	\$ 103	\$ 598
2029	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (69)	\$ (5)	\$ (30)	\$ -	\$ 104	\$ 104	\$ 615
2030	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (70)	\$ (5)	\$ (31)	\$ -	\$ 105	\$ 105	\$ 631
2031	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (71)	\$ (5)	\$ (31)	\$ -	\$ 106	\$ 106	\$ 646
2032	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (72)	\$ (5)	\$ (31)	\$ -	\$ 108	\$ 108	\$ 660
2033	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (72)	\$ (5)	\$ (32)	\$ -	\$ 109	\$ 109	\$ 673
2034	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (73)	\$ (5)	\$ (32)	\$ -	\$ 110	\$ 110	\$ 685
Nominal	\$ -	\$ 105	\$ 20	\$ -	\$ -	\$ (1,620)	\$ (103)	\$ (707)	\$ 125	\$ 2,430	\$ 2,305	
NPV	\$ -	\$ 76	\$ 14	\$ -	\$ -	\$ (518)	\$ (32)	\$ (226)	\$ 90	\$ 775	\$ 685	

2005 Demand-Side Management Plan
June 1, 2004



GoodCents Commercial Building
 Attachment C
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PSC Form CE 2.4

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Run Date: 26-May-04

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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	
		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)
Year																						
2005	\$	2	\$	-	\$	-	\$	-	\$	(5)	\$	-	\$	-	\$	2	\$	5	\$	3	\$	3
2006	\$	2	\$	-	\$	-	\$	-	\$	(9)	\$	-	\$	-	\$	2	\$	9	\$	7	\$	10
2007	\$	2	\$	-	\$	-	\$	-	\$	(14)	\$	-	\$	-	\$	2	\$	14	\$	12	\$	20
2008	\$	2	\$	-	\$	-	\$	-	\$	(18)	\$	-	\$	-	\$	2	\$	18	\$	16	\$	33
2009	\$	2	\$	-	\$	-	\$	-	\$	(23)	\$	-	\$	-	\$	2	\$	23	\$	21	\$	48
2010	\$	2	\$	-	\$	-	\$	-	\$	(27)	\$	-	\$	-	\$	2	\$	27	\$	25	\$	66
2011	\$	2	\$	-	\$	-	\$	-	\$	(32)	\$	-	\$	-	\$	2	\$	32	\$	30	\$	85
2012	\$	2	\$	-	\$	-	\$	-	\$	(37)	\$	-	\$	-	\$	2	\$	37	\$	34	\$	105
2013	\$	2	\$	-	\$	-	\$	-	\$	(41)	\$	-	\$	-	\$	2	\$	41	\$	39	\$	126
2014	\$	2	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	2	\$	46	\$	44	\$	148
2015	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	170
2016	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	190
2017	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	208
2018	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	225
2019	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	241
2020	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	256
2021	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	269
2022	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	282
2023	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	294
2024	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	305
2025	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	315
2026	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	324
2027	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	333
2028	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	341
2029	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	348
2030	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	355
2031	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	361
2032	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	367
2033	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	373
2034	\$	-	\$	-	\$	-	\$	-	\$	(46)	\$	-	\$	-	\$	-	\$	46	\$	46	\$	378

FLORIDA PUBLIC
UTILITIES

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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 (\$000s)	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)
2005	\$ -	\$ 10	\$ -	\$ (5)	\$ (5)	\$ (0)	\$ (2)	\$ -	\$ -	\$ 14	\$ 8	\$ (6)	\$ (6)
2006	\$ -	\$ 10	\$ -	\$ (9)	\$ (11)	\$ (1)	\$ (5)	\$ -	\$ -	\$ 19	\$ 16	\$ (3)	\$ (9)
2007	\$ -	\$ 10	\$ -	\$ (14)	\$ (16)	\$ (1)	\$ (7)	\$ -	\$ -	\$ 24	\$ 24	\$ 0	\$ (9)
2008	\$ -	\$ 10	\$ -	\$ (18)	\$ (22)	\$ (1)	\$ (9)	\$ -	\$ -	\$ 28	\$ 32	\$ 4	\$ (6)
2009	\$ -	\$ 10	\$ -	\$ (23)	\$ (27)	\$ (2)	\$ (12)	\$ -	\$ -	\$ 33	\$ 41	\$ 7	\$ (1)
2010	\$ -	\$ 11	\$ -	\$ (27)	\$ (33)	\$ (2)	\$ (14)	\$ -	\$ -	\$ 38	\$ 49	\$ 11	\$ 7
2011	\$ -	\$ 11	\$ -	\$ (32)	\$ (39)	\$ (2)	\$ (17)	\$ -	\$ -	\$ 43	\$ 58	\$ 16	\$ 17
2012	\$ -	\$ 11	\$ -	\$ (37)	\$ (45)	\$ (3)	\$ (20)	\$ -	\$ -	\$ 48	\$ 67	\$ 20	\$ 28
2013	\$ -	\$ 11	\$ -	\$ (41)	\$ (51)	\$ (3)	\$ (22)	\$ -	\$ -	\$ 52	\$ 77	\$ 24	\$ 42
2014	\$ -	\$ 11	\$ -	\$ (46)	\$ (58)	\$ (3)	\$ (25)	\$ -	\$ -	\$ 57	\$ 86	\$ 29	\$ 57
2015	\$ -	\$ -	\$ -	\$ (46)	\$ (58)	\$ (4)	\$ (26)	\$ -	\$ -	\$ 46	\$ 88	\$ 42	\$ 76
2016	\$ -	\$ -	\$ -	\$ (46)	\$ (59)	\$ (4)	\$ (26)	\$ -	\$ -	\$ 46	\$ 89	\$ 43	\$ 95
2017	\$ -	\$ -	\$ -	\$ (46)	\$ (60)	\$ (4)	\$ (26)	\$ -	\$ -	\$ 46	\$ 90	\$ 44	\$ 113
2018	\$ -	\$ -	\$ -	\$ (46)	\$ (61)	\$ (4)	\$ (26)	\$ -	\$ -	\$ 46	\$ 91	\$ 45	\$ 129
2019	\$ -	\$ -	\$ -	\$ (46)	\$ (61)	\$ (4)	\$ (27)	\$ -	\$ -	\$ 46	\$ 92	\$ 46	\$ 145
2020	\$ -	\$ -	\$ -	\$ (46)	\$ (62)	\$ (4)	\$ (27)	\$ -	\$ -	\$ 46	\$ 93	\$ 47	\$ 161
2021	\$ -	\$ -	\$ -	\$ (46)	\$ (63)	\$ (4)	\$ (27)	\$ -	\$ -	\$ 46	\$ 94	\$ 48	\$ 175
2022	\$ -	\$ -	\$ -	\$ (46)	\$ (64)	\$ (4)	\$ (28)	\$ -	\$ -	\$ 46	\$ 95	\$ 50	\$ 189
2023	\$ -	\$ -	\$ -	\$ (46)	\$ (64)	\$ (4)	\$ (28)	\$ -	\$ -	\$ 46	\$ 97	\$ 51	\$ 202
2024	\$ -	\$ -	\$ -	\$ (46)	\$ (65)	\$ (4)	\$ (28)	\$ -	\$ -	\$ 46	\$ 98	\$ 52	\$ 214
2025	\$ -	\$ -	\$ -	\$ (46)	\$ (66)	\$ (4)	\$ (29)	\$ -	\$ -	\$ 46	\$ 99	\$ 53	\$ 226
2026	\$ -	\$ -	\$ -	\$ (46)	\$ (67)	\$ (4)	\$ (29)	\$ -	\$ -	\$ 46	\$ 100	\$ 54	\$ 237
2027	\$ -	\$ -	\$ -	\$ (46)	\$ (67)	\$ (4)	\$ (29)	\$ -	\$ -	\$ 46	\$ 101	\$ 56	\$ 248
2028	\$ -	\$ -	\$ -	\$ (46)	\$ (68)	\$ (5)	\$ (30)	\$ -	\$ -	\$ 46	\$ 103	\$ 57	\$ 258
2029	\$ -	\$ -	\$ -	\$ (46)	\$ (69)	\$ (5)	\$ (30)	\$ -	\$ -	\$ 46	\$ 104	\$ 58	\$ 267
2030	\$ -	\$ -	\$ -	\$ (46)	\$ (70)	\$ (5)	\$ (31)	\$ -	\$ -	\$ 46	\$ 105	\$ 59	\$ 276
2031	\$ -	\$ -	\$ -	\$ (46)	\$ (71)	\$ (5)	\$ (31)	\$ -	\$ -	\$ 46	\$ 106	\$ 61	\$ 285
2032	\$ -	\$ -	\$ -	\$ (46)	\$ (72)	\$ (5)	\$ (31)	\$ -	\$ -	\$ 46	\$ 108	\$ 62	\$ 293
2033	\$ -	\$ -	\$ -	\$ (46)	\$ (72)	\$ (5)	\$ (32)	\$ -	\$ -	\$ 46	\$ 109	\$ 63	\$ 300
2034	\$ -	\$ -	\$ -	\$ (46)	\$ (73)	\$ (5)	\$ (32)	\$ -	\$ -	\$ 46	\$ 110	\$ 65	\$ 307
Nominal NPV	\$ -	\$ 105	\$ -	\$ (1,166)	\$ (1,620)	\$ (103)	\$ (707)	\$ -	\$ -	\$ 1,271	\$ 2,430	\$ 1,159	
	\$ -	\$ 76	\$ -	\$ (392)	\$ (518)	\$ (32)	\$ (226)	\$ -	\$ -	\$ 468	\$ 775	\$ 307	

GoodCents Commercial Technical Assistance Audit Program

► Program Description

The Technical Assistance Audit (TAA) Program is an interactive program that assists commercial customers in identifying advanced energy conservation opportunities. It is customized to meet the individual needs of large customers as required; therefore, it is an evolving program.

The Technical Assistance Audit process consists of an on-site review of the customer's facility operation, equipment, and energy usage pattern by a Florida Public Utilities Company Conservation Specialist. The specialist identifies all areas of potential reduction in kW demand and kWh consumption as well as identifying end-use technology opportunities. A technical evaluation is then performed to determine the economic payback or life cycle cost for various improvements to the facility. Florida Public Utilities Company will subcontract the evaluation process to an independent engineering firm and/or contracting consultant, if necessary.

► Participation Standards

The Technical Assistance Audit Program is available to all commercial and industrial customers.

► Benefits and Costs

The Technical Assistance Audit provides specific recommendations of energy conservation opportunities for the customer. The cost to the customer will be based on the recommendations regarding equipment, operational options, or other suggestions. The age of the customer's existing stock of end-use technologies and appliances and the building's envelope are key determinates of the customer's cost. Because the program provides specific and unique options to the customer, gross or average cost estimates are not appropriate and were not calculated.

The benefits to Florida Public Utilities Company come from the resulting energy conservation as well as improved customer satisfaction. In recent research of commercial/industrial customers, providing these customers with individualized attention to help them lower operating costs and increase efficiency is consistently mentioned as an area of needed improvement.

► **Monitoring and Evaluation**

Monitoring and evaluation of the Technical Assistance Audits will be administered on a case-by-case basis. Energy efficiency levels resulting in lower operating costs, improved customer satisfaction, and kW and kWh reductions will be monitored to help determine the program's effectiveness. This program has attracted significantly greater participation than was expected; accordingly Florida Public Utilities Company has increased annual participation goals from the mid-thirties to forty TAAs per year. The Company will continue to monitor this successful program.

► **Cost-Effectiveness**

Standard cost-effectiveness analysis is not applicable for energy audits. The purpose of the energy audit is to discover energy efficiency options and changes that customers can choose to implement. Customers, on average, will choose to implement the most cost-effective options. Audit programs like this one serve energy customers by providing them with reliable information upon which to base their energy efficiency decisions.

2005 Demand-Side Management Plan
June 1, 2004



GoodCents Commercial TAA Program
 Attachment A
 Page 1 of 1

Florida Public Utilities Company
GoodCents Commercial Technical Assistance Audit Program

AT THE METER						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	5,887	1.60	1.60	235,480	64	64
2006	5,887	1.60	1.60	470,960	128	128
2007	5,887	1.60	1.60	706,440	192	192
2008	5,887	1.60	1.60	941,920	256	256
2009	5,887	1.60	1.60	1,177,400	320	320
2010	5,887	1.60	1.60	1,412,880	384	384
2011	5,887	1.60	1.60	1,648,360	448	448
2012	5,887	1.60	1.60	1,883,840	512	512
2013	5,887	1.60	1.60	2,119,320	576	576
2014	5,887	1.60	1.60	2,354,800	640	640

AT THE GENERATOR						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	6,152	1.95	1.95	246,080	78	78
2006	6,152	1.95	1.95	492,160	156	156
2007	6,152	1.95	1.95	738,240	234	234
2008	6,152	1.95	1.95	984,320	312	312
2009	6,152	1.95	1.95	1,230,400	390	390
2010	6,152	1.95	1.95	1,476,480	468	468
2011	6,152	1.95	1.95	1,722,560	546	546
2012	6,152	1.95	1.95	1,968,640	624	624
2013	6,152	1.95	1.95	2,214,720	702	702
2014	6,152	1.95	1.95	2,460,800	780	780

CUSTOMERS AND PARTICIPATION RATES					
YEAR	Total Number of Residential Customers	Total Number of Eligible Residential Customers	Annual Number of Program Participants	Total Penetration Level %	Cumulative Number of Program Participants
2005	3,885	1166	40	3.4%	40
2006	3,963	1189	40	3.4%	80
2007	4,042	1213	40	3.3%	120
2008	4,123	1237	40	3.2%	160
2009	4,206	1262	40	3.2%	200
2010	4,290	1287	40	3.1%	240
2011	4,376	1313	40	3.0%	280
2012	4,463	1339	40	3.0%	320
2013	4,552	1366	40	2.9%	360
2014	4,643	1393	40	2.9%	400

Commercial Indoor Efficient Lighting Rebate Program

► Program Description

The purpose of this program is to reduce peak demand and energy consumption by decreasing the load presented by commercial lighting equipment. To serve this purpose, this program requires that commercial customers achieve at least 1,000 watts of lighting reduction from any lighting source that has been retrofitted with a more efficient fluorescent lighting system (ballasts and lamps). By doing so, they will qualify for an incentive of 10¢ per watt reduced.

Interested commercial customers or contractor must contact Florida Public Utilities Company before starting a lighting retrofit project. The Company will then dispatch a qualified lighting engineer to perform an inspection and determine what lighting changes should be made to enhance efficiency. The inspection will also determine the customer/contractor's eligibility for the 10¢ per reduced-watt incentive. If the customer desires it, Florida Public Utilities Company will also help them find a qualified contractor to do the needed upgrade.

► Participation Standards

- Any commercial/industrial customer on firm rates meeting the Company's requirements for participation is eligible.
- A minimum of 1,000 watts in lighting reduction must be achieved.
- Reductions in lighting energy caused only by fixture/lamp removal, operational changes, or by "add-on" energy saving devices are not eligible.
- Retrofit upgrades shall be permanent installations. Lamp replacements only will not qualify because they are not considered permanent. Delamping installations will require that reflectors be incorporated unless high-output ballasts are used in the installations.
- Only dedicated ballast and lamp systems will be eligible for rebates (i.e., ballasts will be designed to operate one specific type and wattage lamp). Ballasts designed to operate multiple wattage lamp types are not eligible.
- All indoor lighting retrofits that are energy efficient and reduce overall wattage will qualify.
- Ballasts must have total harmonic distortion levels of less than 20% as tested by ETL Testing Laboratory.

- Customers/Contractor must submit rebate request forms to Florida Public Utilities Company with the invoices of their purchases of lighting systems.
- Florida Public Utilities Company will randomly perform full field verifications on a minimum of 10% of the participating businesses. Participants not selected for the field review will have a telephone verification to validate the rebate information.
- No payments will be made until Florida Public Utilities Company verifies or validates rebate requests.
- The customer/Contractor rebate is \$0.10 per watt reduction for replacing the current lighting system with a more efficient lighting system within conditioned space.
- The reporting requirements for this program will follow Rule 25-17.0021 (5), Florida Administrative Code. Additionally, program expenses will be identified in the Energy Conservation Cost Recovery (ECCR) True Up and Projection filings.

► **Benefits and Costs**

Commercial lighting load represents a significant fraction of commercial customers' electric bills. That load is usually on during Florida Public Utilities Company's peak period. By encouraging commercial customers to upgrade and enhance their interior lighting to benefit their business and reduce the lighting load, commercial customers, Florida Public Utilities Company, and other ratepayers are benefited.

► **Monitoring and Evaluation**

Florida Public Utilities Company will validate engineering analyses of energy and demand savings with billing data and by metering customer equipment. Reasons for program participation and non-participation will be assessed through interviews conducted with program participants and non-participants. Depending upon the level of participation, surveys may be conducted among customers having upgraded their lighting systems to determine customer satisfaction with the upgrades.

► **Cost-Effectiveness**

This program is cost-effective using the Commission's approved methodology (Rule 25-17.008). The summary tables of demand and energy reductions are included in Attachment A. The cost-effectiveness FIRE model results are included in Attachment B.

2005 Demand-Side Management Plan
June 1, 2004



Commercial Indoor Efficient Lighting Rebate Program
 Attachment A
 Page 1 of 1

Florida Public Utilities Company
Commercial Indoor Efficient Lighting Rebate Program

AT THE METER						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	29,432	9.43	12.94	58,864	19	26
2006	29,432	9.43	12.94	117,728	38	52
2007	29,432	9.43	12.94	176,592	57	78
2008	29,432	9.43	12.94	264,888	85	116
2009	29,432	9.43	12.94	353,184	113	155
2010	29,432	9.43	12.94	470,912	151	207
2011	29,432	9.43	12.94	588,640	189	259
2012	29,432	9.43	12.94	735,800	236	324
2013	29,432	9.43	12.94	912,392	292	401
2014	29,432	9.43	12.94	1,118,416	358	492

AT THE GENERATOR						
YEAR	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2005	30,962	11.54	15.83	61,925	23	32
2006	30,962	11.54	15.83	123,850	46	63
2007	30,962	11.54	15.83	185,775	69	95
2008	30,962	11.54	15.83	278,662	104	143
2009	30,962	11.54	15.83	371,550	138	190
2010	30,962	11.54	15.83	495,399	185	253
2011	30,962	11.54	15.83	619,249	231	317
2012	30,962	11.54	15.83	774,062	288	396
2013	30,962	11.54	15.83	959,836	358	491
2014	30,962	11.54	15.83	1,176,574	438	602

CUSTOMERS AND PARTICIPATION RATES					
YEAR	Total Number of Residential Customers	Total Number of Eligible Residential Customers	Annual Number of Program Participants	Total Penetration Level %	Cumulative Number of Program Participants
2005	3,885	1,166	2	0.2%	2
2006	3,963	1,189	2	0.2%	4
2007	4,042	1,213	2	0.2%	6
2008	4,123	1,237	3	0.2%	9
2009	4,206	1,262	3	0.2%	12
2010	4,290	1,287	4	0.3%	16
2011	4,376	1,313	4	0.3%	20
2012	4,463	1,339	5	0.4%	25
2013	4,552	1,366	6	0.4%	31
2014	4,643	1,393	7	0.5%	38

FLORIDA PUBLIC
UTILITIES

2005 Demand-Side Management Plan
June 1, 2004



Commercial Indoor Efficient Lighting Rebate Program
Attachment B
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PSC Form CE 1.1

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Run Date: 26-May-04
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Filename: Com Light Up

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	-12.94	kW/Cus
(2) Change in Peak kW per Customer at generator	-15.83	kW Gen/Cus
(3) kW Line Loss Percentage	6.40%	
(4) Change in kWh per Customer at generator	(30,962)	kWh/Cus/Yr
(5) kWh Line Loss Percentage	5.20%	
(6) Group Line Loss Multiplier	1.00	
(7) Annual Change in Customer kWh at Meter	(29,432)	kWh/Cus/Yr
(8) Change in Winter kW per Cust at meter	-9.43	kW/Cus

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years
(2) Economic Life of Incremental Purchased Capacity	30	Years
(3) Economic Life of Incremental Distribution	30	Years
(4) K-Factor for Distribution Capacity	1.3750	

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	\$ 200.00	\$/Cus
(2) Utility Recurring Cost Per Customer	\$ -	\$/Cus/Year
(3) Utility Cost Escalation Rate	2.00%	
(4) Customer Equipment Cost	\$ 3,459.00	\$/Cus
(5) Customer Equipment Cost Escalation Rate	2.00%	
(6) Customer O&M Cost	\$ (373.00)	\$/Cus/Year
(7) Customer O&M Cost Escalation Rate	2.00%	
(8) Customer Tax Credit Per Installation	\$ -	\$/Cus
(9) Customer Tax Credit Escalation Rate	2.00%	
(10) Change in Supply Costs	\$ -	\$/Cus/Year
(11) Supply Costs Escalation Rate	2.00%	
(12) Utility Discount Rate	7.86%	
(13) Utility AFUDC Rate	0.00%	
(14) Utility Nonrecurring Rebate/Incentive	\$ 1,294.00	\$/Cus
(15) Utility Recurring Rebate/Incentive	\$ -	\$/Cus/Year
(16) Utility Rebate/Incentive Escalation Rate	2.00%	

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2005
(2) In-Service Year For Incremental Generation	N/A **
(3) In-Service Year For Distribution	2005
(4) Base Year Incremental Generation Cost	N/A **
(5) Base Year Incremental Transmission Cost	N/A **
(6) Base Year Incremental Distribution Cost	\$35.00 \$/kW
(7) Distribution Cost Escalation Rate	2.00%
(8) Generator Fixed O & M Cost	N/A **
(9) Generator Fixed O&M Escalation Rate	N/A **
(10) Transmission Fixed O & M Cost	N/A **
(11) Distribution Fixed O & M Cost	\$0.87 \$/kW/Yr
(12) Distribution Fixed O&M Escalation Rate	2.00%
(13) Incremental Gen Variable O & M Costs	N/A **
(14) Incre Gen Variable O&M Cost Esc Rate	N/A **
(15) Incremental Gen Capacity Factor	N/A **
(16) Incremental Purchased Energy Cost	\$0.0206 \$/kWh***
(17) Incremental Purchased Energy Cost Esc Rate	1.20%
(18) Incremental Purchased Capacity Cost	\$76.46 \$/kW/Yr***
(19) Incremental Purchased Capacity Cost Esc Rate	1.20%

Stop Revenue Loss at In-Service Year? No

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

(1) Nonpurchased Power Cost In Customer Bill (Base Year)	\$0.0147 \$/kWh
(2) Nonpurchased Power 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	0.00 kW/Mo.

Summary Results for This Analysis

	RIM	Participants*
NPV Benefits(\$000s)	\$ 659	\$ 594
NPV Costs (\$000s)	\$ 456	\$ 97
NPV Net Benefits (\$000s)	\$ 202	\$ 497
Benefit:Cost Ratio	1.444	6.139

*** These values are the weighted average wholesale power costs for 2004

* Supplemental information.

** These are N/A because FPU purchases all of its generation and transmission through wholesale purchased power contracts with JEA and Gulf Power

2005 Demand-Side Management Plan
June 1, 2004



Commercial Indoor Efficient Lighting Rebate Program
 Attachment B
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INPUT DATA -- PART 2

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

1	2	3	4	5	6	7	8	9	10	11
Year	Cumulative Total Participating Customers	Cumulative Participating Customers Adj Free Rides	FPU's Purch. Power Cost in Ret. Rate (\$/kWh)	Marginal Fuel Cost (Decreases) (\$/kWh)	Marginal Fuel Cost (Increases) (\$/kWh)	Replacement Fuel Cost (\$/kWh)	Program kW Effectiveness Factor	Program kWh Effectiveness Factor	Other Costs (\$000)	Other Benefits (\$000)
2005	2	2	\$ 0.03343	\$ 0.02063	\$ 0.02063	\$ 0.03343	1.00	1.00	0.00	0.00
2006	4	4	\$ 0.03343	\$ 0.02091	\$ 0.02091	\$ 0.03343	1.00	1.00	0.00	0.00
2007	6	6	\$ 0.03343	\$ 0.02118	\$ 0.02118	\$ 0.03343	1.00	1.00	0.00	0.00
2008	9	9	\$ 0.03343	\$ 0.02144	\$ 0.02144	\$ 0.03343	1.00	1.00	0.00	0.00
2009	12	12	\$ 0.03343	\$ 0.02169	\$ 0.02169	\$ 0.03343	1.00	1.00	0.00	0.00
2010	16	16	\$ 0.03343	\$ 0.02195	\$ 0.02195	\$ 0.03343	1.00	1.00	0.00	0.00
2011	20	20	\$ 0.03343	\$ 0.02222	\$ 0.02222	\$ 0.03343	1.00	1.00	0.00	0.00
2012	25	25	\$ 0.03343	\$ 0.02248	\$ 0.02248	\$ 0.03343	1.00	1.00	0.00	0.00
2013	31	31	\$ 0.03343	\$ 0.02275	\$ 0.02275	\$ 0.03343	1.00	1.00	0.00	0.00
2014	38	38	\$ 0.03343	\$ 0.02303	\$ 0.02303	\$ 0.03343	1.00	1.00	0.00	0.00
2015	38	38	\$ 0.03343	\$ 0.02330	\$ 0.02330	\$ 0.03343	1.00	1.00	0.00	0.00
2016	38	38	\$ 0.03343	\$ 0.02358	\$ 0.02358	\$ 0.03343	1.00	1.00	0.00	0.00
2017	38	38	\$ 0.03343	\$ 0.02387	\$ 0.02387	\$ 0.03343	1.00	1.00	0.00	0.00
2018	38	38	\$ 0.03343	\$ 0.02415	\$ 0.02415	\$ 0.03343	1.00	1.00	0.00	0.00
2019	38	38	\$ 0.03343	\$ 0.02444	\$ 0.02444	\$ 0.03343	1.00	1.00	0.00	0.00
2020	38	38	\$ 0.03343	\$ 0.02474	\$ 0.02474	\$ 0.03343	1.00	1.00	0.00	0.00
2021	38	38	\$ 0.03343	\$ 0.02503	\$ 0.02503	\$ 0.03343	1.00	1.00	0.00	0.00
2022	38	38	\$ 0.03343	\$ 0.02533	\$ 0.02533	\$ 0.03343	1.00	1.00	0.00	0.00
2023	38	38	\$ 0.03343	\$ 0.02564	\$ 0.02564	\$ 0.03343	1.00	1.00	0.00	0.00
2024	38	38	\$ 0.03343	\$ 0.02594	\$ 0.02594	\$ 0.03343	1.00	1.00	0.00	0.00
2025	38	38	\$ 0.03343	\$ 0.02626	\$ 0.02626	\$ 0.03343	1.00	1.00	0.00	0.00
2026	38	38	\$ 0.03343	\$ 0.02657	\$ 0.02657	\$ 0.03343	1.00	1.00	0.00	0.00
2027	38	38	\$ 0.03343	\$ 0.02689	\$ 0.02689	\$ 0.03343	1.00	1.00	0.00	0.00
2028	38	38	\$ 0.03343	\$ 0.02721	\$ 0.02721	\$ 0.03343	1.00	1.00	0.00	0.00
2029	38	38	\$ 0.03343	\$ 0.02754	\$ 0.02754	\$ 0.03343	1.00	1.00	0.00	0.00
2030	38	38	\$ 0.03343	\$ 0.02787	\$ 0.02787	\$ 0.03343	1.00	1.00	0.00	0.00
2031	38	38	\$ 0.03343	\$ 0.02820	\$ 0.02820	\$ 0.03343	1.00	1.00	0.00	0.00
2032	38	38	\$ 0.03343	\$ 0.02854	\$ 0.02854	\$ 0.03343	1.00	1.00	0.00	0.00
2033	38	38	\$ 0.03343	\$ 0.02888	\$ 0.02888	\$ 0.03343	1.00	1.00	0.00	0.00
2034	38	38	\$ 0.03343	\$ 0.02923	\$ 0.02923	\$ 0.03343	1.00	1.00	0.00	0.00

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UTILITIES

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Incremental T&D Capacity and Incremental Fuel

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

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2005 Demand-Side Management Plan
June 1, 2004



Commercial Indoor Efficient Lighting Rebate Program
Attachment B
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Program Costs & Participants' B & C

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Worksheet for Utility Program Costs and Participants' Benefits & Costs

1	Utility Program Costs, Rebates, & Incentives							Participating Customers' Benefits and Costs						
	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Year	Annual Incremental kWh Generated (\$000)	Utility Nonrecurring Costs (\$000)	Utility Recurring Costs (\$000)	Total Utility Program Costs (\$000)	Utility Nonrecurring Rebates/Incent. (\$000)	Utility Recurring Rebates/Incent. (\$000)	Total Utility Paid Rebates/Incent. (\$000)	Participant Equipment Costs (\$000)	Participant O&M Costs (\$000)	Total Participant Costs (\$000)	Change in Participants' Billed kWh (\$000)	Change in Participants' Billed Fuel (\$000)	Change in Participants' Billed Non-Fuel (\$000)	Change in Participants' Electric Bills (\$000)
2005	(62) \$	0 \$	- \$	0 \$	0 \$	3 \$	- \$	3 \$	7 \$	(1) \$	6 \$	(50) \$	(2) \$	(1) \$
2006	(124) \$	0 \$	- \$	0 \$	0 \$	3 \$	- \$	3 \$	7 \$	(2) \$	6 \$	(118) \$	(4) \$	(2) \$
2007	(186) \$	0 \$	- \$	0 \$	0 \$	3 \$	- \$	3 \$	7 \$	(2) \$	5 \$	(177) \$	(6) \$	(9) \$
2008	(279) \$	1 \$	- \$	1 \$	1 \$	4 \$	- \$	4 \$	11 \$	(4) \$	7 \$	(265) \$	(9) \$	(13) \$
2009	(372) \$	1 \$	- \$	1 \$	1 \$	4 \$	- \$	4 \$	11 \$	(5) \$	6 \$	(353) \$	(12) \$	(5) \$
2010	(495) \$	1 \$	- \$	1 \$	1 \$	6 \$	- \$	6 \$	15 \$	(7) \$	9 \$	(471) \$	(16) \$	(7) \$
2011	(619) \$	1 \$	- \$	1 \$	1 \$	6 \$	- \$	6 \$	16 \$	(8) \$	7 \$	(589) \$	(20) \$	(9) \$
2012	(774) \$	1 \$	- \$	1 \$	1 \$	7 \$	- \$	7 \$	20 \$	(11) \$	9 \$	(736) \$	(25) \$	(11) \$
2013	(960) \$	1 \$	- \$	1 \$	1 \$	9 \$	- \$	9 \$	24 \$	(14) \$	11 \$	(912) \$	(30) \$	(13) \$
2014	(1,177) \$	2 \$	- \$	2 \$	2 \$	11 \$	- \$	11 \$	29 \$	(17) \$	12 \$	(1,118) \$	(37) \$	(16) \$
2015	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(17) \$	(17) \$	(1,118) \$	(37) \$	(16) \$
2016	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(18) \$	(18) \$	(1,118) \$	(37) \$	(16) \$
2017	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(18) \$	(18) \$	(1,118) \$	(37) \$	(16) \$
2018	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(18) \$	(18) \$	(1,118) \$	(37) \$	(16) \$
2019	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(19) \$	(19) \$	(1,118) \$	(37) \$	(16) \$
2020	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(19) \$	(19) \$	(1,118) \$	(37) \$	(16) \$
2021	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(19) \$	(19) \$	(1,118) \$	(37) \$	(16) \$
2022	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(20) \$	(20) \$	(1,118) \$	(37) \$	(16) \$
2023	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(20) \$	(20) \$	(1,118) \$	(37) \$	(16) \$
2024	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(21) \$	(21) \$	(1,118) \$	(37) \$	(16) \$
2025	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(21) \$	(21) \$	(1,118) \$	(37) \$	(16) \$
2026	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(21) \$	(21) \$	(1,118) \$	(37) \$	(16) \$
2027	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(21) \$	(21) \$	(1,118) \$	(37) \$	(16) \$
2028	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(22) \$	(22) \$	(1,118) \$	(37) \$	(16) \$
2029	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(22) \$	(22) \$	(1,118) \$	(37) \$	(16) \$
2030	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(23) \$	(23) \$	(1,118) \$	(37) \$	(16) \$
2031	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(23) \$	(23) \$	(1,118) \$	(37) \$	(16) \$
2032	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(24) \$	(24) \$	(1,118) \$	(37) \$	(16) \$
2033	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(24) \$	(24) \$	(1,118) \$	(37) \$	(16) \$
2034	(1,177) \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(25) \$	(25) \$	(1,118) \$	(37) \$	(16) \$
Nominal	\$ (28,578) \$	9 \$	- \$	9 \$	55 \$	- \$	55 \$	147 \$	(489) \$	(342) \$	(27,166) \$	(908) \$	(400) \$	(1,308) \$
NPV	\$ (9,053) \$	6 \$	- \$	6 \$	36 \$	- \$	36 \$	97 \$	(143) \$	(46) \$	(8,605) \$	(288) \$	(127) \$	(414) \$

2005 Demand-Side Management Plan
June 1, 2004



Commercial Indoor Efficient Lighting Rebate Program
Attachment B
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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 Distribution Cap Costs (\$000s)	Incremental Prog Induced Fuel Costs (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits (\$000s)	Cumulative Discounted Net Benefits (\$000s)
2005	\$ -	\$ 0	\$ 6	\$ -	\$ -	(\$ 2)	(\$ 0)	(\$ 1)	\$ 7	\$ 4	(\$ 3)	(\$ 3)
2006	\$ -	\$ 0	\$ 6	\$ -	\$ -	(\$ 5)	(\$ 0)	(\$ 3)	\$ 6	\$ 8	\$ 2	(\$ 1)
2007	\$ -	\$ 0	\$ 5	\$ -	\$ -	(\$ 7)	(\$ 0)	(\$ 4)	\$ 5	\$ 12	\$ 6	\$ 4
2008	\$ -	\$ 1	\$ 7	\$ -	\$ -	(\$ 11)	(\$ 1)	(\$ 6)	\$ 8	\$ 18	\$ 10	\$ 12
2009	\$ -	\$ 1	\$ 6	\$ -	\$ -	(\$ 15)	(\$ 1)	(\$ 8)	\$ 7	\$ 24	\$ 17	\$ 25
2010	\$ -	\$ 1	\$ 9	\$ -	\$ -	(\$ 20)	(\$ 1)	(\$ 11)	\$ 10	\$ 32	\$ 23	\$ 40
2011	\$ -	\$ 1	\$ 7	\$ -	\$ -	(\$ 26)	(\$ 1)	(\$ 14)	\$ 8	\$ 41	\$ 33	\$ 61
2012	\$ -	\$ 1	\$ 9	\$ -	\$ -	(\$ 33)	(\$ 2)	(\$ 17)	\$ 10	\$ 52	\$ 42	\$ 86
2013	\$ -	\$ 1	\$ 11	\$ -	\$ -	(\$ 41)	(\$ 2)	(\$ 22)	\$ 12	\$ 65	\$ 53	\$ 115
2014	\$ -	\$ 2	\$ 12	\$ -	\$ -	(\$ 51)	(\$ 3)	(\$ 27)	\$ 14	\$ 81	\$ 67	\$ 149
2015	\$ -	\$ -	(\$ 17)	\$ -	\$ -	(\$ 52)	(\$ 3)	(\$ 27)	\$ -	\$ 99	\$ 99	\$ 196
2016	\$ -	\$ -	(\$ 18)	\$ -	\$ -	(\$ 52)	(\$ 3)	(\$ 28)	\$ -	\$ 101	\$ 101	\$ 239
2017	\$ -	\$ -	(\$ 18)	\$ -	\$ -	(\$ 53)	(\$ 3)	(\$ 28)	\$ -	\$ 102	\$ 102	\$ 281
2018	\$ -	\$ -	(\$ 18)	\$ -	\$ -	(\$ 53)	(\$ 3)	(\$ 28)	\$ -	\$ 103	\$ 103	\$ 319
2019	\$ -	\$ -	(\$ 19)	\$ -	\$ -	(\$ 54)	(\$ 3)	(\$ 29)	\$ -	\$ 105	\$ 105	\$ 356
2020	\$ -	\$ -	(\$ 19)	\$ -	\$ -	(\$ 55)	(\$ 3)	(\$ 29)	\$ -	\$ 106	\$ 106	\$ 390
2021	\$ -	\$ -	(\$ 19)	\$ -	\$ -	(\$ 55)	(\$ 3)	(\$ 29)	\$ -	\$ 108	\$ 108	\$ 422
2022	\$ -	\$ -	(\$ 20)	\$ -	\$ -	(\$ 56)	(\$ 3)	(\$ 30)	\$ -	\$ 109	\$ 109	\$ 452
2023	\$ -	\$ -	(\$ 20)	\$ -	\$ -	(\$ 57)	(\$ 4)	(\$ 30)	\$ -	\$ 111	\$ 111	\$ 480
2024	\$ -	\$ -	(\$ 21)	\$ -	\$ -	(\$ 57)	(\$ 4)	(\$ 31)	\$ -	\$ 112	\$ 112	\$ 507
2025	\$ -	\$ -	(\$ 21)	\$ -	\$ -	(\$ 58)	(\$ 4)	(\$ 31)	\$ -	\$ 114	\$ 114	\$ 532
2026	\$ -	\$ -	(\$ 21)	\$ -	\$ -	(\$ 59)	(\$ 4)	(\$ 31)	\$ -	\$ 115	\$ 115	\$ 556
2027	\$ -	\$ -	(\$ 22)	\$ -	\$ -	(\$ 59)	(\$ 4)	(\$ 32)	\$ -	\$ 117	\$ 117	\$ 578
2028	\$ -	\$ -	(\$ 22)	\$ -	\$ -	(\$ 60)	(\$ 4)	(\$ 32)	\$ -	\$ 118	\$ 118	\$ 598
2029	\$ -	\$ -	(\$ 23)	\$ -	\$ -	(\$ 61)	(\$ 4)	(\$ 32)	\$ -	\$ 120	\$ 120	\$ 618
2030	\$ -	\$ -	(\$ 23)	\$ -	\$ -	(\$ 62)	(\$ 4)	(\$ 33)	\$ -	\$ 122	\$ 122	\$ 636
2031	\$ -	\$ -	(\$ 24)	\$ -	\$ -	(\$ 62)	(\$ 4)	(\$ 33)	\$ -	\$ 123	\$ 123	\$ 654
2032	\$ -	\$ -	(\$ 24)	\$ -	\$ -	(\$ 63)	(\$ 4)	(\$ 34)	\$ -	\$ 125	\$ 125	\$ 670
2033	\$ -	\$ -	(\$ 25)	\$ -	\$ -	(\$ 64)	(\$ 4)	(\$ 34)	\$ -	\$ 127	\$ 127	\$ 685
2034	\$ -	\$ -	(\$ 25)	\$ -	\$ -	(\$ 65)	(\$ 4)	(\$ 34)	\$ -	\$ 129	\$ 129	\$ 699

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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)
2005	\$ 7	\$ (1)	\$ -	\$ -	\$ (3)	\$ -	\$ 3	\$ 7	\$ 6	\$ (1)	\$ (1)
2006	\$ 7	\$ (2)	\$ -	\$ -	\$ (6)	\$ -	\$ 3	\$ 7	\$ 10	\$ 3	\$ 2
2007	\$ 7	\$ (2)	\$ -	\$ -	\$ (9)	\$ -	\$ 3	\$ 7	\$ 14	\$ 6	\$ 7
2008	\$ 11	\$ (4)	\$ -	\$ -	\$ (13)	\$ -	\$ 4	\$ 11	\$ 20	\$ 9	\$ 15
2009	\$ 11	\$ (5)	\$ -	\$ -	\$ (17)	\$ -	\$ 4	\$ 11	\$ 26	\$ 15	\$ 26
2010	\$ 15	\$ (7)	\$ -	\$ -	\$ (23)	\$ -	\$ 6	\$ 15	\$ 35	\$ 20	\$ 39
2011	\$ 16	\$ (8)	\$ -	\$ -	\$ (28)	\$ -	\$ 6	\$ 16	\$ 43	\$ 27	\$ 56
2012	\$ 20	\$ (11)	\$ -	\$ -	\$ (35)	\$ -	\$ 7	\$ 20	\$ 54	\$ 34	\$ 76
2013	\$ 24	\$ (14)	\$ -	\$ -	\$ (44)	\$ -	\$ 9	\$ 24	\$ 67	\$ 42	\$ 99
2014	\$ 29	\$ (17)	\$ -	\$ -	\$ (54)	\$ -	\$ 11	\$ 29	\$ 82	\$ 53	\$ 126
2015	\$ -	\$ (17)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 71	\$ 71	\$ 159
2016	\$ -	\$ (18)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 71	\$ 71	\$ 190
2017	\$ -	\$ (18)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 72	\$ 72	\$ 219
2018	\$ -	\$ (18)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 72	\$ 72	\$ 246
2019	\$ -	\$ (19)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 73	\$ 73	\$ 272
2020	\$ -	\$ (19)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 73	\$ 73	\$ 295
2021	\$ -	\$ (19)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 73	\$ 73	\$ 317
2022	\$ -	\$ (20)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 74	\$ 74	\$ 337
2023	\$ -	\$ (20)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 74	\$ 74	\$ 356
2024	\$ -	\$ (21)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 75	\$ 75	\$ 374
2025	\$ -	\$ (21)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 75	\$ 75	\$ 391
2026	\$ -	\$ (21)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 75	\$ 75	\$ 406
2027	\$ -	\$ (22)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 76	\$ 76	\$ 420
2028	\$ -	\$ (22)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 76	\$ 76	\$ 434
2029	\$ -	\$ (23)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 77	\$ 77	\$ 446
2030	\$ -	\$ (23)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 77	\$ 77	\$ 458
2031	\$ -	\$ (24)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 78	\$ 78	\$ 469
2032	\$ -	\$ (24)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 78	\$ 78	\$ 479
2033	\$ -	\$ (25)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 79	\$ 79	\$ 488
2034	\$ -	\$ (25)	\$ -	\$ -	\$ (54)	\$ -	\$ -	\$ -	\$ 79	\$ 79	\$ 497
Nominal	\$ 147	\$ (489)	\$ -	\$ -	\$ (1,308)	\$ -	\$ 55	\$ 147	\$ 1,852	\$ 1,705	
NPV	\$ 97	\$ (143)	\$ -	\$ -	\$ (414)	\$ -	\$ 36	\$ 97	\$ 594	\$ 497	

2005 Demand-Side Management Plan
June 1, 2004



Commercial Indoor Efficient Lighting Rebate Program
 Attachment B
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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 (\$000s)	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)
2005	\$ -	\$ 0	\$ 3	\$ (3)	\$ (2)	\$ (0)	\$ (1)	\$ -	\$ -	\$ 6	\$ 4	\$ (2)	\$ (2)
2006	\$ -	\$ 0	\$ 3	\$ (6)	\$ (5)	\$ (0)	\$ (3)	\$ -	\$ -	\$ 9	\$ 8	\$ (1)	\$ (3)
2007	\$ -	\$ 0	\$ 3	\$ (9)	\$ (7)	\$ (0)	\$ (4)	\$ -	\$ -	\$ 12	\$ 12	\$ 0	\$ (3)
2008	\$ -	\$ 1	\$ 4	\$ (13)	\$ (11)	\$ (1)	\$ (6)	\$ -	\$ -	\$ 18	\$ 18	\$ 0	\$ (3)
2009	\$ -	\$ 1	\$ 4	\$ (17)	\$ (15)	\$ (1)	\$ (8)	\$ -	\$ -	\$ 22	\$ 24	\$ 2	\$ (1)
2010	\$ -	\$ 1	\$ 6	\$ (23)	\$ (20)	\$ (1)	\$ (11)	\$ -	\$ -	\$ 29	\$ 32	\$ 3	\$ 1
2011	\$ -	\$ 1	\$ 6	\$ (28)	\$ (26)	\$ (1)	\$ (14)	\$ -	\$ -	\$ 35	\$ 41	\$ 6	\$ 5
2012	\$ -	\$ 1	\$ 7	\$ (35)	\$ (33)	\$ (2)	\$ (17)	\$ -	\$ -	\$ 44	\$ 52	\$ 8	\$ 10
2013	\$ -	\$ 1	\$ 9	\$ (44)	\$ (41)	\$ (2)	\$ (22)	\$ -	\$ -	\$ 54	\$ 65	\$ 11	\$ 16
2014	\$ -	\$ 2	\$ 11	\$ (54)	\$ (51)	\$ (3)	\$ (27)	\$ -	\$ -	\$ 66	\$ 81	\$ 15	\$ 23
2015	\$ -	\$ -	\$ -	\$ (54)	\$ (52)	\$ (3)	\$ (27)	\$ -	\$ -	\$ 54	\$ 82	\$ 28	\$ 36
2016	\$ -	\$ -	\$ -	\$ (54)	\$ (52)	\$ (3)	\$ (28)	\$ -	\$ -	\$ 54	\$ 83	\$ 29	\$ 49
2017	\$ -	\$ -	\$ -	\$ (54)	\$ (53)	\$ (3)	\$ (28)	\$ -	\$ -	\$ 54	\$ 84	\$ 30	\$ 61
2018	\$ -	\$ -	\$ -	\$ (54)	\$ (53)	\$ (3)	\$ (28)	\$ -	\$ -	\$ 54	\$ 85	\$ 31	\$ 73
2019	\$ -	\$ -	\$ -	\$ (54)	\$ (54)	\$ (3)	\$ (29)	\$ -	\$ -	\$ 54	\$ 86	\$ 32	\$ 84
2020	\$ -	\$ -	\$ -	\$ (54)	\$ (55)	\$ (3)	\$ (29)	\$ -	\$ -	\$ 54	\$ 87	\$ 33	\$ 95
2021	\$ -	\$ -	\$ -	\$ (54)	\$ (55)	\$ (3)	\$ (29)	\$ -	\$ -	\$ 54	\$ 88	\$ 34	\$ 105
2022	\$ -	\$ -	\$ -	\$ (54)	\$ (56)	\$ (3)	\$ (30)	\$ -	\$ -	\$ 54	\$ 89	\$ 35	\$ 115
2023	\$ -	\$ -	\$ -	\$ (54)	\$ (57)	\$ (4)	\$ (30)	\$ -	\$ -	\$ 54	\$ 90	\$ 37	\$ 124
2024	\$ -	\$ -	\$ -	\$ (54)	\$ (57)	\$ (4)	\$ (31)	\$ -	\$ -	\$ 54	\$ 91	\$ 38	\$ 133
2025	\$ -	\$ -	\$ -	\$ (54)	\$ (58)	\$ (4)	\$ (31)	\$ -	\$ -	\$ 54	\$ 93	\$ 39	\$ 141
2026	\$ -	\$ -	\$ -	\$ (54)	\$ (59)	\$ (4)	\$ (31)	\$ -	\$ -	\$ 54	\$ 94	\$ 40	\$ 150
2027	\$ -	\$ -	\$ -	\$ (54)	\$ (59)	\$ (4)	\$ (32)	\$ -	\$ -	\$ 54	\$ 95	\$ 41	\$ 157
2028	\$ -	\$ -	\$ -	\$ (54)	\$ (60)	\$ (4)	\$ (32)	\$ -	\$ -	\$ 54	\$ 96	\$ 42	\$ 165
2029	\$ -	\$ -	\$ -	\$ (54)	\$ (61)	\$ (4)	\$ (32)	\$ -	\$ -	\$ 54	\$ 97	\$ 43	\$ 172
2030	\$ -	\$ -	\$ -	\$ (54)	\$ (62)	\$ (4)	\$ (33)	\$ -	\$ -	\$ 54	\$ 98	\$ 45	\$ 179
2031	\$ -	\$ -	\$ -	\$ (54)	\$ (62)	\$ (4)	\$ (33)	\$ -	\$ -	\$ 54	\$ 100	\$ 46	\$ 185
2032	\$ -	\$ -	\$ -	\$ (54)	\$ (63)	\$ (4)	\$ (34)	\$ -	\$ -	\$ 54	\$ 101	\$ 47	\$ 191
2033	\$ -	\$ -	\$ -	\$ (54)	\$ (64)	\$ (4)	\$ (34)	\$ -	\$ -	\$ 54	\$ 102	\$ 48	\$ 197
2034	\$ -	\$ -	\$ -	\$ (54)	\$ (65)	\$ (4)	\$ (34)	\$ -	\$ -	\$ 54	\$ 103	\$ 50	\$ 202
Nominal	\$ -	\$ 9	\$ 55	\$ (1,308)	\$ (1,369)	\$ (85)	\$ (728)	\$ -	\$ -	\$ 1,372	\$ 2,183	\$ 811	
NPV	\$ -	\$ 6	\$ 36	\$ (414)	\$ (414)	\$ (25)	\$ (220)	\$ -	\$ -	\$ 456	\$ 659	\$ 202	

Section 3 - Energy Education Programs

Conservation Demonstration and Development (CDD) Program

► Program Description

The primary purpose of the Conservation Demonstration and Development (CDD) program is to pursue research, development, and demonstration projects that are designed to promote energy efficiency and conservation. This program will supplement and complement the other demand-side management programs offered by Florida Public Utilities Company.

The CDD program is meant to be an umbrella program for the identification, development, demonstration, and evaluation of promising new end-use technologies. The CDD program does not focus on any specific end-use technology but, instead, will address a wide variety of energy applications.

► Participation Standards

The projects that may be studied within this program will vary greatly and, therefore, will need careful screening. The screening criteria will include the potential for peak demand and energy reductions, the technology's state-of-development, and an evaluation of the degree of potential customer acceptance and marketability.

The activities that may take place under the auspices of this program include:

- Literature searches and reviews
- Engineering appraisals
- Financial analyses of promising programs, projects or technologies
- Baseline data collection
- Field-testing with customers
- Technology demonstrations
- Pilot programs

Field-testing will be limited to the demonstration of emerging end-use technologies that meet the guidelines described in the Program Description section above. Funding for the field-

testing will be constrained by this program's expenditure limitations. If any field-testing or pilot projects require funding beyond these limitations and if Florida Public Utilities Company believes them necessary, the Florida Public Service Commission will be asked to specifically approve them for Energy Conservation Cost Recovery.

Florida Public Utilities Company will limit the total CDD expenditures to a maximum of \$75,000 per year. The Company will also notify the Florida Public Service Commission of any CDD project that exceeds \$15,000. Costs for CDD projects that meet the program's criteria for acceptance will be charged to Energy Conservation Cost Recovery account.

The projects undertaken by this program are research and development projects. The levels of costs and benefits and the potential peak demand and energy reductions are not known with sufficient certainty. The major thrust of the activities performed under the CDD program will be to develop better estimates of these economic drivers.

► **Benefits and Costs**

This program will enable Florida Public Utilities Company to "pursue research, development, and demonstration projects designed to promote energy efficiency and conservation" as stated in the FPSC Order No. 22176 issued November 14, 1989, in Docket No. 890737-PU and is consistent with meeting the goals in Rule 25-17.001 of the Florida Administrative Code.

CDD projects will enable the collection of actual data from field tests. Engineering estimates and modeling techniques can be tested and validated. Future cost-benefit analyses for the subject CDD projects will be more reliable, thereby enabling better assessments of the expected future peak demand and energy conservation potential.

CDD projects will uncover implementation barriers and potential disadvantages thereby enabling customer acceptance and satisfaction to be better gauged. These are important things to learn. Customer response will ultimately determine the success of new ideas and products.

► **Monitoring and Evaluation**

Any technology investigated as a CDD project will be investigated using well-accepted methods of measurement and evaluation. Before any project is approved for study, the project's justification will be clearly documented. The justification will include:

- Detailed project description (a-priori)
- Research design plan
- Project potential
- Project alignment with CDD program goals
- Project costs

All expenditures allocated to this program will be properly accounted for and reported.

All approved CDD projects that do not require field-testing will be fully documented. The documentation will include descriptions of the methodology, modeling, and engineering estimation procedures used to justify the study's results and conclusions.

Specific deliverables that will be provided from all CDD projects include:

- Detailed project description (a-posteriori)
- Conservation potential
- Achieved
- Projected
- Technical evaluation
- Cost-benefit considerations
- Customer acceptance
- Achieved with test subjects
- Projected

These findings will be reported and filed with the Florida Public Service Commission's staff for their review and consideration.

► **Cost-Effectiveness**

Standard cost-effectiveness analysis is not applicable for research and development activities. The purpose of these activities is to discover promising energy efficiency options and changes that customers may someday choose to implement. Customers, on average, will choose to implement the most cost-effective options. Programs like this one serves Florida Public Utilities Company and its energy customers by garnering new, reliable information upon which to base future demand-side management programs and services.

Low Income

Florida Public Utilities Company presently has energy education programs that identify low-cost and no-cost energy conservation measures. To better assist low-income customers in managing their energy purchases, the presentations and formats of these energy education programs are tailored to the audience. These programs provide basic energy education, as well as inform the customers of other specific services, such as the free energy surveys that Florida Public Utilities Company currently offers.

Affordable Housing Builders and Providers

Florida Public Utilities Company will identify the affordable housing builders within the service area and will encourage them to attend educational seminars and workshops related to energy efficient construction, retrofit programs, and financing programs. The Company will also encourage them to participate in the GoodCents Home program. Florida Public Utilities Company will work with the Florida Energy Extension Service and other seminar sponsors to offer a minimum of two seminars and/or workshops per year. Florida Public Utilities Company will work with all sponsors to reduce or eliminate attendance fees for affordable housing providers.