



February 24, 2020

Mr. Adam Teitzman, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee FL 32399-0850

RE: Gulf Power Company's Demand-Side Management Plan:

Dear Mr. Teitzman:

Attached for filing is the Petition for Approval of Proposed Demand-Side Management Plan by Gulf Power Company and the 2020-2024 Demand-Side Management Plan pursuant to Rule 25-17.0021(4), F.A.C., and Order No. PSC-2019-0509-FOF-EG.

Gulf will also be submitting to Staff one hard copy of its filing and a DVD containing Appendix B, which includes the individual program cost-effectiveness screening test results in electronic format.

Sincerely,

A handwritten signature in blue ink that reads "Richard Hume".

Richard Hume
Regulatory Issues Manager

md

Attachments

cc: Gulf Power Company
Russell Badders, Esq., VP & Associate General Counsel
Florida Public Service Commission
Ashley Weisenfeld, Sr Attorney, Office of the General Counsel

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for Approval of Demand-Side
Management Plan of Gulf Power Company

Docket No.:
Filed: February 24, 2020

**GULF POWER COMPANY'S PETITION FOR APPROVAL
OF PROPOSED DEMAND-SIDE MANAGEMENT PLAN**

GULF POWER COMPANY (“Gulf Power,” “Gulf,” or “the Company”), by and through its undersigned counsel and pursuant to section 366.82, Florida Statutes, Rules 25-17.0021 and 28-106.201, Florida Administrative Code (“F.A.C.”) and Order No. PSC-2019-0509-FOF-EG, petitions the Florida Public Service Commission (“Commission”) for approval of its Demand-Side Management Plan (“DSM Plan” or “2020 DSM Plan” or “Plan”) filed herewith and for authorization to recover reasonable and prudent expenditures associated with the implementation of such Plan through the Energy Conservation Cost Recovery (“ECCR”) clause. As grounds for the relief requested by this petition, the Company respectfully states as follows:

1. Notices and communications with respect to this petition should be addressed to:

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2. Gulf Power Company is an investor-owned electric utility with corporate headquarters located at One Energy Place, Pensacola, Florida. The Company owns, maintains and operates an electric generation, transmission and distribution system within the state of Florida through which it provides retail electric service to customers. Gulf is subject to the Florida Energy Efficiency and Conservation Act (“FEECA”) and it recovers certain costs associated with its conservation activities through an ECCR clause that is subject to the Commission’s jurisdiction.

3. The agency affected by this petition is the Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850.

4. This petition is not a petition addressing an agency decision which has already been made. Therefore, Gulf cannot state how it received notice of an agency action, facts that warrant reversal of an agency proposed action, or rules or statutes that require reversal or modification of any agency’s proposed action. This is a petition seeking a proposed agency action, and the facts, rules and statutes that warrant such proposed action are set forth herein.

5. Gulf knows of no material facts in dispute regarding the relief requested herein. The ultimate issue to be decided by the Commission is whether to approve Gulf’s proposed DSM Plan and allow recovery of costs associated therewith to be incurred through the ECCR.

6. Gulf Power currently implements a DSM Plan which was approved by the Commission through Order No. PSC-15-0330-PAA-EG (the “2015 DSM Plan”). On November 26, 2019, the Commission issued Order No. PSC-2019-0509-FOF-EG (the “Goals Order”) in Docket No. 20190016-EG (the “Goals Docket”) establishing new DSM goals for Gulf Power. Pursuant to Rule 25-17.0021(4), F.A.C., Gulf Power is required to submit a new DSM Plan

designed to meet the goals in accordance with the Goals Order within 90 days of the issuance of the Goals Order.

7. Gulf Power, through this petition, formally files a plan that is designed to achieve the numeric goals (on an annual and cumulative basis) approved by the Commission in the Goals Order. The Company's proposed DSM Plan is included as Schedule “1” and is incorporated and made a part hereof by reference. In the Goals Docket, Gulf Power sought Commission approval to establish its 2020 through 2029 residential demand and energy goals at zero and commercial/industrial goals at 15 megawatts (“MW”) (summer), 11 MW (winter) and 0 gigawatt-hours (“GWh”). The Company's proposed goals were based upon the energy and demand savings associated with estimated maximum adoption of measures that passed both the Rate Impact Measure (“RIM”) and the Participant's Test as reflected in the Achievable Potential results prepared by Gulf Power's expert consultant, Nexant, Inc. The level of Gulf Power's proposed goals for the 2020-2029 period was attributable in large measure to changed market conditions including decreased utility load forecasts, more stringent building codes and appliance efficiency standards, and decreased avoided costs for both fuel and generation. In the Goals Order, the Commission declined to adopt the Company's proposed goals. Instead, the Commission established DSM goals for Gulf which are based upon a continuation of the goals established for years 2020-2024 via Order No. PSC-2014-0696-FOF-EU in the 2014 DSM Goals proceeding (Docket No. 20130202-EI).

8. The Company's 2020 DSM Plan is intended to achieve the annual and cumulative goals established through the Goals Order. The Plan includes a diverse portfolio of six residential programs (including a residential low income program), four business programs, and a Conservation Demonstration and Development program for evaluating new technologies. A

detailed description of each proposed DSM program is contained within Section II of the DSM Plan. The Company's comprehensive DSM portfolio includes several new programs and eliminates a number of existing programs. These proposed modifications are intended to increase participation in DSM programs to achieve the goals established by the Commission. A table depicting the changes between the Company's 2015 DSM Plan and the 2020 DSM Plan is included as Appendix "A" to the DSM Plan. As with prior DSM Plans, Gulf Power anticipates that its DSM Plan could evolve over time due to changes in market conditions or system needs, program experience, measurement and evaluation, customer research, or new technology options which may become available. To the extent that plan modifications are warranted, Gulf Power will petition the Commission requesting approval of such modifications.

9. Among the changes included in the 2020 DSM Plan is a proposal to discontinue the Critical Peak Option ("CPO") component of Gulf Power's Rate Schedule Large Power Service –Time-Of-Use Conservation ("LPT"). The CPO was originally approved by the Commission in connection with Gulf Power's 2012 base rate proceeding as an addition to the Company's existing LPT Rate Schedule. See, Order No. PSC-12-0179-FOF-EI, issued April 3, 2012 at p. 118. The CPO was designed to allow business customers on time-of-use rates to participate in a form of critical peak pricing. Structurally, the new CPO introduced a third demand charge for customers on the LPT rate. This third tier demand change was in addition to the Maximum Demand Charge and On- Peak Demand Charge components of the rate. The demand charge applicable to the critical peak period is higher than the On-Peak Demand Charge, but customers with load management abilities can avoid, or substantially reduce, their demand during these short periods, resulting in bill savings to the customer and reduced peak demand requirements on Gulf's grid. In its original form, the CPO was not considered an element of

Gulf Power's DSM Plan and the price differentials among the tiers were achieved by setting different base rate Demand Charges. In connection with its 2016 base rate proceeding, Gulf Power sought approval to designate the CPO as a DSM Program and to use the ECCR Clause to achieve the price differential among the three Demand Charge tiers for the LPT-CPO. The Commission granted its approval in Order No. PSC-2017-0178-S-EI, issued May 16, 2017 at p. 24. See also, Order No. PSC-2017-0434-FOF-EG, issued Nov. 14, 2017 at pp. 8-9 (approving recovery of the On Peak Demand Credits and Critical Peak Demand Charges associated with LPT-CPO through the Energy Conservation Cost Recovery Clause). Subsequent to the inclusion of the CPO as a DSM program, Gulf petitioned the Commission for approval of a new DSM Program and associated experimental rate rider --Rate Rider Curtailable Load ("CL")-- for business customers. Rate Rider CL was approved as a component of Gulf's 2015 DSM program via Order No. PSC-2018-0159-PAA-EI, issued March 21, 2018 and remains a component of Gulf's proposed 2020 DSM Plan. Following approval of Rate Rider CL, all customers previously taking service under LPT-CPO migrated to Rate Rider CL. Presently, no customers take service under LPT-CPO and the Company has no indication that any future customers desire to take service under LPT-CPO. In light of these facts, the Company is proposing to discontinue LPT-CPO as a component of its 2020 DSM Plan. Revised Tariff Sheets implementing proposed changes to Rate Schedules LPT and ECC are therefore attached in legislative and proposed final format for Commission approval as Schedule "2" to this petition.

10. Although the goals established in the 2014 Goals proceeding (and continued in the 2019 Goals proceeding via Order No. PSC-2019-0509-FOF-EG) passed the RIM test at the time of their initial adoption, none of the programs included in the 2020 DSM Plan --with the exception of the Business Curtailable Load Rider-- pass the RIM test. As noted above, a variety

of market conditions have changed since the 2014 Goals proceeding. These changed conditions have impacted program cost-effectiveness results. Cost-effectiveness test results for each program are reflected in Section I B and Appendix “B” of the 2020 DSM Plan. Gulf continues to believe that the RIM test is an important criterion for utility-sponsored DSM programs. Therefore, in order to mitigate the financial impact to the general body of customers, Gulf may choose to cap program participation each year for the residential and business sectors individually once their respective MW and GWh goals have been achieved.

11. Gulf's DSM Plan will advance the policy objectives of Rule 25-17.001, F.A.C. and FEECA while yielding measurable results. The Plan details the programs Gulf intends to utilize to meet its numeric conservation goals. Gulf intends to file program participation standards for administrative approval by Commission Staff within 30 days of the issuance of an order approving its DSM Plan. The Company submits that its proposed DSM Plan should be approved and the Commission should authorize recovery of the reasonable and prudent expenditures associated with the Company's DSM Plan through the ECCR clause, subject to the ongoing review and approval of the Commission.

WHEREFORE, Gulf Power requests that the Commission approve the Company's proposed DSM Plan and associated Tariff revisions which accompany this petition and authorize Gulf Power to recover reasonable and prudent expenditures associated with the implementation of the Company's proposed DSM Plan through the ECCR clause, subject to the ongoing review and approval of the Commission.

Respectfully submitted this 24th day of February, 2020.



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Schedule “1”

GULF POWER COMPANY
2020-2024 DEMAND-SIDE MANAGEMENT PLAN

**BEFORE THE FLORIDA PUBLIC SERVICE
COMMISSION**

FEBRUARY 24, 2020

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INTRODUCTION

Gulf Power Company (GULF) has been delivering cost-effective Demand-Side Management (DSM) programs for more than forty years. These programs have included customer education, load management and energy efficiency initiatives. GULF's DSM efforts through 2019 have resulted in a cumulative Summer peak reduction of more than 500 Megawatts (MW) at the generator and estimated cumulative energy savings of more than 1,079 Gigawatt Hours (GWh) at the generator.

Pursuant to Florida Administrative Code (F.A.C.) Rule 25-17.0021, GULF is submitting its 2020 DSM Plan designed to meet the annual Summer MW, Winter MW and GWh Goals for the Residential and Business sectors established by the Florida Public Service Commission (Commission) in Order No. PSC-2019-0509-FOF-EG. The Commission established GULF's 2020-2024 DSM Goals based on continuing those approved in the 2014 Goals proceeding (Order No. PSC-2014-0696-FOF-EU) for 2020-2024. The Goals set in the 2014 proceeding were based on GULF's Achievable Potential projection of measures that were cost-effective utilizing the Rate Impact Measure (RIM) and Participant cost-effectiveness screening tests during the 2014 goal-setting process. GULF's 2020 DSM Plan to meet these goals represents a diverse portfolio of ten DSM programs. It includes six Residential programs, four Business programs, and a Conservation Demonstration and Development (CDD) program for evaluating new technologies. The 2020 DSM Plan is comprehensive, offering a wide variety of programs for all of GULF's customers. While none of these programs, except the Business Curtailable Load Rider, pass the RIM cost-effectiveness test, these programs represent a mixture of customer offerings including programs that do not have any direct customer costs, programs that offer financial incentives for

the purchase of energy efficient products, and programs that provide ongoing incentives for available capacity. GULF believes the RIM test is an important criterion for utility-sponsored DSM programs since it protects against upward pressure on electric rates. Therefore, in offering these programs, GULF may choose to cap program participation each year for the Residential and Business sectors individually once their respective MW and GWh Goals have been achieved in order to mitigate the financial impact to the general body of customers.

The DSM Plan includes GULF's Residential Home Energy Survey and Business Energy Survey as foundational components of GULF's DSM portfolio. These programs facilitate awareness of other program opportunities and serve as a gateway to helping customers save money. These programs are offered through online, phone and in-person channels and provide education on actions customers can take to reduce their electric cost by participating in GULF's DSM programs and also by taking actions and implementing measures, many at low or no cost, which are not offered as part of GULF's DSM programs.

The 2020 DSM Plan contains three Sections and two Appendices.

- **Section I** – Overview of GULF's 2020 DSM Plan summarizing: how the Plan will achieve GULF's Goals; the programs and measures; and program cost-effectiveness.
- **Section II** – Detailed description of the DSM Programs.
- **Section III** – Projections for the five-year Goals period of customers, participation, penetration, and kW and kWh savings at the meter and the generator.
- **Appendix A** – Comparison of 2015 DSM Plan to Current Plan.
- **Appendix B** – Program-Level Cost-effectiveness evaluations.

SECTION I – OVERVIEW

A. Composition of GULF's 2020 DSM Plan

Table 1 shows the annual Residential and Business Goals for Summer MW, Winter MW and GWh established by Order No. PSC-2019-0509-FOF-EG.

Table 1 – Annual Residential and Business Goals (at the Generator)

Year	Summer MW			Winter MW			GWh		
	Residential	Business	Total	Residential	Business	Total	Residential	Business	Total
2020	6.7	0.8	7.5	3.8	0.2	4.0	6.8	2.5	9.3
2021	7.5	0.9	8.4	4.3	0.2	4.5	7.6	2.7	10.3
2022	8.1	0.9	9.0	4.6	0.3	4.9	8.3	3.0	11.3
2023	8.8	1.0	9.8	5.0	0.3	5.3	8.9	3.2	12.1
2024	9.3	1.1	10.4	5.3	0.3	5.6	9.5	3.4	12.9
Total	40.4	4.7	45.1	23.0	1.3	24.3	41.1	14.8	55.9

GULF has developed a portfolio of DSM programs to achieve the annual Residential and Business DSM Goals. The 2020 DSM Plan's programs and associated measures are shown in Table 2 with detailed descriptions of each provided in Section II. As with prior Plans, GULF anticipates that the Plan could change over time due to: changes in market conditions or system needs; program experience; measurement and evaluation; customer research; or new technology options which may become available. Section III demonstrates how the 2020 DSM Plan meets the DSM Goals in Table 1 above. GULF does not count kW or kWh savings for the educational programs (*i.e.*, Residential Home Energy Survey and Business Energy Survey) or the CDD program.

Table 2 – Residential and Business Programs & Measures¹

Programs	Measures (if multiple per Program)
Residential Home Energy Survey (HES)	Home Energy Survey (HES)
	Online Home Energy Survey
	Phone Energy Survey
Residential Low Income	Various company-installed EE measures
Residential HVAC	
Residential Ceiling Insulation	
Residential High Efficiency Pool Pump	
Energy Select	
<hr/>	
Business Energy Survey (BES)	Business Energy Survey (BES)
	Online Business Energy Survey
Business HVAC	Chillers
	Split/Packaged Direct Expansion (DX)
	Demand Control Ventilation (DCV)
	Energy Recovery Ventilation (ERV)
Curtailable Load	
Business Custom Incentive	
<hr/>	
Conservation Demonstration and Development (CDD)	

¹ Measures listed only when there are multiple measures associated with a program.

B. Cost-Effectiveness Screening Analysis

The Commission-established cost-effectiveness methodology required by Rule 25-17.008, F.A.C., to determine the cost-effectiveness of DSM programs includes the following three screening tests: (a) the RIM test; (b) the Total Resource Cost (TRC) test; and (c) the Participant test. The results for each program under the three preliminary screening tests are summarized in Table 3. The individual program cost-effectiveness screening analyses can be found in Appendix B. GULF used the same assumptions in these cost-effectiveness screening tests as were used for the analyses in the DSM Goals proceeding (Docket No. 20190016-EG). Consistent with past proceedings, cost-effectiveness screenings were not performed for the Residential and Business Energy Survey programs or the Business Custom Incentive program.

Table 3 – Cost-Effectiveness Screening Test Results²

Program	RIM	TRC	Participant
Residential Sector Programs			
Energy Select	0.92	2.03	Infinite
Residential Heat Pump	0.57	0.74	1.34
Residential Ceiling Insulation	0.73	2.75	5.00
Residential Pool Pump	0.53	2.07	4.35
Residential Low Income	0.37	2.05	Infinite
Business Sector Programs			
Business Heating, Ventilating, & Air Conditioning (HVAC)	0.83	0.94	1.15
Curtailable Load	1.00	34.01	Infinite

² Infinite means that the customer has no out of pocket expense.

C. Program Standards

GULF will file for Commission Staff approval Program Standards for all programs within the timeframe specified by the Commission in the Final Order approving GULF's 2020 DSM Plan. The Program Standards will contain the specifics regarding each program's operations. These will be subject to periodic review and may change over time based on factors such as, but not limited to: changes in Codes & Standards; technological advances; operational needs; program results; and technology application assumptions. All program participants and contractors must comply with the requirements specified in the Program Standards.

SECTION II – DSM PROGRAM DESCRIPTIONS

GULF's 2020 DSM Plan incorporates a wide array of programs. It is comprised of ten DSM programs; six Residential programs, four Business programs, and a Conservation and Demonstration and Development (CDD) program for evaluating new technologies. GULF's comprehensive DSM portfolio includes several new programs as compared to GULF's 2015 DSM Plan. These proposed changes are intended to increase participation in DSM programs to achieve the goals established by the Commission. Program changes between the 2020 DSM Plan as compared to GULF's 2015 DSM Plan are provided in Appendix A.

This section includes summaries for each of the programs and provides a general description of the programs' objectives, features and administration. Additional specifics on each program and its operations will be provided in GULF's Program Standards to be filed after the 2020 DSM Plan is approved. All of the programs included in GULF's portfolio have as a primary objective to reduce growth of coincident peak demand and energy consumption. The portfolio addresses the major drivers of a customer's energy consumption and its program mix is designed to address the diversity of GULF's customer types and their needs through providing financial incentives and investing in customer awareness through education.

Post-Installation Verification – Verification will be conducted for all programs where GULF provides a financial incentive. In order to ensure compliance with Program Standards, GULF will, at a minimum, perform verifications of the installations as required by Rule 25-17.003(10), F.A.C.

RESIDENTIAL SECTOR PROGRAM PORTFOLIO

Residential Home Energy Survey

Start Date –1981

The Residential Home Energy Survey is the primary educational program to help customers improve the energy efficiency of their home through energy conservation advice and information that encourages the implementation of efficiency measures and behaviors resulting in energy and utility bill savings. This program also increases the awareness of energy savings opportunities among Gulf's customers.

As part of Gulf Power's overall DSM Plan, many of the recommendations associated with this program are complemented with incentive-based programs to increase the likelihood of customer adoption. In addition to encouraging the installation of energy efficient HVAC equipment and appliances, Gulf Power views this program as a vehicle to promote energy efficient new home construction techniques and thermal envelope upgrades to existing homes.

The Energy Survey program provides customers an assessment of their home energy usage and energy savings opportunities. Customers may choose to have a Gulf Power representative conduct an on-site audit of their home, they may opt to participate in an on-line interactive version of the survey, or they may call in to be assisted with the on-line, interactive version of the survey.

Eligibility – GULF residential customers.

Participant Financial Incentive – Free to the participant. Residential Home Energy Surveys can identify opportunities for customers to receive incentives through other GULF Residential programs.

Marketing Channels – Program promotion will be achieved through an appropriate mix of promotion methods which may include; television, radio, online, and print media. These channels will also be supported, as appropriate, by promotional activities and other marketing approaches.

Demand/Energy Savings Measurement & Evaluation – Not applicable. Savings are not attributed to this program.

Residential Low Income (Community Energy Saver)

Start Date – March, 2010

The Community Energy Saver Program will assist low-income families in addressing energy costs through increased awareness and installation of efficiency measures.

The Community Energy Saver Program will implement a comprehensive package of short payback electric conservation measures at no cost to the customer. In addition to direct installation of the conservation measures, the program will feature a Home Energy Survey that will help educate families on energy efficiency techniques and behavioral changes to help these customers control their energy use and reduce their monthly energy bill.

Program goals include:

- Increasing customer awareness of the amount of energy consumed and energy efficiency opportunities;
- Reducing energy use and costs on monthly utility bills;
- Installing energy efficiency items to improve comfort and reduce energy use; and
- Identifying customer needs that might be met by other programs and leveraging opportunities with other providers such as the Low Income Home Energy Assistance Program (LIHEAP) and Weatherization Assistance Program (WAP).

Eligibility – Existing GULF residential customers who meet certain low income criteria. Eligible customers must reside in defined geographical areas that have at least 50 percent of households with incomes less than 200 percent of the poverty level set by the U.S. Department of Energy for low-income programs; however, all customers in these areas may participate.

Participant Financial Incentives –Participating customers will be provided with energy saving measures at no cost. The value of measures for each household is expected to average \$55.00.

Marketing Channels – GULF personnel, WAP agencies, community-based organizations, faith-based organizations, online, and print media. These channels will be supported, as appropriate, by promotional activities and other marketing approaches.

Demand/Energy Savings Measurement & Evaluation – Engineering modeling analyses calibrated with statistical billing analysis.

Residential Heating, Ventilating, and Air Conditioning (HVAC)

Start Date – 2020

The Heating, Ventilation and Air Conditioning (HVAC) Efficiency Improvement program is designed to increase energy efficiency and improve HVAC cooling and heating system performance for both new and existing single-family homes. Since as much as half of the energy used in a home goes to cooling and heating, customers can save energy and money by installing an efficient system. This program encourages customers to install high-efficiency central heat pumps.

Gulf Power will utilize Participating Independent Contractors (PIC) to assist with field delivery of the HVAC Efficiency Improvement Program. Customers will realize the financial incentives associated with each qualifying measure through reduced pricing by the PICs.

Eligibility – New and existing GULF residential customers occupying single-family homes who install a central heat pump with a SEER rating of 16 or greater.

Participant Financial Incentive – Provided as a credit towards the installation cost on a customer's invoice from a Participating Independent Contractor (PIC). The incentive value is up to a maximum of \$300 per participant.

Marketing Channels – Program promotion will be achieved through an appropriate mix of promotion methods which may include; Residential Home Energy Survey, Participating Independent Contractors (PICs), television, radio, online, and print media. These channels will also be supported, as appropriate, by promotional activities and other marketing approaches.

Demand/Energy Savings Measurement & Evaluation – Engineering modeling analyses, end-use metering data and statistical billing analysis as applicable.

Residential Ceiling Insulation

Start Date – 2020

This Residential Ceiling Insulation program encourages customers to improve the building envelope's thermal efficiency. This program will provide residential customers with incentives to upgrade ceiling insulation levels in existing homes. The objective of this program is to reduce heat gain and heat loss which in turn leads to reduced HVAC loads and operating costs.

Reduced HVAC loads may also result in the installation of lower capacity HVAC equipment with the resulting potential for additional energy, demand and cost benefits.

Gulf Power will utilize Participating Independent Contractors (PIC) to assist with field delivery of the Ceiling Insulation program. Customers will realize the financial incentives associated with each qualifying measure through reduced pricing by the PICs.

Eligibility – Existing GULF residential customers whose homes lack sufficient ceiling insulation. Minimum of R-19 insulation installed to qualify for incentive payment.

Participant Financial Incentives – Provided as a credit towards the installation cost on a customer's invoice from a PIC. The incentive value is up to a maximum of \$300 per participant.

Marketing Channels – Program promotion will be achieved through an appropriate mix of promotion methods which may include; Residential Home Energy Survey, PICs, television, radio, online, and print media. These channels will also be supported, as appropriate, by promotional activities and other marketing approaches.

Demand/Energy Savings Measurement & Evaluation – Engineering modeling analyses, end-use metering data and statistical billing analysis as applicable.

Residential High Efficiency Pool Pump

Start Date: 2020

The High Efficiency Pool Pump Program will provide an incentive to encourage the installation of high-efficiency variable speed or variable flow pool pumping and control equipment in both new and existing residential applications. Because the energy required to power standard pool pumping equipment can represent a significant portion of the total energy consumed in residences with pools, the objective of the program is to reduce the energy, demand, and cost associated with swimming pool operation.

Gulf Power will utilize Participating Independent Contractors (PIC) to assist with field delivery of the High Efficiency Pool Pump Program. Customers will realize the financial incentives associated with each qualifying measure through reduced pricing by the PICs.

Eligibility – New and existing GULF residential customers occupying single-family detached homes who install a high-efficiency speed pool pump.

Participant Financial Incentives – Provided as a credit towards the installation cost on a customer's invoice from a PIC. The incentive value is up to a maximum of \$250 per participant.

Marketing Channels - Program promotion will be achieved through an appropriate mix of promotion methods which may include; Residential Home Energy Survey, PICs, television, radio, online, and print media.. These channels will also be supported, as appropriate, by promotional activities and other marketing approaches.

Demand/Energy Savings Measurement & Evaluation – Engineering modeling analyses, end-use metering data and statistical billing analysis as applicable.

Energy Select

Start Date: 1995

The Energy Select Program is designed to increase the efficiency of energy consumption on Gulf Power's system. The program is an interactive energy management system that allows residential customers to program their central heating and cooling system, electric water heater and pool pump, if applicable, to automatically respond to varying prices of electricity depending upon the time of day, day of week and season. These prices are in relation to the Company's cost of producing or purchasing energy. Energy Select consists of three elements -- a price-responsive programmable thermostat and timers for a water heater and pool pump, a rate featuring four prices for electricity, and an online programming portal. These elements work together to enable customers to choose their own level of comfort and savings.

With this program, customers can save money by programming the largest portion of their energy purchases to occur in the lower price periods, while providing peak demand reduction benefits during the high and critical peak price periods.

Individual Program Measures:

The primary features of this program offering are the following:

Equipment

- Programmable Communicating Thermostat (PCT)
- Load Control Relays (Water Heater, Pool Pump)

These premise-mounted devices allow the customer to program and control the temperature set points and equipment run times for the major energy using appliances in

their home. This automated technology provides automatic response to pricing signals depending on the customer's unique energy purchasing desires. These systems offer conservation of energy, as well as the ability to take advantage of lower cost periods when demand for electricity is not high.

Rate

- Residential Service Variable Price (RSVP). This rate is a Critical Peak Pricing (CPP) mechanism that encourages reduced usage during Gulf Power's peak demand period by participating customers. The rate along with the equipment mentioned above, allows participants to program the majority of their energy purchases to avoid high demand/high price periods and to take advantage of off peak/lower priced electricity. The rate has four price tiers: the low and medium tiers offer cost savings over the standard RS rate and are in effect for 87% of the hours of the year, the high tier is in effect for 12% of the hours and the critical tier is capped at 1% of annual hours.

Communication

- Wide area network communication is facilitated via the customer's broad band internet connection.

Eligibility - GULF residential customers.

Participant Financial Incentive – None

Marketing Channels – Program promotion will be achieved through an appropriate mix of promotion methods which may include; Residential Home Energy Survey, PICs, television,

radio, online, and print media. These channels will also be supported, as appropriate, by promotional activities and other marketing approaches.

Demand/Energy Savings Measurement & Evaluation – Engineering modeling analyses, end-use metering data and statistical billing analysis as applicable

BUSINESS SECTOR PROGRAM PORTFOLIO

Business Energy Survey (BES)

Start Date – 1981

This program educates customers on energy efficiency and encourages them to participate in applicable DSM programs and/or implement other recommended actions not included as part of GULF's Business programs.

This program is a prime tool for GULF's Business Customer Advisors to introduce customers personally to conservation measures including low or no-cost improvements or new electro-technologies to replace old or inefficient equipment. As part of GULF's overall DSM Plan, many of the recommendations associated with this program are complemented with incentive-based programs to increase the likelihood of customer adoption.

There are two delivery channels for the BES: (1) Field BES, which is performed by a GULF representative at the customer's facility; and (2) Online BES, which is performed by the customer using GULF's online application.

Eligibility – GULF business customers.

Participant Financial Incentives – Free to the participant. The BES helps to determine which practices are most appropriate for a particular facility and how to qualify for incentives through other GULF Business programs.

Marketing Channels – Program promotion will be achieved through an appropriate mix of promotion methods which may include; television, radio, online, and print media. These channels will also be supported, as appropriate, by promotional activities and other marketing approaches.

Demand/Energy Savings Measurement & Evaluation – Not applicable. Savings are not attributed to this program.

Business Heating, Ventilating & Air Conditioning (HVAC)

Start Date – 2020

This program encourages business customers to install high-efficiency HVAC systems. The goal of the program is to increase awareness and customer demand for high-efficiency, energy-saving equipment; increase availability and market penetration of energy efficient equipment; and contribute toward long-term energy savings and peak demand reductions. The primary types of eligible HVAC systems include: chillers; split/packaged direct expansion (DX); demand control ventilation (DCV); and energy recovery ventilation (ERV).

Eligibility – GULF business customers.

Participant Financial Incentive – Paid to customers, their designees or designers. The maximum per customer (*i.e.*, per Summer kW reduced) is:

- Chillers – \$210 per Summer kW reduction
- DX – \$180 per Summer kW reduction
- DCV – \$2,010 per Summer kW reduction
- ERV – \$1,270 per Summer kW reduction

Marketing Channels – Program promotion will be achieved through an appropriate mix of promotion methods which may include; BES, Gulf personnel, television, radio, online, and print media. These channels will also be supported, as appropriate, by promotional activities and other marketing approaches.

Demand/Energy Savings Measurement & Evaluation – Engineering modeling analyses, end-use metering data and statistical billing analysis as applicable.

Curtailable Load Rider (CL)

Start Date – 2018

The Curtailable Load (CL) program provides qualifying customers capacity payments for electric load which can be curtailed during certain conditions as described in Rate Rider CL.

The CL rider is available to customers taking service under rate schedules LP, LPT, PX, or PXT and who also execute a Curtailable Load Service agreement (CL Service Agreement).

Qualifying customers must commit a minimum of 4,000 KW of non-firm load.

Eligibility – GULF business customers who meet the requirements of the CL Rider (Tariff Sheet Nos. 6.105 – 6.109).

Participant Financial Incentives – Monthly credit on the electric bill calculated as specified in the CL Rider.

Marketing Channels – Program promotion will be achieved through Gulf customer advisors who can assist potential customers with evaluation and benefits of this program.

Demand/Energy Savings Measurement & Evaluation – Metered performance of participants during events and system tests.

Business Custom Incentive (BCI)

Start Date – 2000

The Business Custom Incentive (BCI) program is designed to establish the capability and process to offer advanced energy services and energy efficient end-use equipment to Business customers. Specifically, the types of projects covered under this program would be demand reduction or efficiency improvement retrofits that are beyond the scope of other programs included in this Plan.

A BCI project may be developed as a result of a Business Energy Survey or a customer-generated project proposal. The project must provide quantifiable demand and energy savings to be considered for a custom incentive. Each project will be evaluated for cost-effectiveness in accordance with Commission-approved tests before an incentive is established. Any incentive associated with this program will be provided upon successful installation and verification of the energy saving measures associated with the project.

Eligibility – GULF Business customers.

Participant Financial Incentive – The level of incentives contemplated under this program will be determined based on the cost-effectiveness of the project and not exceed an amount that brings the project to a two-year payback.

Marketing Channels – Program promotion will be achieved through an appropriate mix of promotion methods which may include; Business Energy Survey and Gulf personnel. These channels will also be supported, as appropriate, by promotional activities and other marketing approaches.

Demand/Energy Savings Measurement & Evaluation – Gulf Power will monitor and evaluate program performance and progress toward goal achievement on a continual basis. Monitoring and evaluation will be administered on a case by case basis. Energy efficiency levels resulting in lower operating costs, improved customer perception, and kW and kWh reductions will be monitored in determining the effectiveness of this program.

OTHER PROGRAMS

Conservation Demonstration and Development (CDD)

Start Date –1990

The primary purpose of this program is to allow GULF to “pursue research, development and demonstration projects designed to promote energy efficiency and conservation” as stated in Order No. 22176 issued November 14, 1989, Docket No. 890737-PU, and is consistent with meeting the goals in Rule 25-17.001, Florida Administrative Code. This program enhances and complements the residential and business conservation programs currently implemented at GULF by evaluating new and existing technologies and program designs that may be incorporated in future program offerings. Areas of research may include energy and demand savings, technology maturity and customer acceptance.

GULF limits expenditures to an annual maximum of \$250,000 for all projects. Additionally, GULF will submit a report to the FPSC for any project that exceeds \$25,000.

Demand/Energy Savings Measurement & Evaluation – GULF will utilize a variety of approaches to measure the energy and demand savings associated with the CDD projects including engineering modeling analyses, end-use metering data and statistical billing analysis as applicable.

Residential Service Time of Use (RSTOU) Rate Pilot – The RSTOU rate pilot is one of several CDD programs implemented pursuant to the 2015 DSM Plan. The purpose of this pilot was to evaluate the use of customer-owned equipment to automatically respond and take advantage of a variable pricing structure with a critical peak component. In 2017, the Commission approved extension of the RSTOU pilot (and its associated Rate Schedule RSTOU)

until December 31, 2020, to allow interested customers to remain on the rate until the company filed a new DSM Plan. See, Order No. PSC-2017-0434-FOF-EG, issued on November 14, 2017. The pilot has largely been completed and GULF will not be requesting continuation of the program and accompanying rate schedule beyond December 31, 2020.

SECTION III – PROGRAM PROJECTIONS³

Table 4 - Total Customers

	2020	2021	2022	2023	2024
Residential (Premises)	415,321	419,169	422,477	425,601	428,685
Business (Summer kW)	725,802	730,375	734,392	738,137	741,828

Table 5 - Eligible Customers

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	379,234	382,039	383,988	385,511	386,747
Residential Heat Pump	413,524	416,172	418,130	419,754	421,188
Residential Ceiling Insulation	413,524	416,572	418,980	421,104	423,013
Residential Pool Pump	78,570	78,151	77,454	76,598	75,584
Residential Low Income	144,733	142,330	139,738	137,081	134,411
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	725,802	729,975	733,552	736,812	739,973
Curtailable Load	715,902	719,611	722,679	725,370	727,893
Business Custom Incentive	725,802	730,375	734,392	738,137	741,828

Table 6 - Annual Participants

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	2,033	2,258	2,418	2,588	2,667
Residential Heat Pump	1,200	1,350	1,500	1,650	1,800
Residential Ceiling Insulation	800	900	1,000	1,175	1,300
Residential Pool Pump	1,150	1,325	1,450	1,600	1,750
Residential Low Income	3,750	3,750	3,750	3,750	3,750
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	400	440	485	530	570
Curtailable Load	864	949	1,054	1,168	1,291
Business Custom Incentive	-	-	-	-	-

Table 7 - Cumulative Penetration Levels

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	0.5%	1.1%	1.7%	2.4%	3.1%
Residential Heat Pump	0.3%	0.6%	1.0%	1.4%	1.8%
Residential Ceiling Insulation	0.2%	0.4%	0.6%	0.9%	1.2%
Residential Pool Pump	1.5%	3.2%	5.1%	7.2%	9.6%
Residential Low Income	2.6%	5.3%	8.1%	10.9%	13.9%
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	0.1%	0.1%	0.2%	0.3%	0.3%
Curtailable Load	0.1%	0.3%	0.4%	0.6%	0.7%
Business Custom Incentive	0.0%	0.0%	0.0%	0.0%	0.0%

³ The specific number of participants in Table 6 for the Business Custom Incentive program is not projected due to the unique nature of projects under this program

Table 8 - Total Summer kW Savings (at the Generator)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	3,855	4,282	4,585	4,908	5,057
Residential Heat Pump	405	455	506	556	607
Residential Ceiling Insulation	465	523	582	683	756
Residential Pool Pump	1,735	1,999	2,187	2,414	2,640
Residential Low Income	240	240	240	240	240
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	421	464	511	558	600
Curtailable Load	910	1,000	1,110	1,230	1,360
Business Custom Incentive	-	-	-	-	-
Residential Subtotal	6,700	7,500	8,100	8,801	9,301
Business Subtotal	1,332	1,463	1,621	1,789	1,961
Grand Total	8,032	8,963	9,722	10,590	11,261

Table 9 - Total Winter kW Savings (at the Generator)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	2,292	2,545	2,726	2,917	3,006
Residential Heat Pump	430	484	537	591	645
Residential Ceiling Insulation	813	915	1,017	1,195	1,322
Residential Pool Pump	-	-	-	-	-
Residential Low Income	499	499	499	499	499
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	659	725	799	873	939
Curtailable Load	693	761	845	937	1,035
Business Custom Incentive	-	-	-	-	-
Residential Subtotal	4,034	4,443	4,779	5,202	5,472
Business Subtotal	1,352	1,486	1,644	1,810	1,974
Grand Total	5,386	5,929	6,423	7,012	7,446

Table 10 - Total Annual kWh Savings (at the Generator)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	1,574,646	1,748,918	1,872,845	2,004,517	2,065,706
Residential Heat Pump	1,531,382	1,722,805	1,914,228	2,105,650	2,297,073
Residential Ceiling Insulation	1,758,371	1,978,167	2,197,963	2,582,607	2,857,352
Residential Pool Pump	3,193,120	3,679,029	4,026,108	4,442,602	4,859,096
Residential Low Income	2,672,252	2,672,252	2,672,252	2,672,252	2,672,252
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	1,666,005	1,832,605	2,020,031	2,207,456	2,374,057
Curtailable Load	910	1,000	1,111	1,231	1,360
Business Custom Incentive	834,000	867,000	980,000	993,000	1,026,000
Residential Subtotal	10,729,771	11,801,172	12,683,396	13,807,629	14,751,480
Business Subtotal	2,500,915	2,700,605	3,001,142	3,201,687	3,401,417
Grand Total	13,230,686	14,501,777	15,684,538	17,009,316	18,152,897

Table 11 - Total Summer kW Savings (at the Meter)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	3,659	4,064	4,352	4,658	4,801
Residential Heat Pump	384	432	480	528	576
Residential Ceiling Insulation	442	497	552	649	718
Residential Pool Pump	1,647	1,897	2,076	2,291	2,506
Residential Low Income	228	228	228	228	228
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	400	440	485	530	570
Curtailable Load	864	949	1,054	1,168	1,291
Business Custom Incentive	-	-	-	-	-
Residential Subtotal	6,360	7,119	7,689	8,354	8,828
Business Subtotal	1,264	1,389	1,539	1,698	1,861
Grand Total	7,624	8,508	9,228	10,052	10,689

Table 12 - Total Winter kW Savings (at the Meter)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	2,175	2,416	2,587	2,769	2,854
Residential Heat Pump	408	459	510	561	612
Residential Ceiling Insulation	772	869	965	1,134	1,255
Residential Pool Pump	-	-	-	-	-
Residential Low Income	474	474	474	474	474
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	625	688	758	829	891
Curtailable Load	658	722	802	889	983
Business Custom Incentive	-	-	-	-	-
Residential Subtotal	3,829	4,217	4,536	4,938	5,194
Business Subtotal	1,283	1,410	1,561	1,718	1,874
Grand Total	5,112	5,628	6,097	6,655	7,068

Table 13 - Total Annual kWh Savings (at the Meter)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	1,494,255	1,659,630	1,777,230	1,902,180	1,960,245
Residential Heat Pump	1,453,200	1,634,850	1,816,500	1,998,150	2,179,800
Residential Ceiling Insulation	1,668,600	1,877,175	2,085,750	2,450,756	2,711,475
Residential Pool Pump	3,030,101	3,491,203	3,820,562	4,215,792	4,611,023
Residential Low Income	2,535,825	2,535,825	2,535,825	2,535,825	2,535,825
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	1,580,950	1,739,045	1,916,902	2,094,758	2,252,853
Curtailable Load	864	949	1,054	1,168	1,291
Business Custom Incentive	816,094	850,256	959,385	974,568	1,008,730
Residential Subtotal	10,181,981	11,198,683	12,035,867	13,102,703	13,998,368
Business Subtotal	2,397,908	2,590,250	2,877,341	3,070,494	3,262,874
Grand Total	12,579,888	13,788,933	14,913,207	16,173,198	17,261,242

Table 14 - Summer kW Savings - per Customer (at the Generator)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	1.90	1.90	1.90	1.90	1.90
Residential Heat Pump	0.34	0.34	0.34	0.34	0.34
Residential Ceiling Insulation	0.58	0.58	0.58	0.58	0.58
Residential Pool Pump	1.51	1.51	1.51	1.51	1.51
Residential Low Income	0.06	0.06	0.06	0.06	0.06
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	1.05	1.05	1.05	1.05	1.05
Curtailable Load	1.05	1.05	1.05	1.05	1.05
Business Custom Incentive	-	-	-	-	-

Table 15 - Winter kW Savings - per Customer (at the Generator)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	1.13	1.13	1.13	1.13	1.13
Residential Heat Pump	0.36	0.36	0.36	0.36	0.36
Residential Ceiling Insulation	1.02	1.02	1.02	1.02	1.02
Residential Pool Pump	-	-	-	-	-
Residential Low Income	0.13	0.13	0.13	0.13	0.13
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	1.65	1.65	1.65	1.65	1.65
Curtailable Load	0.80	0.80	0.80	0.80	0.80
Business Custom Incentive	-	-	-	-	-

Table 16 - Annual kWh Savings - per Customer (at the Generator)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	775	775	775	775	775
Residential Heat Pump	1,276	1,276	1,276	1,276	1,276
Residential Ceiling Insulation	2,198	2,198	2,198	2,198	2,198
Residential Pool Pump	2,777	2,777	2,777	2,777	2,777
Residential Low Income	713	713	713	713	713
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	4,165	4,165	4,165	4,165	4,165
Curtailable Load	1.05	1.05	1.05	1.05	1.05
Business Custom Incentive	-	-	-	-	-

Table 17 - Summer kW Savings - per Customer (at the Meter)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	1.80	1.80	1.80	1.80	1.80
Residential Heat Pump	0.32	0.32	0.32	0.32	0.32
Residential Ceiling Insulation	0.55	0.55	0.55	0.55	0.55
Residential Pool Pump	1.43	1.43	1.43	1.43	1.43
Residential Low Income	0.06	0.06	0.06	0.06	0.06
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	1.00	1.00	1.00	1.00	1.00
Curtailable Load	1.00	1.00	1.00	1.00	1.00
Business Custom Incentive	-	-	-	-	-

Table 18 - Winter kW Savings - per Customer (at the Meter)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	1.07	1.07	1.07	1.07	1.07
Residential Heat Pump	0.34	0.34	0.34	0.34	0.34
Residential Ceiling Insulation	0.97	0.97	0.97	0.97	0.97
Residential Pool Pump	-	-	-	-	-
Residential Low Income	0.13	0.13	0.13	0.13	0.13
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	1.56	1.56	1.56	1.56	1.56
Curtailable Load	0.76	0.76	0.76	0.76	0.76
Business Custom Incentive	-	-	-	-	-

Table 19 - Annual kWh Savings - per Customer (at the Meter)

Programs	2020	2021	2022	2023	2024
Residential Portfolio					
Energy Select	735	735	735	735	735
Residential Heat Pump	1,211	1,211	1,211	1,211	1,211
Residential Ceiling Insulation	2,086	2,086	2,086	2,086	2,086
Residential Pool Pump	2,635	2,635	2,635	2,635	2,635
Residential Low Income	676	676	676	676	676
Business Portfolio					
Business Heating, Ventilating, & Air Conditioning (HVAC)	3,952	3,952	3,952	3,952	3,952
Curtailable Load	1.00	1.00	1.00	1.00	1.00
Business Custom Incentive	-	-	-	-	-

APPENDIX A – Comparison of 2020 DSM Plan to the Current DSM Plan

Residential Programs

2015	2020
Residential Energy Audit and Education	Residential Home Energy Survey (HES) (Renamed)
Community Energy Saver	Residential Low Income - Community Energy Saver
HVAC Efficiency	Residential HVAC (New)
HVAC Maintenance	<i>Discontinued</i>
HVAC Quality Installation	<i>Discontinued</i>
Duct Repair	<i>Discontinued</i>
Residential Building Efficiency	<i>Discontinued</i>
High Performance Windows	<i>Discontinued</i>
Reflective Roof	<i>Discontinued</i>
Energy Star Window A/C	<i>Discontinued</i>
	Residential Ceiling Insulation (New)
	Residential High Efficiency Pool Pump (New)
Energy Select	Energy Select
Residential Custom Incentive	<i>Discontinued</i>

Business Programs

2015	2020
Commercial/Industrial Audit Program	Business Energy Survey (BES) (Renamed)
Commercial HVAC Efficiency Improvement	Business HVAC (New)
HVAC Retrocommissioning	<i>Discontinued</i>
Commercial Building Efficiency	<i>Discontinued</i>
Geothermal Heat Pump	<i>Discontinued</i>
Ceiling/Roof Insulation	<i>Discontinued</i>
Reflective Roofing	<i>Discontinued</i>
Critical Peak Option for Rate LPT⁴	<i>Discontinued</i>
Curtailable Load⁵	Curtailable Load
Business Custom Incentive	Business Custom Incentive
Conservation Demonstration and Development (CDD)	Conservation Demonstration and Development (CDD)

⁴ Approved as part of the 2015 DSM Program in Order No. PSC-2017-0434-FOF-EG, issued November 14, 2017.

⁵ Approved in Order No. PSC-2018-0159-PAA-EI, issued March 21, 2018.

APPENDIX B – Program-Level Cost-Effectiveness Analysis

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	-1.36	kW/Cus
(2) Change in Peak kW per Customer at generator	-1.68	kW Gen/Cus
(3) kW Line Loss Percentage	5.35%	
(4) Change in KWh per Customer at generator	(775)	kWh/Cus/Yr
(5) kWh Line Loss Percentage	5.38%	
(6) Group Line Loss Multiplier	1.0012	
(7) Annual Change in Customer kWh at Meter	(735)	kWh/Cus/Yr

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years
(2) Economic Life of Incremental Generation	40	Years
(3) Economic Life of Incremental T&D	42	Years
(4) K-Factor for Generation	1.3072	
(5) K-Factor for T&D	1.3060	
* (6) Switch: Rev Req (0) or Val-of-Def (1)	1	

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	\$0.00	\$/Cus
(2) Utility Recurring Cost Per Customer	\$0.00	\$/Cus/Year
(3) Utility Cost Escalation Rate	0.00%	
(4) Customer Equipment Cost	\$0.00	\$/Cus
(5) Customer Equipment Cost Escalation Rate	0.00%	
(6) Customer O&M Cost	\$0.00	\$/Cus/Year
(7) Customer O&M Cost Escalation Rate	2.10%	
* (8) Customer Tax Credit Per Installation	\$0.00	\$/Cus
* (9) Customer Tax Credit Escalation Rate	2.10%	
* (10) Change in Supply Costs	\$0.00	\$/Cus/Year
* (11) Supply Costs Escalation Rate	2.10%	
* (12) Utility Discount Rate	7.25%	
* (13) Utility AFUDC Rate	5.73%	
* (14) Utility Nonrecurring Rebate/Incentive	\$0.00	\$/Cus
* (15) Utility Recurring Rebate/Incentive	\$0.00	\$/Cus/Year
* (16) Utility Rebate/Incentive Escalation Rate	0.00%	

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2019
(2) In-Service Year For Incremental Generation	2024**
(3) In-Service Year For Incremental T & D	2020
(4) Base Year Incremental Generation Cost	\$806.95 \$/kW
(5) Base Year Incremental Transmission Cost	\$205.00 \$/kW
(6) Base Year Incremental Distribution Cost	\$173.77 \$/kW
(7) Gen, Tran, & Dist Cost Escalation Rate	2.10%
(8) Generator Fixed O & M Cost	\$59.33 \$/kW/Yr
(9) Generator Fixed O&M Escalation Rate	0.24%
(10) Transmission Fixed O & M Cost	\$3.87 \$/kW/Yr
(11) Distribution Fixed O & M Cost	\$6.68 \$/kW/Yr
(12) &D Fixed O&M Escalation Rate	2.10%
(13) Incremental Gen Variable O & M Costs	\$0.00 \$/kW/Yr
(14) Inre Gen Variable O&M Cost Esc Rate	0.00%
(15) Incremental Gen Capacity Factor	81.49%
(16) Incremental Generating Unit Fuel Cost	\$0.0314 \$/kW/h
(17) Incremental Gen Unit Fuel Esc Rate	2.42%
(18) Incremental Purchased Capacity Cost	\$12.54 \$/kW/YR
(19) Incremental Capacity Cost Esc Rate	7.57%

Stop Revenue Loss at In-Service Year? (Y=1, N=0)

0

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

(1) Non-Fuel Cost In Customer Bill (Base Year)	\$0.0767 \$/kWh
(2) Non-Fuel Escalation Rate	Per Table
(3) Customer Demand Charge Per kW (Base Year)	\$0.0000 \$/kW/Mo
(4) Demand Charge Escalation Rate	Per Table
* (5) Average Annual Change in Monthly Billing kW	0 kW/Mo.

Summary Results for This Analysis

Participants	TRC	RIM
NPV Benefits (\$000s)	\$25,883	\$25,883
NPV Costs (\$000s)	\$12,743	\$28,232
NPV Net Benefits (\$000s)	\$13,140	\$15,489
Benefit:Cost Ratio	2.031 ▶	#DIV/0!
		0.917

* Supplemental information.

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

Total Resource Cost-Effectiveness Measure

Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code												
1	2	3	4	5	6	7	8	9	10	11	12	13
Year	Change in Electric Supply Costs (\$'000s)	Utility's Program Costs (\$'000s)	Participants' Program Costs (\$'000s)	Other Costs (\$'000s)	Other Benefits (\$'000s)	Incremental Generation Cap Costs (\$'000s)	Incremental T&D Cap Costs (\$'000s)	Prog Induced Fuel Costs (\$'000s)	Total Costs (\$'000s)	Total Benefits (\$'000s)	Total Net Benefits (\$'000s)	Cumulative Discounted Net Benefits (\$'000s)
2019	\$0	\$1,039	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$0	\$1,181	\$0	\$0	\$0	\$0	\$0	(\$48)	\$1,039	\$186	(\$853)	(\$96)
2021	\$0	\$1,325	\$0	\$0	\$0	\$0	\$0	(\$115)	\$1,181	\$410	(\$771)	(\$46)
2022	\$0	\$1,469	\$0	\$0	\$0	\$0	\$0	(\$125)	\$1,325	\$660	(\$664)	(\$2,005)
2023	\$0	\$1,610	\$0	\$0	\$0	\$0	\$0	(\$189)	\$1,469	\$951	(\$519)	(\$2,396)
2024	\$0	\$1,574	\$0	\$0	\$0	\$0	\$0	(\$877)	\$1,610	\$3,626	\$2,016	(\$976)
2025	\$0	\$1,539	\$0	\$0	\$0	\$0	\$0	(\$850)	\$1,574	\$1,915	\$282	
2026	\$0	\$1,504	\$0	\$0	\$0	\$0	\$0	(\$825)	\$1,539	\$3,378	\$1,839	
2027	\$0	\$1,260	\$0	\$0	\$0	\$0	\$0	(\$800)	\$1,504	\$3,269	\$1,765	
2028	\$0	\$1,226	\$0	\$0	\$0	\$0	\$0	(\$776)	\$1,260	\$3,162	\$3,429	
2029	\$0	\$826	\$0	\$0	\$0	\$0	\$0	(\$753)	\$1,226	\$3,061	\$4,340	
2030	\$0	\$785	\$0	\$0	\$0	\$0	\$0	(\$730)	\$1,57	\$826	\$5,329	
2031	\$0	\$745	\$0	\$0	\$0	\$0	\$0	(\$708)	\$1,58	\$785	\$6,228	
2032	\$0	\$705	\$0	\$0	\$0	\$0	\$0	(\$687)	\$1,65	\$745	\$7,047	
2033	\$0	\$665	\$0	\$0	\$0	\$0	\$0	(\$666)	\$1,67	\$705	\$7,793	
2034	\$0	\$625	\$0	\$0	\$0	\$0	\$0	(\$646)	\$1,68	\$665	\$8,472	
2035	\$0	\$586	\$0	\$0	\$0	\$0	\$0	(\$627)	\$1,72	\$625	\$9,093	
2036	\$0	\$557	\$0	\$0	\$0	\$0	\$0	(\$608)	\$1,73	\$586	\$9,568	
2037	\$0	\$564	\$0	\$0	\$0	\$0	\$0	(\$590)	\$1,71	\$557	\$10,172	
2038	\$0	\$571	\$0	\$0	\$0	\$0	\$0	(\$572)	\$1,73	\$564	\$10,329	
2039	\$0	\$579	\$0	\$0	\$0	\$0	\$0	(\$555)	\$1,73	\$571	\$11,036	
2040	\$0	\$586	\$0	\$0	\$0	\$0	\$0	(\$538)	\$1,74	\$579	\$11,398	
2041	\$0	\$595	\$0	\$0	\$0	\$0	\$0	(\$522)	\$1,75	\$586	\$11,720	
2042	\$0	\$603	\$0	\$0	\$0	\$0	\$0	(\$506)	\$1,73	\$595	\$12,004	
2043	\$0	\$611	\$0	\$0	\$0	\$0	\$0	(\$491)	\$1,74	\$603	\$12,267	
2044	\$0	\$620	\$0	\$0	\$0	\$0	\$0	(\$476)	\$1,75	\$611	\$12,481	
2045	\$0	\$629	\$0	\$0	\$0	\$0	\$0	(\$462)	\$1,72	\$620	\$12,678	
2046	\$0	\$638	\$0	\$0	\$0	\$0	\$0	(\$448)	\$1,73	\$629	\$12,852	
2047	\$0	\$648	\$0	\$0	\$0	\$0	\$0	(\$435)	\$1,73	\$638	\$13,005	
								(\$422)	\$1,70	\$648	\$1,673	

Nominal NPV	\$25,867	\$0,000	\$0,000	\$43,212	(\$17,142)	\$25,867	\$65,106	\$39,239
Discount Rate =	7.2%							
Benefit/Cost Ratio =	2.03							

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 Equipment 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)
2019	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$0	\$0	\$0	\$0	(\$323)	\$0	\$0	\$0	\$323	\$323	\$301
2021	\$0	\$0	\$0	\$0	(\$696)	\$0	\$0	\$0	\$698	\$698	\$908
2022	\$0	\$0	\$0	\$0	(\$1,112)	\$0	\$0	\$0	\$1,112	\$1,112	\$1,809
2023	\$0	\$0	\$0	\$0	(\$1,564)	\$0	\$0	\$0	\$1,564	\$1,564	\$2,991
2024	\$0	\$0	\$0	\$0	(\$2,027)	\$0	\$0	\$0	\$2,027	\$2,027	\$4,419
2025	\$0	\$0	\$0	\$0	(\$1,921)	\$0	\$0	\$0	\$1,921	\$1,921	\$5,981
2026	\$0	\$0	\$0	\$0	(\$1,839)	\$0	\$0	\$0	\$1,839	\$1,839	\$6,807
2027	\$0	\$0	\$0	\$0	(\$1,759)	\$0	\$0	\$0	\$1,759	\$1,759	\$7,812
2028	\$0	\$0	\$0	\$0	(\$1,682)	\$0	\$0	\$0	\$1,682	\$1,682	\$8,707
2029	\$0	\$0	\$0	\$0	(\$1,614)	\$0	\$0	\$0	\$1,614	\$1,614	\$9,509
2030	\$0	\$0	\$0	\$0	(\$1,550)	\$0	\$0	\$0	\$1,550	\$1,550	\$10,226
2031	\$0	\$0	\$0	\$0	(\$1,484)	\$0	\$0	\$0	\$1,484	\$1,484	\$10,867
2032	\$0	\$0	\$0	\$0	(\$1,424)	\$0	\$0	\$0	\$1,424	\$1,424	\$11,440
2033	\$0	\$0	\$0	\$0	(\$1,363)	\$0	\$0	\$0	\$1,363	\$1,363	\$11,951
2034	\$0	\$0	\$0	\$0	(\$1,305)	\$0	\$0	\$0	\$1,305	\$1,305	\$12,407
2035	\$0	\$0	\$0	\$0	(\$1,251)	\$0	\$0	\$0	\$1,251	\$1,251	\$12,815
2036	\$0	\$0	\$0	\$0	(\$1,192)	\$0	\$0	\$0	\$1,192	\$1,192	\$13,177
2037	\$0	\$0	\$0	\$0	(\$1,145)	\$0	\$0	\$0	\$1,145	\$1,145	\$13,502
2038	\$0	\$0	\$0	\$0	(\$1,099)	\$0	\$0	\$0	\$1,099	\$1,099	\$13,793
2039	\$0	\$0	\$0	\$0	(\$1,077)	\$0	\$0	\$0	\$1,077	\$1,077	\$14,058
2040	\$0	\$0	\$0	\$0	(\$1,036)	\$0	\$0	\$0	\$1,036	\$1,036	\$14,296
2041	\$0	\$0	\$0	\$0	(\$996)	\$0	\$0	\$0	\$996	\$996	\$14,509
2042	\$0	\$0	\$0	\$0	(\$947)	\$0	\$0	\$0	\$947	\$947	\$14,699
2043	\$0	\$0	\$0	\$0	(\$913)	\$0	\$0	\$0	\$913	\$913	\$14,869
2044	\$0	\$0	\$0	\$0	(\$879)	\$0	\$0	\$0	\$879	\$879	\$15,022
2045	\$0	\$0	\$0	\$0	(\$846)	\$0	\$0	\$0	\$846	\$846	\$15,158
2046	\$0	\$0	\$0	\$0	(\$812)	\$0	\$0	\$0	\$812	\$812	\$15,281
2047	\$0	\$0	\$0	\$0	(\$780)	\$0	\$0	\$0	\$780	\$780	\$15,391
2048	\$0	\$0	\$0	\$0	(\$749)	\$0	\$0	\$0	\$749	\$749	\$15,489

Nominal NPV	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,388
Discount Rate =	7.25%										\$15,489
Benefit/Cost Ratio =	#DIV/0!										

Run Date:

File name: Energy Select

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 Cap Costs (\$000s)	Incremental Fuel Costs (\$000s)	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)
2019	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	
2020	\$0.000	\$1,038,902	\$0.000	\$322,952	\$0.000	\$1,371,12	\$48,413	\$0.000	\$0.000	\$1,361,853	\$185,524	\$1,176,329	\$1,176,329	
2021	\$0.000	\$1,181,287	\$0.000	\$697,741	\$0.000	\$295,476	\$114,684	\$0.000	\$0.000	\$1,879,029	\$410,160	\$1,468,869	\$2,373,660	
2022	\$0.000	\$1,324,668	\$0.000	\$111,897	\$0.000	\$471,680	\$188,562	\$0.000	\$0.000	\$2,436,565	\$660,242	\$1,776,324	\$3,813,384	
2023	\$0.000	\$1,469,154	\$0.000	\$1,563,877	\$0.000	\$667,356	\$283,247	\$0.000	\$0.000	\$3,033,030	\$950,604	\$2,082,427	\$5,387,050	
2024	\$0.000	\$1,610,272	\$0.000	\$2,027,432	\$2,597,570	\$876,833	\$151,522	\$0.000	\$0.000	\$3,637,705	\$3,625,926	\$11,779	\$395,349	
2025	\$0.000	\$1,574,446	\$0.000	\$1,921,441	\$2,501,958	\$850,485	\$137,437	\$0.000	\$0.000	\$3,495,887	\$3,489,880	\$6,007	\$399,295	
2026	\$0.000	\$1,539,032	\$0.000	\$838,517	\$2,410,092	\$824,928	\$142,867	\$0.000	\$0.000	\$3,377,549	\$3,377,887	\$0,338	\$39,088	
2027	\$0.000	\$1,504,028	\$0.000	\$758,603	\$2,321,815	\$800,138	\$147,018	\$0.000	\$0.000	\$3,262,631	\$268,972	\$6,341	\$395,467	
2028	\$0.000	\$1,290,248	\$0.000	\$1,682,054	\$2,236,980	\$776,094	\$149,089	\$0.000	\$0.000	\$2,942,302	\$3,162,162	\$219,860	\$278,405	
2029	\$0.000	\$1,226,059	\$0.000	\$2,155,442	\$2,152,773	\$752,442	\$152,735	\$0.000	\$0.000	\$2,839,961	\$2,839,950	\$0,860	\$168,639	
2030	\$0.000	\$826,189	\$0.000	\$1,550,321	\$2,077,065	\$730,152	\$156,630	\$0.000	\$0.000	\$2,376,509	\$2,963,847	\$587,338	\$486,848	
2031	\$0.000	\$785,491	\$0.000	\$1,484,383	\$2,001,720	\$708,211	\$158,477	\$0.000	\$0.000	\$2,289,874	\$2,868,408	\$598,534	\$463,553	
2032	\$0.000	\$745,052	\$0.000	\$1,423,768	\$1,929,282	\$686,329	\$164,982	\$0.000	\$0.000	\$2,168,821	\$2,781,193	\$612,372	\$392,159	
2033	\$0.000	\$704,871	\$0.000	\$1,362,628	\$1,929,630	\$666,287	\$167,047	\$0.000	\$0.000	\$2,067,499	\$2,692,964	\$625,466	\$415,518	
2034	\$0.000	\$664,944	\$0.000	\$1,305,081	\$1,792,651	\$646,265	\$167,989	\$0.000	\$0.000	\$1,970,025	\$2,606,906	\$636,880	\$394,755	
2035	\$0.000	\$625,270	\$0.000	\$1,250,629	\$1,728,236	\$626,845	\$171,652	\$0.000	\$0.000	\$1,875,899	\$2,526,733	\$722,508	\$372,508	
2036	\$0.000	\$585,869	\$0.000	\$1,192,014	\$1,666,281	\$608,008	\$172,856	\$0.000	\$0.000	\$1,777,882	\$2,447,145	\$669,262	\$351,913	
2037	\$0.000	\$556,750	\$0.000	\$1,145,466	\$1,606,684	\$589,737	\$171,197	\$0.000	\$0.000	\$1,702,216	\$2,367,619	\$665,403	\$330,375	
2038	\$0.000	\$563,804	\$0.000	\$1,098,760	\$1,549,362	\$572,016	\$173,298	\$0.000	\$0.000	\$1,662,565	\$2,294,665	\$632,101	\$316,329	
2039	\$0.000	\$571,108	\$0.000	\$1,077,126	\$1,494,191	\$554,827	\$173,280	\$0.000	\$0.000	\$1,648,234	\$2,222,298	\$574,064	\$302,826	
2040	\$0.000	\$578,659	\$0.000	\$1,036,022	\$1,441,115	\$538,154	\$174,479	\$0.000	\$0.000	\$1,614,681	\$2,153,748	\$539,067	\$289,962	
2041	\$0.000	\$586,456	\$0.000	\$995,637	\$1,390,040	\$521,983	\$174,899	\$0.000	\$0.000	\$1,582,095	\$2,086,921	\$504,826	\$278,981	
2042	\$0.000	\$584,505	\$0.000	\$947,408	\$1,340,885	\$506,297	\$173,445	\$0.000	\$0.000	\$1,541,913	\$2,020,627	\$478,714	\$269,492	
2043	\$0.000	\$602,801	\$0.000	\$913,417	\$1,293,573	\$491,083	\$173,855	\$0.000	\$0.000	\$1,516,218	\$1,958,511	\$442,293	\$261,823	
2044	\$0.000	\$611,346	\$0.000	\$879,467	\$1,248,031	\$476,326	\$174,721	\$0.000	\$0.000	\$1,490,813	\$1,889,077	\$408,264	\$250,933	
2045	\$0.000	\$620,141	\$0.000	\$846,177	\$1,204,188	\$462,112	\$172,486	\$0.000	\$0.000	\$1,466,318	\$1,838,686	\$372,369	\$248,649	
2046	\$0.000	\$629,187	\$0.000	\$812,428	\$1,161,977	\$448,129	\$172,793	\$0.000	\$0.000	\$1,441,615	\$1,782,900	\$341,284	\$249,134	
2047	\$0.000	\$638,485	\$0.000	\$779,937	\$1,121,334	\$434,662	\$172,558	\$0.000	\$0.000	\$1,418,422	\$1,728,554	\$310,132	\$238,488	
2048	\$0.000	\$648,037	\$0.000	\$748,762	\$1,082,195	\$421,601	\$169,564	\$0.000	\$0.000	\$1,396,799	\$1,673,360	\$276,561	\$234,919	

Nominal NPV	\$25,867,063	\$35,387,845	\$43,212,288	\$17,142,397	\$4,751,782	\$1,855,154	\$0,000	\$0,000	\$61,254,908	\$65,106,467	\$3,851,559	\$25,883,238	\$2,349,199
Discount Rate =	7.25%	0.92											

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	-0.33	kW/Cus	2019
(2) Change in Peak kW per Customer at generator	0.41	kW Gen/Cus	2024**
(3) kW Line Loss Percentage	5.35%		2020
(4) Change in KWh per Customer at generator	(1.276)	kWh/Cus/Yr	
(5) kWh Line Loss Percentage	5.38%		\$806.95 \$/kW
(6) Group Line Loss Multiplier	1.0012		\$205.00 \$/kW
(7) Annual Change in Customer kWh at Meter	(1.211)	kWh/Cus/Yr	\$73.77 \$/kW

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years	(1) Non-Fuel Cost In Customer Bill (Base Year)
(2) Economic Life of Incremental Generation	40	Years	(2) Non-Fuel Escalation Rate
(3) Economic Life of Incremental T&D	42	Years	(3) Customer Demand Charge Per kW (Base Year)
(4) K-Factor for Generation	1.3072		(4) Demand Charge Escalation Rate
(5) K-Factor for T&D	1.3060		* (5) Average Annual Change in Monthly Billing kW 0 kW/Mo.
* (6) Switch: Rev Req (0) or Val-of-Def (1)	1		

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	\$165.21	\$/Cus	Stop Revenue Loss at In-Service Year? (Y=1, N=0) 0
(2) Utility Recurring Cost Per Customer	\$0.00	\$/Cus/Year	
(3) Utility Cost Escalation Rate	0.00%		
(4) Customer Equipment Cost	\$1,709.17	\$/Cus	
(5) Customer Equipment Cost Escalation Rate	0.00%		\$0.0767 \$/kW/h
(6) Customer O&M Cost	\$0.00	\$/Cus/Year	Per Table
(7) Customer O&M Cost Escalation Rate	2.10%		\$0.0000 \$/kW/Mo
* (8) Customer Tax Credit Per Installation	\$0.00	\$/Cus	Per Table
* (9) Customer Tax Credit Escalation Rate	2.10%		0 kW/Mo.
* (10) Change in Supply Costs	\$0.00	\$/Cus/Year	
* (11) Supply Costs Escalation Rate	2.10%		
* (12) Utility Discount Rate	7.25%		
* (13) Utility AFUDC Rate	5.73%		
* (14) Utility Nonrecurring Rebate/Incentive	\$25.00	\$/Cus	
* (15) Utility Recurring Rebate/Incentive	\$0.00	\$/Cus/Year	\$8.374 \$/kW
* (16) Utility Rebate/Incentive Escalation Rate	0.00%		\$11.290 \$/kW
			NPV Benefits (\$000s) (\$2,916) 0.742
			NPV Costs (\$000s) (\$3,456) Benefit:Cost Ratio 1.336 0.568
			NPV Net Benefits (\$000s) 1.742

* Supplemental information.

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

Total Resource Cost-Effectiveness Measure

Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code												
1	2	3	4	5	6	7	8	9	10	11	12	13
Year	Change in Electric Supply Costs (\$'000s)	Utility's Program Costs (\$'000s)	Participants' Program Costs (\$'000s)	Other Costs (\$'000s)	Other Benefits (\$'000s)	Incremental Generation Cap Costs (\$'000s)	Incremental T&D Cap Costs (\$'000s)	Prog Induced Fuel Costs (\$'000s)	Total Costs (\$'000s)	Total Benefits (\$'000s)	Total Net Benefits (\$'000s)	Cumulative Discounted Net Benefits (\$'000s)
2019	\$0	\$198	\$2,051	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$0	\$223	\$2,307	\$0	\$0	\$0	\$0	\$47	\$2,249	\$67	\$2,182	(\$2,035)
2021	\$0	\$248	\$2,564	\$0	\$0	\$0	\$0	\$112	\$2,530	\$155	\$2,375	(\$4,100)
2022	\$0	\$273	\$2,820	\$0	\$0	\$0	\$0	\$112	\$2,812	\$257	\$2,554	(\$6,110)
2023	\$0	\$297	\$3,077	\$0	\$0	\$0	\$0	\$100	\$3,093	\$386	\$2,707	(\$8,215)
2024	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$134	\$3,374	\$688	\$2,636	(\$10,108)
2025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$137	\$3,149	\$0	\$690	(\$9,655)
2026	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$140	\$3,164	\$0	\$712	(\$9,218)
2027	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$143	\$3,177	\$0	\$735	(\$8,799)
2028	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$146	\$3,189	\$0	\$755	(\$8,397)
2029	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$149	\$3,204	\$0	\$779	(\$8,010)
2030	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$152	\$3,220	\$0	\$805	(\$7,637)
2031	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$155	\$3,234	\$0	\$828	(\$7,280)
2032	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$159	\$3,257	\$0	\$861	(\$6,834)
2033	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$162	\$3,274	\$0	\$887	(\$6,601)
2034	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$165	\$3,290	\$0	\$913	(\$6,581)
2035	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$169	\$3,312	\$0	\$946	(\$5,973)
2036	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$172	\$3,330	\$0	\$975	(\$5,677)
2037	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$176	\$3,344	\$0	\$999	(\$5,393)
2038	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$180	\$3,367	\$0	\$1,033	(\$5,120)
2039	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$183	\$3,386	\$0	\$1,063	(\$4,888)
2040	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$187	\$4,009	\$0	\$1,098	(\$4,506)
2041	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$191	\$4,432	\$0	\$1,132	(\$4,364)
2042	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$195	\$4,451	\$0	\$1,163	(\$4,131)
2043	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$199	\$4,476	\$0	\$1,200	(\$3,908)
2044	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$203	\$5,003	\$0	\$1,240	(\$3,893)
2045	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$208	\$5,523	\$0	\$1,272	(\$3,487)
2046	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$212	\$5,522	\$0	\$1,313	(\$3,288)
2047	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$216	\$5,600	\$0	\$1,355	(\$3,098)
2048	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$221	\$600	\$0	\$1,388	(\$2,916)

Nominal NPV	\$1,239	\$12,819	\$0,000	\$0,000	\$11,895	\$4,587	\$9,213	\$14,058	\$25,695	\$11,637
Discount Rate =	7.25%	\$95,097	\$10,294,816	\$0,000	\$3,888,615	\$1,580,974	\$2,904,747	\$11,299,913	\$8,374,336	\$2,915,577
Benefit/Cost Ratio =	0.74									

Run Date:

Heat Pump

Filename:

Participants' 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 Equipment 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)
2019	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$2,051	\$0	\$0	\$0	(\$154)	\$0	\$500	\$2,051	\$454	(\$1,597)	(\$1,189)
2021	\$2,307	\$0	\$0	\$0	(\$343)	\$0	\$338	\$2,307	\$681	(\$1,626)	(\$2,903)
2022	\$2,564	\$0	\$0	\$0	(\$566)	\$0	\$375	\$2,564	\$941	(\$1,622)	(\$4,218)
2023	\$2,820	\$0	\$0	\$0	(\$820)	\$0	\$413	\$2,820	\$1,233	(\$1,587)	(\$5,417)
2024	\$3,077	\$0	\$0	\$0	(\$1,095)	\$0	\$450	\$3,077	\$1,545	(\$1,532)	(\$6,496)
2025	\$0	\$0	\$0	\$0	(\$1,090)	\$0	\$0	\$0	\$1,090	\$1,090	(\$5,780)
2026	\$0	\$0	\$0	\$0	(\$1,105)	\$0	\$0	\$0	\$1,105	\$1,105	(\$5,103)
2027	\$0	\$0	\$0	\$0	(\$1,119)	\$0	\$0	\$0	\$1,119	\$1,119	(\$4,464)
2028	\$0	\$0	\$0	\$0	(\$1,134)	\$0	\$0	\$0	\$1,134	\$1,134	(\$3,860)
2029	\$0	\$0	\$0	\$0	(\$1,155)	\$0	\$0	\$0	\$1,155	\$1,155	(\$3,287)
2030	\$0	\$0	\$0	\$0	(\$1,179)	\$0	\$0	\$0	\$1,179	\$1,179	(\$2,741)
2031	\$0	\$0	\$0	\$0	(\$1,196)	\$0	\$0	\$0	\$1,196	\$1,196	(\$2,225)
2032	\$0	\$0	\$0	\$0	(\$1,218)	\$0	\$0	\$0	\$1,218	\$1,218	(\$1,735)
2033	\$0	\$0	\$0	\$0	(\$1,234)	\$0	\$0	\$0	\$1,234	\$1,234	(\$1,272)
2034	\$0	\$0	\$0	\$0	(\$1,252)	\$0	\$0	\$0	\$1,252	\$1,252	(\$534)
2035	\$0	\$0	\$0	\$0	(\$1,272)	\$0	\$0	\$0	\$1,272	\$1,272	(\$419)
2036	\$0	\$0	\$0	\$0	(\$1,279)	\$0	\$0	\$0	\$1,279	\$1,279	(\$530)
2037	\$0	\$0	\$0	\$0	(\$1,306)	\$0	\$0	\$0	\$1,306	\$1,306	(\$340)
2038	\$0	\$0	\$0	\$0	(\$1,328)	\$0	\$0	\$0	\$1,328	\$1,328	(\$591)
2039	\$0	\$0	\$0	\$0	(\$1,402)	\$0	\$0	\$0	\$1,402	\$1,402	\$1,037
2040	\$0	\$0	\$0	\$0	(\$1,432)	\$0	\$0	\$0	\$1,432	\$1,432	\$1,366
2041	\$0	\$0	\$0	\$0	(\$1,460)	\$0	\$0	\$0	\$1,460	\$1,460	\$1,679
2042	\$0	\$0	\$0	\$0	(\$1,464)	\$0	\$0	\$0	\$1,464	\$1,464	\$1,971
2043	\$0	\$0	\$0	\$0	(\$1,501)	\$0	\$0	\$0	\$1,501	\$1,501	\$2,251
2044	\$0	\$0	\$0	\$0	(\$1,535)	\$0	\$0	\$0	\$1,535	\$1,535	\$2,517
2045	\$0	\$0	\$0	\$0	(\$1,567)	\$0	\$0	\$0	\$1,567	\$1,567	\$2,771
2046	\$0	\$0	\$0	\$0	(\$1,595)	\$0	\$0	\$0	\$1,595	\$1,595	\$3,012
2047	\$0	\$0	\$0	\$0	(\$1,622)	\$0	\$0	\$0	\$1,622	\$1,622	\$3,240
2048	\$0	\$0	\$0	\$0	(\$1,650)	\$0	\$0	\$0	\$1,650	\$1,650	\$3,456

Nominal NPV	\$12,819	\$0	\$0	\$0	\$1,875	\$10,506	\$12,819	\$36,951	\$24,132
Discount Rate =	7.25%	\$0	\$0	\$0	\$35,076	\$12,245	\$0	\$13,751,218	\$3,456

Run Date:

File name: Heat Pump

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 Cap Costs (\$000s)	Incremental Fuel Costs (\$000s)	Prog Induced Fuel Costs (\$000s)	Other Costs (\$000s)	Other Benefits (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits to All Customers (\$000s)
2019	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000
2020	\$0,000	\$198,250	\$300,000	(\$154,227)	\$0,000	\$19,763)	(\$47,082)	\$0,000	\$0,000	\$652,477	\$66,845	(\$585,631)	\$0,000
2021	\$0,000	\$223,031	\$337,500	(\$543,491)	\$0,000	(\$42,877)	(\$112,290)	\$0,000	\$0,000	\$904,022	\$155,167	(\$748,855)	(\$1,197,004)
2022	\$0,000	\$247,813	\$375,000	(\$66,406)	\$0,000	(\$69,529)	(\$187,546)	\$0,000	\$0,000	\$257,076	\$189,219	(\$932,143)	(\$1,952,513)
2023	\$0,000	\$272,594	\$412,500	(\$820,464)	\$0,000	(\$99,911)	(\$286,124)	\$0,000	\$0,000	\$1,505,568	\$386,035	(\$1,119,522)	(\$2,798,524)
2024	\$0,000	\$297,375	\$450,000	(\$1,094,979)	(\$397,628)	(\$134,223)	(\$156,501)	\$0,000	\$0,000	\$1,842,354	\$688,352	(\$1,154,002)	(\$3,611,607)
2025	\$0,000	\$0,000	\$0,000	\$1,089,957)	(\$403,149)	(\$137,042)	(\$149,424)	\$0,000	\$0,000	\$1,089,957	\$689,615	(\$400,342)	\$3,874,601
2026	\$0,000	\$0,000	\$0,000	\$1,105,005)	(\$408,786)	(\$139,191)	(\$163,504)	\$0,000	\$0,000	\$1,105,005	\$712,209	(\$392,796)	(\$4,115,185)
2027	\$0,000	\$0,000	\$0,000	\$1,119,475)	(\$414,540)	(\$142,858)	(\$177,109)	\$0,000	\$0,000	\$1,119,475	\$734,507	(\$384,968)	(\$4,335,027)
2028	\$0,000	\$0,000	\$0,000	\$1,133,907)	(\$420,414)	(\$145,856)	(\$189,056)	\$0,000	\$0,000	\$1,133,907	\$755,328	(\$378,579)	(\$4,536,598)
2029	\$0,000	\$0,000	\$0,000	\$1,155,198)	(\$426,410)	(\$148,921)	(\$203,874)	\$0,000	\$0,000	\$1,155,198	\$779,192	(\$374,587)	(\$4,723,251)
2030	\$0,000	\$0,000	\$0,000	\$1,179,244)	(\$432,532)	(\$152,048)	(\$220,077)	\$0,000	\$0,000	\$1,179,244	\$804,657	(\$489,630)	(\$4,896,630)
2031	\$0,000	\$0,000	\$0,000	\$1,196,369)	(\$438,781)	(\$155,241)	(\$234,391)	\$0,000	\$0,000	\$1,196,369	\$828,413	(\$367,955)	(\$5,055,420)
2032	\$0,000	\$0,000	\$0,000	\$1,217,550)	(\$445,160)	(\$158,501)	(\$256,856)	\$0,000	\$0,000	\$1,217,550	\$860,517	(\$357,032)	(\$5,199,076)
2033	\$0,000	\$0,000	\$0,000	\$1,234,016)	(\$451,672)	(\$161,830)	(\$273,759)	\$0,000	\$0,000	\$1,234,016	\$887,261	(\$346,756)	(\$5,329,160)
2034	\$0,000	\$0,000	\$0,000	\$1,252,276)	(\$458,320)	(\$165,228)	(\$289,793)	\$0,000	\$0,000	\$1,252,276	\$913,341	(\$338,935)	(\$5,447,710)
2035	\$0,000	\$0,000	\$0,000	\$1,271,890)	(\$465,107)	(\$168,998)	(\$311,695)	\$0,000	\$0,000	\$1,271,890	\$945,500	(\$326,390)	(\$5,554,151)
2036	\$0,000	\$0,000	\$0,000	\$1,279,376)	(\$472,035)	(\$172,241)	(\$330,402)	\$0,000	\$0,000	\$1,279,376	\$974,678	(\$304,988)	(\$5,646,797)
2037	\$0,000	\$0,000	\$0,000	\$1,305,638)	(\$479,108)	(\$175,858)	(\$344,454)	\$0,000	\$0,000	\$1,305,638	\$999,419	(\$306,219)	(\$5,733,608)
2038	\$0,000	\$0,000	\$0,000	\$1,328,020)	(\$486,328)	(\$179,551)	(\$367,032)	\$0,000	\$0,000	\$1,328,020	\$1,032,910	(\$295,109)	(\$5,811,611)
2039	\$0,000	\$0,000	\$0,000	\$1,402,268)	(\$501,222)	(\$187,171)	(\$386,310)	\$0,000	\$0,000	\$1,402,268	\$1,063,330	(\$338,938)	(\$5,895,139)
2040	\$0,000	\$0,000	\$0,000	\$1,432,194)	(\$508,903)	(\$191,102)	(\$409,455)	\$0,000	\$0,000	\$1,432,194	\$1,097,848	(\$334,346)	(\$5,971,963)
2041	\$0,000	\$0,000	\$0,000	\$1,460,393)	(\$516,745)	(\$195,115)	(\$432,043)	\$0,000	\$0,000	\$1,460,393	\$1,132,048	(\$328,345)	(\$6,042,306)
2042	\$0,000	\$0,000	\$0,000	\$1,464,431)	(\$524,749)	(\$199,212)	(\$451,002)	\$0,000	\$0,000	\$1,464,431	\$1,162,861	(\$301,570)	(\$6,102,542)
2043	\$0,000	\$0,000	\$0,000	\$1,501,052)	(\$532,921)	(\$203,396)	(\$475,862)	\$0,000	\$0,000	\$1,501,052	\$1,199,824	(\$301,228)	(\$6,158,641)
2044	\$0,000	\$0,000	\$0,000	\$1,534,822)	(\$541,263)	(\$207,667)	(\$503,400)	\$0,000	\$0,000	\$1,534,822	\$1,239,717	(\$295,105)	(\$6,209,882)
2045	\$0,000	\$0,000	\$0,000	\$1,567,222)	(\$549,779)	(\$212,028)	(\$523,118)	\$0,000	\$0,000	\$1,567,222	\$1,272,047	(\$295,175)	(\$6,257,669)
2046	\$0,000	\$0,000	\$0,000	\$1,594,551)	(\$558,472)	(\$216,480)	(\$551,632)	\$0,000	\$0,000	\$1,594,551	\$1,313,439	(\$281,112)	(\$6,330,101)
2047	\$0,000	\$0,000	\$0,000	\$1,621,872)	(\$567,347)	(\$221,026)	(\$579,874)	\$0,000	\$0,000	\$1,621,872	\$1,354,827	(\$267,045)	(\$6,337,683)
2048	\$0,000	\$0,000	\$0,000	\$1,649,542)	(\$587,000)	(\$221,026)	(\$599,805)	\$0,000	\$0,000	\$1,649,542	\$1,388,178	(\$261,364)	(\$6,371,978)

Nominal NPV	\$1,239,063	\$1,875,000	\$35,075,835)	(\$11,895,068)	(\$4,586,613)	(\$9,213,475)	\$0,000	\$0,000	\$38,189,888	\$25,695,156	(\$12,494,742)
Discount Rate =	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%
Benefit/Cost Ratio =	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57

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	-0.80	kW/Cus
(2) Change in Peak kW per Customer at generator	0.99	kW Gen/Cus
(3) kW Line Loss Percentage	5.35%	kWh/Cus/Yr
(4) Change in KWh per Customer at generator	(2,198)	kWh/Cus/Yr
(5) kWh Line Loss Percentage	5.38%	
(6) Group Line Loss Multiplier	1.0012	
(7) Annual Change in Customer kWh at Meter	(2.086)	kWh/Cus/Yr

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years
(2) Economic Life of Incremental Generation	40	Years
(3) Economic Life of Incremental T&D	42	Years
(4) K-Factor for Generation	1.3072	
(5) K-Factor for T&D	1.3060	
* (6) Switch: Rev Req (0) or Val-of-Def (1)	1	

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	\$339.06	\$/Cus
(2) Utility Recurring Cost Per Customer	\$0.00	\$/Cus/Year
(3) Utility Cost Escalation Rate	0.00%	
(4) Customer Equipment Cost	\$759.74	\$/Cus
(5) Customer Equipment Cost Escalation Rate	0.00%	
(6) Customer O&M Cost	\$0.00	\$/Cus/Year
(7) Customer O&M Cost Escalation Rate	2.10%	
* (8) Customer Tax Credit Per Installation	\$0.00	\$/Cus
* (9) Customer Tax Credit Escalation Rate	2.10%	
* (10) Change in Supply Costs	\$0.00	\$/Cus/Year
* (11) Supply Costs Escalation Rate	2.10%	
* (12) Utility Discount Rate	7.25%	
* (13) Utility AFUDC Rate	5.73%	
* (14) Utility Nonrecurring Rebate/Incentive	\$30.00	\$/Cus
* (15) Utility Recurring Rebate/Incentive	\$0.00	\$/Cus/Year
* (16) Utility Rebate/Incentive Escalation Rate	0.00%	

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2019
(2) In-Service Year For Incremental Generation	2024**
(3) In-Service Year For Incremental T & D	2020
(4) Base Year Incremental Generation Cost	\$806.95 \$/kW
(5) Base Year Incremental Transmission Cost	\$205.00 \$/kW
(6) Base Year Incremental Distribution Cost	\$173.77 \$/kW
(7) Gen, Tran, & Dist Cost Escalation Rate	2.10%
(8) Generator Fixed O & M Cost	\$59.33 \$/kW/Yr
(9) Generator Fixed O&M Escalation Rate	0.24%
(10) Transmission Fixed O & M Cost	\$3.87 \$/kW/Yr
(11) Distribution Fixed O & M Cost	\$6.68 \$/kW/Yr
(12) &D Fixed O&M Escalation Rate	2.10%
(13) Incremental Gen Variable O & M Costs	\$0.00 \$/kW/Yr
(14) Inre Gen Variable O&M Cost Esc Rate	0.00%
(15) Incremental Gen Capacity Factor	81.49%
(16) Incremental Generating Unit Fuel Cost	\$0.0314 \$/kW/h
(17) Incremental Gen Unit Fuel Esc Rate	2.42%
(18) Incremental Purchased Capacity Cost	\$12.54 \$/kW/YR
(19) Incremental Capacity Cost Esc Rate	7.57%

Stop Revenue Loss at In-Service Year? (Y=1, N=0)

0

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

(1) Non-Fuel Cost In Customer Bill (Base Year)	\$0.0767 \$/kW/h
(2) Non-Fuel Escalation Rate	Per Table
(3) Customer Demand Charge Per kW (Base Year)	\$0.0000 \$/kW/Mo
(4) Demand Charge Escalation Rate	Per Table
* (5) Average Annual Change in Monthly Billing kW	0 kW/Mo.

Summary Results for This Analysis

Participants	TRC
NPV Benefits (\$000s)	\$12,533
NPV Costs (\$000s)	\$4,552
NPV Net Benefits (\$000s)	\$7,981
Benefit:Cost Ratio	2.753

* Supplemental information.

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

Run Date:

Filename:

Ceiling Insulation

Total Resource Cost-Effectiveness Measure

Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code												
1	2	3	4	5	6	7	8	9	10	11	12	13
Year	Change in Electric Supply Costs (\$'000s)	Utility's Program Costs (\$'000s)	Participants' Program Costs (\$'000s)	Other Costs (\$'000s)	Other Benefits (\$'000s)	Incremental Generation Cap Costs (\$'000s)	Incremental T&D Cap Costs (\$'000s)	Prog Induced Fuel Costs (\$'000s)	Total Costs (\$'000s)	Total Benefits (\$'000s)	Total Net Benefits (\$'000s)	Cumulative Discounted Net Benefits (\$'000s)
2019	\$0	\$271	\$608	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$0	\$305	\$684	\$0	\$0	\$0	\$0	(\$59)	(\$54)	\$879	\$86	(\$740)
2021	\$0	\$339	\$760	\$0	\$0	\$0	\$0	(\$112)	(\$120)	\$989	\$198	(\$791)
2022	\$0	\$398	\$893	\$0	\$0	\$0	\$0	(\$164)	(\$215)	\$1,099	\$227	(\$827)
2023	\$0	\$441	\$988	\$0	\$0	(\$662)	(\$223)	(\$186)	(\$235)	\$1,291	\$499	(\$2,053)
2024	\$0	\$2025	\$0	\$0	\$0	(\$671)	(\$228)	(\$178)	(\$228)	\$0	\$1,071	(\$792)
2025	\$0	\$2026	\$0	\$0	\$0	(\$680)	(\$233)	(\$194)	(\$233)	\$0	\$1,077	(\$357)
2026	\$0	\$2027	\$0	\$0	\$0	(\$690)	(\$238)	(\$210)	(\$210)	\$0	\$1,108	(\$2,196)
2027	\$0	\$2028	\$0	\$0	\$0	(\$700)	(\$243)	(\$225)	(\$225)	\$0	\$1,138	(\$1,517)
2028	\$0	\$2029	\$0	\$0	\$0	(\$710)	(\$248)	(\$242)	(\$242)	\$0	\$1,167	(\$867)
2029	\$0	\$2030	\$0	\$0	\$0	(\$720)	(\$253)	(\$242)	(\$242)	\$0	\$1,200	(\$245)
2030	\$0	\$2031	\$0	\$0	\$0	(\$730)	(\$258)	(\$242)	(\$242)	\$0	\$1,235	(\$320)
2031	\$0	\$2032	\$0	\$0	\$0	(\$741)	(\$264)	(\$246)	(\$246)	\$0	\$1,267	(\$322)
2032	\$0	\$2033	\$0	\$0	\$0	(\$752)	(\$269)	(\$248)	(\$248)	\$0	\$1,300	(\$322)
2033	\$0	\$2034	\$0	\$0	\$0	(\$763)	(\$275)	(\$250)	(\$250)	\$0	\$1,347	(\$322)
2034	\$0	\$2035	\$0	\$0	\$0	(\$774)	(\$281)	(\$267)	(\$267)	\$0	\$1,382	(\$322)
2035	\$0	\$2036	\$0	\$0	\$0	(\$786)	(\$287)	(\$273)	(\$273)	\$0	\$1,425	(\$322)
2036	\$0	\$2037	\$0	\$0	\$0	(\$798)	(\$293)	(\$280)	(\$280)	\$0	\$1,465	(\$322)
2037	\$0	\$2038	\$0	\$0	\$0	(\$810)	(\$299)	(\$286)	(\$286)	\$0	\$1,500	(\$322)
2038	\$0	\$2039	\$0	\$0	\$0	(\$822)	(\$305)	(\$293)	(\$293)	\$0	\$1,545	(\$322)
2039	\$0	\$2040	\$0	\$0	\$0	(\$834)	(\$312)	(\$287)	(\$287)	\$0	\$1,586	(\$322)
2040	\$0	\$2041	\$0	\$0	\$0	(\$847)	(\$318)	(\$281)	(\$281)	\$0	\$1,633	(\$322)
2041	\$0	\$2042	\$0	\$0	\$0	(\$860)	(\$325)	(\$287)	(\$287)	\$0	\$1,679	(\$322)
2042	\$0	\$2043	\$0	\$0	\$0	(\$874)	(\$332)	(\$293)	(\$293)	\$0	\$1,721	(\$322)
2043	\$0	\$2044	\$0	\$0	\$0	(\$887)	(\$339)	(\$299)	(\$299)	\$0	\$1,771	(\$322)
2044	\$0	\$2045	\$0	\$0	\$0	(\$901)	(\$346)	(\$305)	(\$305)	\$0	\$1,824	(\$322)
2045	\$0	\$2046	\$0	\$0	\$0	(\$915)	(\$353)	(\$312)	(\$312)	\$0	\$1,868	(\$322)
2046	\$0	\$2047	\$0	\$0	\$0	(\$930)	(\$360)	(\$320)	(\$320)	\$0	\$1,924	(\$322)
2047	\$0	\$2048	\$0	\$0	\$0	(\$944)	(\$368)	(\$328)	(\$328)	\$0	\$1,979	(\$322)
2048	\$0										\$2,025	

Nominal Npv	\$1,755	\$3,932	\$0,000	\$0,000	\$19,801	(\$10,930)	\$7,625	(\$2,623,570)	\$10,930)	\$5,686	\$38,356	\$32,670
Discount Rate =	7.25%											
Benefit/Cost Ratio =	2.75											

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)
2019	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$608	\$0	\$0	\$0	(\$177)	\$0	\$240	\$608	\$417	(\$178)	\$0
2021	\$684	\$0	\$0	\$0	(\$594)	\$0	\$270	\$684	\$664	(\$19)	(\$195)
2022	\$760	\$0	\$0	\$0	(\$650)	\$0	\$300	\$760	\$950	\$191	(\$640)
2023	\$893	\$0	\$0	\$0	(\$861)	\$0	\$353	\$853	\$1,313	\$420	\$278
2024	\$988	\$0	\$0	\$0	(\$1,301)	\$0	\$390	\$988	\$1,691	\$704	\$773
2025	\$0	\$0	\$0	\$0	(\$1,295)	\$0	\$0	\$0	\$1,295	\$1,295	\$1,524
2026	\$0	\$0	\$0	\$0	(\$1,313)	\$0	\$0	\$0	\$1,313	\$1,313	\$2,429
2027	\$0	\$0	\$0	\$0	(\$1,330)	\$0	\$0	\$0	\$1,330	\$1,330	\$3,188
2028	\$0	\$0	\$0	\$0	(\$1,348)	\$0	\$0	\$0	\$1,348	\$3,906	\$4,387
2029	\$0	\$0	\$0	\$0	(\$1,373)	\$0	\$0	\$0	\$1,373	\$1,373	\$4,587
2030	\$0	\$0	\$0	\$0	(\$1,401)	\$0	\$0	\$0	\$1,401	\$1,401	\$5,236
2031	\$0	\$0	\$0	\$0	(\$1,422)	\$0	\$0	\$0	\$1,422	\$1,422	\$5,850
2032	\$0	\$0	\$0	\$0	(\$1,447)	\$0	\$0	\$0	\$1,447	\$1,447	\$6,432
2033	\$0	\$0	\$0	\$0	(\$1,467)	\$0	\$0	\$0	\$1,467	\$1,467	\$6,982
2034	\$0	\$0	\$0	\$0	(\$1,488)	\$0	\$0	\$0	\$1,488	\$1,488	\$7,502
2035	\$0	\$0	\$0	\$0	(\$1,512)	\$0	\$0	\$0	\$1,512	\$1,512	\$7,995
2036	\$0	\$0	\$0	\$0	(\$1,520)	\$0	\$0	\$0	\$1,520	\$1,520	\$8,458
2037	\$0	\$0	\$0	\$0	(\$1,552)	\$0	\$0	\$0	\$1,552	\$1,552	\$8,988
2038	\$0	\$0	\$0	\$0	(\$1,578)	\$0	\$0	\$0	\$1,578	\$1,578	\$9,315
2039	\$0	\$0	\$0	\$0	(\$1,666)	\$0	\$0	\$0	\$1,666	\$1,666	\$9,725
2040	\$0	\$0	\$0	\$0	(\$1,702)	\$0	\$0	\$0	\$1,702	\$1,702	\$10,117
2041	\$0	\$0	\$0	\$0	(\$1,736)	\$0	\$0	\$0	\$1,736	\$1,736	\$10,488
2042	\$0	\$0	\$0	\$0	(\$1,740)	\$0	\$0	\$0	\$1,740	\$1,740	\$10,836
2043	\$0	\$0	\$0	\$0	(\$1,784)	\$0	\$0	\$0	\$1,784	\$1,784	\$11,168
2044	\$0	\$0	\$0	\$0	(\$1,824)	\$0	\$0	\$0	\$1,824	\$1,824	\$11,485
2045	\$0	\$0	\$0	\$0	(\$1,863)	\$0	\$0	\$0	\$1,863	\$1,863	\$11,786
2046	\$0	\$0	\$0	\$0	(\$1,895)	\$0	\$0	\$0	\$1,895	\$1,895	\$12,072
2047	\$0	\$0	\$0	\$0	(\$1,927)	\$0	\$0	\$0	\$1,927	\$1,927	\$12,344
2048	\$0	\$0	\$0	\$0	(\$1,960)	\$0	\$0	\$0	\$1,960	\$1,960	\$12,801
Nominal NPV	\$3,932	\$0	\$0	\$0	\$41,627	\$0	\$1,553	\$3,932	\$43,180	\$39,248	
Discount Rate =	\$3,147	\$0	\$0	\$0	(\$14,505)	\$0	\$1,243	\$3,147,342	\$15,748,285	\$12,601	
Benefit/Cost Ratio =	7.25%	5.00									

Run Date:

11-Feb-20

10:32 AM

File name:

Ceiling Insulation

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 Cap Costs (\$000s)	Incremental Fuel Costs (\$000s)	Prog Induced Fuel Costs (\$000s)	Other Costs (\$000s)	Other Benefits (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits to All Customers (\$000s)
2019	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	
2020	\$0,000	\$271,250	\$240,000	(\$177,087)	\$0,000	\$31,785	(\$54,061)	\$0,000	\$0,000	\$688,337	\$85,846	(\$602,491)	
2021	\$0,000	\$305,156	\$270,000	(\$394,405)	\$0,000	(\$68,961)	(\$128,934)	\$0,000	\$0,000	\$969,561	\$19,785	(\$71,766)	
2022	\$0,000	\$339,063	\$300,000	(\$550,362)	\$0,000	(\$111,827)	(\$215,345)	\$0,000	\$0,000	\$1,289,424	\$327,172	(\$962,252)	
2023	\$0,000	\$398,398	\$352,500	(\$960,670)	\$0,000	(\$163,862)	(\$335,019)	\$0,000	\$0,000	\$1,711,569	\$498,881	(\$1,212,688)	
2024	\$0,000	\$440,781	\$390,000	(\$1,301,287)	(\$661,902)	(\$223,431)	(\$185,988)	\$0,000	\$0,000	\$2,132,068	\$1,071,321	(\$1,060,748)	
2025	\$0,000	\$0,000	\$0,000	(\$295,318)	(\$671,093)	(\$228,123)	(\$177,578)	\$0,000	\$0,000	\$1,295,318	\$1,076,794	(\$218,525)	
2026	\$0,000	\$0,000	\$0,000	(\$1,313,201)	(\$680,476)	(\$32,914)	(\$194,310)	\$0,000	\$0,000	\$1,313,201	\$1,107,699	(\$205,502)	
2027	\$0,000	\$0,000	\$0,000	(\$1,330,398)	(\$690,054)	(\$237,805)	(\$210,479)	\$0,000	\$0,000	\$1,330,398	\$1,138,338	(\$192,060)	
2028	\$0,000	\$0,000	\$0,000	(\$1,347,549)	(\$699,832)	(\$242,799)	(\$224,677)	\$0,000	\$0,000	\$1,347,549	\$1,167,308	(\$180,242)	
2029	\$0,000	\$0,000	\$0,000	(\$1,372,851)	(\$709,814)	(\$247,897)	(\$242,287)	\$0,000	\$0,000	\$1,372,851	\$1,199,998	(\$172,853)	
2030	\$0,000	\$0,000	\$0,000	(\$1,401,429)	(\$720,004)	(\$253,103)	(\$261,542)	\$0,000	\$0,000	\$1,401,429	\$1,234,650	(\$166,779)	
2031	\$0,000	\$0,000	\$0,000	(\$1,421,780)	(\$730,406)	(\$258,418)	(\$278,554)	\$0,000	\$0,000	\$1,421,780	\$1,267,378	(\$145,401)	
2032	\$0,000	\$0,000	\$0,000	(\$1,446,951)	(\$741,025)	(\$263,845)	(\$305,251)	\$0,000	\$0,000	\$1,446,951	\$1,310,122	(\$136,830)	
2033	\$0,000	\$0,000	\$0,000	(\$1,466,521)	(\$751,886)	(\$269,386)	(\$325,359)	\$0,000	\$0,000	\$1,466,521	\$1,346,591	(\$119,930)	
2034	\$0,000	\$0,000	\$0,000	(\$1,488,221)	(\$762,932)	(\$275,043)	(\$344,393)	\$0,000	\$0,000	\$1,488,221	\$1,382,369	(\$105,852)	
2035	\$0,000	\$0,000	\$0,000	(\$1,511,530)	(\$774,230)	(\$280,819)	(\$370,422)	\$0,000	\$0,000	\$1,511,530	\$1,425,471	(\$86,059)	
2036	\$0,000	\$0,000	\$0,000	(\$1,520,426)	(\$785,762)	(\$286,716)	(\$386,764)	\$0,000	\$0,000	\$1,520,426	\$1,465,133	(\$55,294)	
2037	\$0,000	\$0,000	\$0,000	(\$1,551,637)	(\$797,535)	(\$292,737)	(\$399,353)	\$0,000	\$0,000	\$1,551,637	\$1,499,626	(\$52,091)	
2038	\$0,000	\$0,000	\$0,000	(\$1,578,235)	(\$809,554)	(\$298,885)	(\$436,185)	\$0,000	\$0,000	\$1,578,235	\$1,544,624	(\$33,611)	
2039	\$0,000	\$0,000	\$0,000	(\$1,666,473)	(\$821,823)	(\$305,161)	(\$459,096)	\$0,000	\$0,000	\$1,666,473	\$1,666,473	(\$80,392)	
2040	\$0,000	\$0,000	\$0,000	(\$1,702,038)	(\$834,348)	(\$311,570)	(\$486,601)	\$0,000	\$0,000	\$1,702,038	\$1,632,519	(\$69,519)	
2041	\$0,000	\$0,000	\$0,000	(\$1,735,550)	(\$847,134)	(\$318,113)	(\$513,445)	\$0,000	\$0,000	\$1,735,550	\$1,678,692	(\$56,857)	
2042	\$0,000	\$0,000	\$0,000	(\$1,740,348)	(\$860,187)	(\$324,793)	(\$525,976)	\$0,000	\$0,000	\$1,740,348	\$1,720,956	(\$54,910)	
2043	\$0,000	\$0,000	\$0,000	(\$1,783,869)	(\$873,512)	(\$331,614)	(\$565,521)	\$0,000	\$0,000	\$1,783,869	\$1,770,646	(\$13,223)	
2044	\$0,000	\$0,000	\$0,000	(\$1,824,002)	(\$887,114)	(\$338,578)	(\$598,247)	\$0,000	\$0,000	\$1,824,002	\$1,823,939	(\$80,063)	
2045	\$0,000	\$0,000	\$0,000	(\$1,862,506)	(\$901,000)	(\$345,688)	(\$621,680)	\$0,000	\$0,000	\$1,862,506	\$1,868,368	\$5,861	
2046	\$0,000	\$0,000	\$0,000	(\$1,894,984)	(\$915,176)	(\$352,947)	(\$655,567)	\$0,000	\$0,000	\$1,894,984	\$1,929,690	\$28,706	
2047	\$0,000	\$0,000	\$0,000	(\$1,927,452)	(\$929,647)	(\$360,359)	(\$689,130)	\$0,000	\$0,000	\$1,927,452	\$1,979,136	\$51,684	
2048	\$0,000	\$0,000	\$0,000	(\$1,960,337)	(\$944,420)	(\$367,927)	(\$712,815)	\$0,000	\$0,000	\$1,960,337	\$2,025,162	\$64,826	

Nominal NPV	\$1,754,648	\$1,552,500	\$41,627,416	(\$19,800,846)	(\$7,625,105)	(\$10,930,452)	\$0,000	\$0,000	\$44,934,564	\$38,356,403	(\$5,578,161)
Discount Rate =	7.25%	7.03									

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	-0.57	kW/Cus	
(2) Change in Peak kW per Customer at generator	0.70	kW Gen/Cus	
(3) kW Line Loss Percentage	5.35%		
(4) Change in KWh per Customer at generator	(2,777)	kWh/Cus/Yr	
(5) kW Line Loss Percentage	5.38%		
(6) Group Line Loss Multiplier	1.0012		
(7) Annual Change in Customer kWh at Meter	(2,635)	kWh/Cus/Yr	

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years	
(2) Economic Life of Incremental Generation	40	Years	
(3) Economic Life of Incremental T&D	42	Years	
(4) K-Factor for Generation	1.3072		
(5) K-Factor for T&D	1.3060		
* (6) Switch: Rev Req (0) or Val-of-Def (1)	1		

(1) Utility Nonrecurring Cost Per Customer	\$172.39	\$/Cus	
(2) Utility Recurring Cost Per Customer	\$0.00	\$/Cus/Year	
(3) Utility Cost Escalation Rate	0.00%		
(4) Customer Equipment Cost	\$1,085.01	\$/Cus	
(5) Customer Equipment Cost Escalation Rate	0.00%		
(6) Customer O&M Cost	\$0.00	\$/Cus/Year	
(7) Customer O&M Cost Escalation Rate	2.10%		
* (8) Customer Tax Credit Per Installation	\$0.00	\$/Cus	
* (9) Customer Tax Credit Escalation Rate	2.10%		
* (10) Change in Supply Costs	\$0.00	\$/Cus/Year	
* (11) Supply Costs Escalation Rate	2.10%		
* (12) Utility Discount Rate	7.25%		
* (13) Utility AFUDC Rate	5.73%		
* (14) Utility Nonrecurring Rebate/Incentive	\$30.00	\$/Cus	
* (15) Utility Recurring Rebate/Incentive	\$0.00	\$/Cus/Year	
* (16) Utility Rebate/Incentive Escalation Rate	0.00%		

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2019	
(2) In-Service Year For Incremental Generation	2024**	
(3) In-Service Year For Incremental T & D	2020	
(4) Base Year Incremental Generation Cost	\$806.95	\$/kW
(5) Base Year Incremental Transmission Cost	\$205.00	\$/kW
(6) Base Year Incremental Distribution Cost	\$173.77	\$/kW
(7) Gen, Tran, & Dist Cost Escalation Rate	2.10%	
(8) Generator Fixed O & M Cost	\$59.33	\$/kW/Yr
(9) Generator Fixed O&M Escalation Rate	0.24%	
(10) Transmission Fixed O & M Cost	\$3.87	\$/kW/Yr
(11) Distribution Fixed O & M Cost	\$6.68	\$/kW/Yr
(12) &D Fixed O&M Escalation Rate	2.10%	
(13) Incremental Gen Variable O & M Costs	\$0.00	\$/kW/Yr
(14) Inre Gen Variable O&M Cost Esc Rate	0.00%	
(15) Incremental Gen Capacity Factor	81.49%	
(16) Incremental Generating Unit Fuel Cost	\$0.0314	\$/kW/h
(17) Incremental Gen Unit Fuel Esc Rate	2.42%	
(18) Incremental Purchased Capacity Cost	\$12.54	\$/kW/YR
(19) Incremental Capacity Cost Esc Rate	7.57%	

Stop Revenue Loss at In-Service Year? (Y=1, N=0) 0

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

(1) Non-Fuel Cost In Customer Bill (Base Year)	\$0.0767	\$/kWh
(2) Non-Fuel Escalation Rate	Per Table	
(3) Customer Demand Charge Per kW (Base Year)	\$0.0000	\$/kW/Mo
(4) Demand Charge Escalation Rate	Per Table	
* (5) Average Annual Change in Monthly Billing kW	0	kW/Mo.

Summary Results for This Analysis

Participants	TRC	RIM
NPV Benefits (\$000s)	\$15,213	\$15,213
NPV Costs (\$000s)	\$7,345	\$6,338
NPV Net Benefits (\$000s)	\$7,868	\$28,598
Benefit:Cost Ratio	2.071	(\$13,385)
	4,363	0.532

* Supplemental information.

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

Total Resource Cost-Effectiveness Measure

Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code												
1	2	3	4	5	6	7	8	9	10	11	12	13
Year	Change in Electric Supply Costs (\$'000s)	Utility's Program Costs (\$'000s)	Participants' Program Costs (\$'000s)	Other Costs (\$'000s)	Other Benefits (\$'000s)	Incremental Generation Cap Costs (\$'000s)	Incremental T&D Cap Costs (\$'000s)	Prog Induced Fuel Costs (\$'000s)	Total Costs (\$'000s)	Total Benefits (\$'000s)	Total Net Benefits (\$'000s)	Cumulative Discounted Net Benefits (\$'000s)
2019	\$0	\$198	\$1,248	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$0	\$228	\$1,438	\$0	\$0	\$0	\$0	(\$237)	\$1,666	\$131	(\$1,315)	(\$1,226)
2021	\$0	\$250	\$1,573	\$0	\$0	\$0	\$0	(\$395)	\$1,823	\$511	(\$1,358)	(\$2,407)
2022	\$0	\$276	\$1,736	\$0	\$0	\$0	\$0	(\$603)	\$2,012	\$769	(\$1,324)	(\$3,410)
2023	\$0	\$302	\$1,899	\$0	\$0	(\$660)	(\$223)	(\$330)	\$2,200	\$1,214	(\$987)	(\$4,409)
2024	\$0	\$0	\$0	\$0	\$0	(\$670)	(\$228)	(\$315)	\$0	\$1,213	(\$1,213)	(\$5,105)
2025	\$0	\$0	\$0	\$0	\$0	(\$679)	(\$232)	(\$345)	\$0	\$1,256	(\$1,256)	(\$3,308)
2026	\$0	\$0	\$0	\$0	\$0	(\$689)	(\$237)	(\$374)	\$0	\$1,300	(\$1,300)	(\$2,796)
2027	\$0	\$0	\$0	\$0	\$0	(\$698)	(\$242)	(\$399)	\$0	\$1,340	(\$1,340)	(\$2,083)
2028	\$0	\$0	\$0	\$0	\$0	(\$708)	(\$247)	(\$430)	\$0	\$1,386	(\$1,386)	(\$1,395)
2029	\$0	\$0	\$0	\$0	\$0	(\$718)	(\$253)	(\$464)	\$0	\$1,435	(\$1,435)	(\$531)
2030	\$0	\$0	\$0	\$0	\$0	(\$729)	(\$258)	(\$495)	\$0	\$1,481	(\$1,481)	(\$522)
2031	\$0	\$0	\$0	\$0	\$0	(\$739)	(\$263)	(\$542)	\$0	\$1,545	(\$1,545)	\$530
2032	\$0	\$0	\$0	\$0	\$0	(\$750)	(\$269)	(\$578)	\$0	\$1,597	(\$1,597)	\$1,129
2033	\$0	\$0	\$0	\$0	\$0	(\$761)	(\$274)	(\$612)	\$0	\$1,647	(\$1,647)	\$1,705
2034	\$0	\$0	\$0	\$0	\$0	(\$773)	(\$280)	(\$658)	\$0	\$1,711	(\$1,711)	\$2,263
2035	\$0	\$0	\$0	\$0	\$0	(\$784)	(\$286)	(\$697)	\$0	\$1,767	(\$1,767)	\$2,800
2036	\$0	\$0	\$0	\$0	\$0	(\$796)	(\$292)	(\$727)	\$0	\$1,815	(\$1,815)	\$3,315
2037	\$0	\$0	\$0	\$0	\$0	(\$808)	(\$298)	(\$775)	\$0	\$1,881	(\$1,881)	\$3,812
2038	\$0	\$0	\$0	\$0	\$0	(\$820)	(\$304)	(\$815)	\$0	\$1,940	(\$1,940)	\$4,290
2039	\$0	\$0	\$0	\$0	\$0	(\$832)	(\$311)	(\$864)	\$0	\$2,008	(\$2,008)	\$4,751
2040	\$0	\$0	\$0	\$0	\$0	(\$845)	(\$317)	(\$912)	\$0	\$2,074	(\$2,074)	\$5,196
2041	\$0	\$0	\$0	\$0	\$0	(\$858)	(\$324)	(\$952)	\$0	\$2,134	(\$2,134)	\$5,622
2042	\$0	\$0	\$0	\$0	\$0	(\$872)	(\$331)	(\$1,004)	\$0	\$2,207	(\$2,207)	\$6,033
2043	\$0	\$0	\$0	\$0	\$0	(\$885)	(\$338)	(\$1,062)	\$0	\$2,285	(\$2,285)	\$6,430
2044	\$0	\$0	\$0	\$0	\$0	(\$899)	(\$345)	(\$1,104)	\$0	\$2,348	(\$2,348)	\$6,810
2045	\$0	\$0	\$0	\$0	\$0	(\$913)	(\$352)	(\$1,164)	\$0	\$2,430	(\$2,430)	\$7,177
2046	\$0	\$0	\$0	\$0	\$0	(\$928)	(\$360)	(\$1,224)	\$0	\$2,511	(\$2,511)	\$7,530
2047	\$0	\$0	\$0	\$0	\$0	(\$942)	(\$367)	(\$1,266)	\$0	\$2,575	(\$2,575)	\$7,868

Nominal NPV	\$1,254	\$7,893	\$0,000	\$0,000	\$19,757	\$7,617	(\$19,443)	\$9,148	\$46,817	\$37,670
Discount Rate =	7.2%	\$6,337,971	(\$6,128,883)	\$7,344,977	\$15,212,917	\$7,867,940	2.07			

Run Date:

VS Pool Pump

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)	
2019 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2020 \$1,248	\$0	\$0	\$0	(\$322)	\$0	\$345	\$1,248	\$667	(\$581)	(\$542)	
2021 \$1,438	\$0	\$0	\$0	(\$725)	\$0	\$398	\$1,438	\$1,123	(\$315)	(\$815)	
2022 \$1,573	\$0	\$0	\$0	(\$1,194)	\$0	\$435	\$1,573	\$1,629	\$56	(\$770)	
2023 \$1,736	\$0	\$0	\$0	(\$1,730)	\$0	\$480	\$1,736	\$2,210	\$474	(\$412)	
2024 \$1,899	\$0	\$0	\$0	(\$2,311)	\$0	\$525	\$1,899	\$2,836	\$937	\$249	
2025 \$0	\$0	\$0	\$0	(\$2,300)	\$0	\$0	\$2,300	\$2,300	\$0	\$1,760	
2026 \$0	\$0	\$0	\$0	(\$2,332)	\$0	\$0	\$2,332	\$2,332	\$0	\$3,188	
2027 \$0	\$0	\$0	\$0	(\$2,363)	\$0	\$0	\$2,363	\$2,363	\$0	\$4,538	
2028 \$0	\$0	\$0	\$0	(\$2,393)	\$0	\$0	\$2,393	\$2,393	\$0	\$5,812	
2029 \$0	\$0	\$0	\$0	(\$2,438)	\$0	\$0	\$2,438	\$2,438	\$0	\$7,022	
2030 \$0	\$0	\$0	\$0	(\$2,489)	\$0	\$0	\$2,489	\$2,489	\$0	\$8,174	
2031 \$0	\$0	\$0	\$0	(\$2,525)	\$0	\$0	\$2,525	\$2,525	\$0	\$9,264	
2032 \$0	\$0	\$0	\$0	(\$2,570)	\$0	\$0	\$2,570	\$2,570	\$0	\$10,298	
2033 \$0	\$0	\$0	\$0	(\$2,604)	\$0	\$0	\$2,604	\$2,604	\$0	\$11,275	
2034 \$0	\$0	\$0	\$0	(\$2,643)	\$0	\$0	\$2,643	\$2,643	\$0	\$12,199	
2035 \$0	\$0	\$0	\$0	(\$2,684)	\$0	\$0	\$2,684	\$2,684	\$0	\$13,074	
2036 \$0	\$0	\$0	\$0	(\$2,700)	\$0	\$0	\$2,700	\$2,700	\$0	\$13,985	
2037 \$0	\$0	\$0	\$0	(\$2,756)	\$0	\$0	\$2,756	\$2,756	\$0	\$14,677	
2038 \$0	\$0	\$0	\$0	(\$2,803)	\$0	\$0	\$2,803	\$2,803	\$0	\$15,417	
2039 \$0	\$0	\$0	\$0	(\$2,959)	\$0	\$0	\$2,959	\$2,959	\$0	\$16,147	
2040 \$0	\$0	\$0	\$0	(\$3,023)	\$0	\$0	\$3,023	\$3,023	\$0	\$16,841	
2041 \$0	\$0	\$0	\$0	(\$3,082)	\$0	\$0	\$3,082	\$3,082	\$0	\$17,502	
2042 \$0	\$0	\$0	\$0	(\$3,091)	\$0	\$0	\$3,091	\$3,091	\$0	\$18,119	
2043 \$0	\$0	\$0	\$0	(\$3,168)	\$0	\$0	\$3,168	\$3,168	\$0	\$18,709	
2044 \$0	\$0	\$0	\$0	(\$3,239)	\$0	\$0	\$3,239	\$3,239	\$0	\$19,271	
2045 \$0	\$0	\$0	\$0	(\$3,308)	\$0	\$0	\$3,308	\$3,308	\$0	\$19,807	
2046 \$0	\$0	\$0	\$0	(\$3,395)	\$0	\$0	\$3,395	\$3,395	\$0	\$20,315	
2047 \$0	\$0	\$0	\$0	(\$3,423)	\$0	\$0	\$3,423	\$3,423	\$0	\$20,797	
2048 \$0	\$0	\$0	\$0	(\$3,481)	\$0	\$0	\$3,481	\$3,481	\$0	\$21,253	

Nominal NPV	\$7,893	\$0	\$0	\$2,183	\$7,893	\$76,205
Discount Rate =	7.25%	4.35	(\$25,839)	\$0	\$1,752	\$27,591,335

Run Date:

File name:

VS Pool Pump

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 Cap Costs (\$000s)	Incremental Fuel Costs (\$000s)	Prog Induced Other Costs (\$000s)	Other Benefits (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits to All Customers (\$000s)	Cumulative Discounted Net Benefits (\$000s)
2019	\$0,000	\$0,000	\$0,000	\$321,581	\$0,000	\$32,429	(\$98,173)	\$0,000	\$0,000	\$864,831	\$130,602	\$734,229	(\$684,569)
2020	\$0,000	\$198,250	\$345,000	(\$725,380)	\$0,000	(\$71,259)	(\$237,132)	\$0,000	\$0,000	\$1,351,288	\$308,391	(\$1,042,907)	(\$1,591,172)
2021	\$0,000	\$228,418	\$397,500	(\$1,194,340)	\$0,000	(\$115,380)	(\$395,465)	\$0,000	\$0,000	\$510,845	\$126,462	(\$2,700,321)	(\$2,700,321)
2022	\$0,000	\$249,967	\$435,000	(\$1,730,342)	\$0,000	(\$165,824)	(\$603,430)	\$0,000	\$0,000	\$2,486,188	\$769,254	(\$1,716,913)	(\$3,997,773)
2023	\$0,000	\$275,826	\$480,000	(\$2,310,962)	(\$660,427)	(\$222,933)	(\$330,297)	\$0,000	\$0,000	\$3,137,646	\$1,213,657	(\$1,923,989)	(\$5,353,372)
2024	\$0,000	\$301,685	\$525,000	(\$2,310,962)	(\$669,598)	(\$227,615)	(\$315,361)	\$0,000	\$0,000	\$2,300,362	\$121,574	(\$1,087,788)	(\$6,067,964)
2025	\$0,000	\$327,550	\$520,000	(\$2,300,362)	(\$678,960)	(\$232,395)	(\$345,076)	\$0,000	\$0,000	\$2,332,120	\$126,430	(\$6,726,815)	(\$6,726,815)
2026	\$0,000	\$354,418	\$515,000	(\$2,332,120)	(\$688,517)	(\$237,275)	(\$373,790)	\$0,000	\$0,000	\$2,362,660	\$129,582	(\$1,063,078)	(\$7,333,902)
2027	\$0,000	\$381,286	\$510,000	(\$2,362,660)	(\$698,273)	(\$242,256)	(\$399,005)	\$0,000	\$0,000	\$2,393,119	\$133,536	(\$1,053,583)	(\$7,894,873)
2028	\$0,000	\$408,154	\$505,000	(\$2,393,119)	(\$708,232)	(\$247,234)	(\$404,279)	\$0,000	\$0,000	\$2,428,053	\$138,856	(\$8,417,214)	(\$8,417,214)
2029	\$0,000	\$434,922	\$490,000	(\$2,438,053)	(\$718,400)	(\$252,339)	(\$454,474)	\$0,000	\$0,000	\$2,458,803	\$143,413	(\$8,904,778)	(\$8,904,778)
2030	\$0,000	\$461,685	\$475,000	(\$2,488,803)	(\$728,779)	(\$257,843)	(\$494,685)	\$0,000	\$0,000	\$2,524,945	\$148,136	(\$1,043,638)	(\$9,355,158)
2031	\$0,000	\$488,445	\$460,000	(\$2,524,945)	(\$739,374)	(\$263,257)	(\$542,097)	\$0,000	\$0,000	\$2,569,647	\$154,729	(\$1,249,919)	(\$9,767,543)
2032	\$0,000	\$515,213	\$445,000	(\$2,569,647)	(\$750,191)	(\$268,786)	(\$577,771)	\$0,000	\$0,000	\$2,604,400	\$159,748	(\$1,076,653)	(\$10,145,560)
2033	\$0,000	\$541,971	\$430,000	(\$2,604,400)	(\$761,609)	(\$274,430)	(\$611,609)	\$0,000	\$0,000	\$2,642,937	\$164,727	(\$995,665)	(\$10,493,816)
2034	\$0,000	\$568,739	\$415,000	(\$2,642,937)	(\$772,505)	(\$280,193)	(\$657,835)	\$0,000	\$0,000	\$2,684,333	\$171,533	(\$973,800)	(\$10,811,388)
2035	\$0,000	\$595,507	\$400,000	(\$2,684,333)	(\$784,012)	(\$286,077)	(\$697,316)	\$0,000	\$0,000	\$2,720,152	\$176,405	(\$932,727)	(\$11,094,991)
2036	\$0,000	\$622,275	\$385,000	(\$2,720,152)	(\$795,759)	(\$292,085)	(\$726,972)	\$0,000	\$0,000	\$2,755,558	\$181,481	(\$940,742)	(\$11,361,686)
2037	\$0,000	\$648,043	\$370,000	(\$2,755,558)	(\$807,750)	(\$298,219)	(\$774,623)	\$0,000	\$0,000	\$2,802,795	\$188,593	(\$922,202)	(\$11,605,441)
2038	\$0,000	\$674,811	\$355,000	(\$2,802,795)	(\$824,986)	(\$304,481)	(\$815,310)	\$0,000	\$0,000	\$2,959,496	\$1939,784	(\$1,019,712)	(\$11,856,741)
2039	\$0,000	\$701,579	\$340,000	(\$2,859,496)	(\$830,226)	(\$320,489)	(\$864,157)	\$0,000	\$0,000	\$3,022,656	\$2,007,522	(\$1,015,135)	(\$12,089,992)
2040	\$0,000	\$728,347	\$325,000	(\$2,902,656)	(\$845,247)	(\$320,876)	(\$911,830)	\$0,000	\$0,000	\$3,082,170	\$2,074,481	(\$1,007,689)	(\$12,305,872)
2041	\$0,000	\$755,115	\$310,000	(\$3,082,170)	(\$854,270)	(\$326,069)	(\$951,843)	\$0,000	\$0,000	\$3,090,692	\$2,134,183	(\$956,509)	(\$12,496,928)
2042	\$0,000	\$781,883	\$295,000	(\$3,260,692)	(\$871,565)	(\$330,875)	(\$1,004,311)	\$0,000	\$0,000	\$3,167,980	\$2,206,751	(\$961,229)	(\$12,675,941)
2043	\$0,000	\$808,651	\$280,000	(\$3,437,980)	(\$885,138)	(\$337,823)	(\$1,062,430)	\$0,000	\$0,000	\$3,239,253	\$2,285,391	(\$963,862)	(\$12,841,567)
2044	\$0,000	\$835,419	\$265,000	(\$3,630,253)	(\$898,983)	(\$344,918)	(\$1,104,044)	\$0,000	\$0,000	\$3,307,633	\$2,347,954	(\$959,679)	(\$12,996,932)
2045	\$0,000	\$862,187	\$250,000	(\$3,830,763)	(\$913,137)	(\$352,161)	(\$1,164,223)	\$0,000	\$0,000	\$3,365,310	\$2,429,521	(\$935,789)	(\$13,138,184)
2046	\$0,000	\$888,955	\$235,000	(\$3,836,510)	(\$927,576)	(\$359,566)	(\$1,223,829)	\$0,000	\$0,000	\$3,422,971	\$2,510,961	(\$912,010)	(\$13,266,535)
2047	\$0,000	\$915,723	\$220,000	(\$3,481,370)	(\$942,316)	(\$367,107)	(\$1,265,892)	\$0,000	\$0,000	\$3,481,370	\$2,575,315	(\$906,056)	(\$13,385,423)

Nominal NPV	\$1,254,147	\$2,182,500	\$74,022,000	(\$19,756,732)	(\$6,458,671)	(\$19,443,261)	(\$6,128,883)	\$0,000	\$0,000	\$77,458,647	\$46,817,407	(\$30,641,240)
Discount Rate =	7.25%	0.53										(\$13,385,423)

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	-0.10	kW/Cus
(2) Change in Peak kW per Customer at generator	0.12	kW Gen/Cus
(3) kW Line Loss Percentage	5.35%	
(4) Change in KWh per Customer at generator	(713)	kWh/Cus/Yr
(5) kWh Line Loss Percentage	5.38%	
(6) Group Line Loss Multiplier	1.0012	
(7) Annual Change in Customer kWh at Meter	(676)	kWh/Cus/Yr

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years
(2) Economic Life of Incremental Generation	40	Years
(3) Economic Life of Incremental T&D	42	Years
(4) K-Factor for Generation	1.3072	
(5) K-Factor for T&D	1.3060	
* (6) Switch: Rev Req (0) or Val-of-Def (1)	1	

(1) Utility Nonrecurring Cost Per Customer	\$265.00	\$/Cus
(2) Utility Recurring Cost Per Customer	\$0.00	\$/Cus/Year
(3) Utility Cost Escalation Rate	0.00%	
(4) Customer Equipment Cost	\$0.00	\$/Cus
(5) Customer Equipment Cost Escalation Rate	0.00%	
(6) Customer O&M Cost	\$0.00	\$/Cus/Year
(7) Customer O&M Cost Escalation Rate	2.10%	
* (8) Customer Tax Credit Per Installation	\$0.00	\$/Cus
* (9) Customer Tax Credit Escalation Rate	2.10%	
* (10) Change in Supply Costs	\$0.00	\$/Cus/Year
* (11) Supply Costs Escalation Rate	2.10%	
* (12) Utility Discount Rate	7.25%	
* (13) Utility AFUDC Rate	5.73%	
* (14) Utility Nonrecurring Rebate/Incentive	\$55.00	\$/Cus
* (15) Utility Recurring Rebate/Incentive	\$0.00	\$/Cus/Year
* (16) Utility Rebate/Incentive Escalation Rate	0.00%	

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2019
(2) In-Service Year For Incremental Generation	2024**
(3) In-Service Year For Incremental T & D	2020
(4) Base Year Incremental Generation Cost	\$806.95 \$/kW
(5) Base Year Incremental Transmission Cost	\$205.00 \$/kW
(6) Base Year Incremental Distribution Cost	\$173.77 \$/kW
(7) Gen, Tran, & Dist Cost Escalation Rate	2.10%
(8) Generator Fixed O & M Cost	\$59.33 \$/kW/Yr
(9) Generator Fixed O&M Escalation Rate	0.24%
(10) Transmission Fixed O & M Cost	\$3.87 \$/kW/Yr
(11) Distribution Fixed O & M Cost	\$6.68 \$/kW/Yr
(12) &D Fixed O&M Escalation Rate	2.10%
(13) Incremental Gen Variable O & M Costs	\$0.00 \$/kW/Yr
(14) Inre Gen Variable O&M Cost Esc Rate	0.00%
(15) Incremental Gen Capacity Factor	81.49%
(16) Incremental Generating Unit Fuel Cost	\$0.0314 \$/kW/h
(17) Incremental Gen Unit Fuel Esc Rate	2.42%
(18) Incremental Purchased Capacity Cost	\$12.54 \$/kW/YR
(19) Incremental Capacity Cost Esc Rate	7.57%

Stop Revenue Loss at In-Service Year? (Y=1, N=0)

0

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

(1) Non-Fuel Cost In Customer Bill (Base Year)	\$0.0767 \$/kWh
(2) Non-Fuel Escalation Rate	Per Table
(3) Customer Demand Charge Per kW (Base Year)	\$0.0000 \$/kW/Mo
(4) Demand Charge Escalation Rate	Per Table
* (5) Average Annual Change in Monthly Billing kW	0 kW/Mo.

Summary Results for This Analysis

Participants	TRC	RIM
NPV Benefits (\$000s)	\$8,280	\$8,280
NPV Costs (\$000s)	\$4,047	\$22,222
NPV Net Benefits (\$000s)	\$4,233	(\$13,942)
Benefit:Cost Ratio	2.046 ↗	#DIV/0!
	0.373	

* Supplemental information.

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

Total Resource Cost-Effectiveness Measure

Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code												
1	2	3	4	5	6	7	8	9	10	11	12	13
Year	Change in Electric Supply Costs (\$'000s)	Utility's Program Costs (\$'000s)	Participants' Program Costs (\$'000s)	Other Costs (\$'000s)	Other Benefits (\$'000s)	Incremental Generation Cap Costs (\$'000s)	Incremental T&D Cap Costs (\$'000s)	Prog Induced Fuel Costs (\$'000s)	Total Costs (\$'000s)	Total Benefits (\$'000s)	Total Net Benefits (\$'000s)	Cumulative Discounted Net Benefits (\$'000s)
2019	\$0	\$994	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$0	\$994	\$0	\$0	\$0	\$0	\$0	\$0	\$994	\$101	(\$893)	(\$33)
2021	\$0	\$994	\$0	\$0	\$0	\$0	\$0	\$0	\$994	\$223	(\$771)	(\$503)
2022	\$0	\$994	\$0	\$0	\$0	\$0	\$0	\$0	\$994	\$349	(\$494)	(\$2,025)
2023	\$0	\$994	\$0	\$0	\$0	\$0	\$0	\$0	\$994	\$500	(\$494)	(\$2,399)
2024	\$0	\$994	\$0	\$0	\$0	\$0	\$0	\$0	\$994	\$620	(\$374)	(\$2,562)
2025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$616	(\$2,257)
2026	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$643	(\$1,963)
2027	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$668	(\$1,482)
2028	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$692	(\$1,114)
2029	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$719	(\$575)
2030	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$749	(\$410)
2031	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$776	(\$75)
2032	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$814	\$252
2033	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$845	\$569
2034	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$875	\$876
2035	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$914	\$1,174
2036	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$948	\$1,462
2037	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$975	\$1,738
2038	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,015	\$2,007
2039	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,050	\$2,286
2040	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,091	\$2,516
2041	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,132	\$2,759
2042	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,167	\$2,982
2043	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,211	\$3,217
2044	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,259	\$3,436
2045	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,296	\$3,646
2046	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,345	\$3,849
2047	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,395	\$4,045
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,433	\$4,233

Nominal Npv	\$4,969	\$0,000	\$0,000	\$0,000	\$8,982	(\$3,483)	(\$12,956)	\$4,969	\$25,420	\$20,452
Discount Rate =	7.25%				(\$2,336,233)	(\$1,209,943)	(\$4,133,845)	\$4,046,989	\$8,280,020	\$4,233,031

Run Date:

Filename: Low Income

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)	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)
2019	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$0	\$0	\$0	\$0	\$0	\$0	\$206	\$0	\$475	\$475	\$443
2021	\$0	\$0	\$0	\$0	\$0	\$0	\$206	\$0	\$770	\$770	\$1,113
2022	\$0	\$0	\$0	\$0	\$0	\$0	\$206	\$0	\$1,085	\$1,085	\$1,992
2023	\$0	\$0	\$0	\$0	\$0	\$0	\$206	\$0	\$1,412	\$1,412	\$3,059
2024	\$0	\$0	\$0	\$0	\$0	\$0	\$206	\$0	\$1,735	\$1,735	\$4,281
2025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,522	\$1,522	\$51,281
2026	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,543	\$1,543	\$6,226
2027	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,563	\$1,563	\$7,118
2028	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,583	\$1,583	\$7,361
2029	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,613	\$1,613	\$8,762
2030	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,646	\$1,646	\$9,524
2031	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,670	\$1,670	\$10,244
2032	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,700	\$1,700	\$10,928
2033	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,723	\$1,723	\$11,574
2034	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,748	\$1,748	\$12,186
2035	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,776	\$1,776	\$12,765
2036	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,786	\$1,786	\$13,308
2037	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,823	\$1,823	\$13,325
2038	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,854	\$1,854	\$14,315
2039	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,958	\$1,958	\$14,797
2040	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,999	\$1,999	\$15,257
2041	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,039	\$2,039	\$15,893
2042	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,044	\$2,044	\$16,102
2043	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,095	\$2,095	\$16,492
2044	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,143	\$2,143	\$16,864
2045	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,188	\$2,188	\$17,218
2046	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,226	\$2,226	\$17,554
2047	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,264	\$2,264	\$17,873
2048	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,303	\$2,303	\$18,175

Nominal NPV	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Discount Rate =	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%

Benefit/Cost Ratio =	#DIV/0!										
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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 Cap Costs (\$000s)	Incremental Fuel Costs (\$000s)	Prog Induced Other Costs (\$000s)	Other Benefits (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits to All Customers (\$000s)	Cumulative Discounted Net Benefits (\$000s)
2019	\$0,000	\$993,750	\$0,000	\$206,250	(\$269,124)	\$0,000	(\$18,653)	(\$82,159)	\$0,000	\$0,000	\$1,469,124	\$10,812	\$0,000
2020	\$0,000	\$993,750	\$0,000	\$206,250	(\$564,131)	\$0,000	(\$38,089)	(\$184,419)	\$0,000	\$0,000	\$1,764,131	\$22,509	(\$1,541,623)
2021	\$0,000	\$993,750	\$0,000	\$206,250	(\$978,552)	\$0,000	(\$58,334)	(\$290,904)	\$0,000	\$0,000	\$2,078,556	\$349,238	(\$1,729,318)
2022	\$0,000	\$993,750	\$0,000	\$206,250	(\$1,205,646)	\$0,000	(\$79,412)	(\$420,456)	\$0,000	\$0,000	\$2,405,646	\$499,862	(\$1,905,783)
2023	\$0,000	\$993,750	\$0,000	\$206,250	(\$1,528,586)	(\$300,243)	(\$101,350)	(\$218,475)	\$0,000	\$0,000	\$2,728,586	\$620,067	(\$2,108,519)
2024	\$0,000	\$993,750	\$0,000	\$206,250	(\$1,521,574)	(\$304,412)	(\$103,478)	(\$208,596)	\$0,000	\$0,000	\$1,521,574	\$616,485	(\$905,089)
2025	\$0,000	\$0,000	\$0,000	\$1,542,581	(\$308,668)	(\$105,851)	(\$228,250)	(\$247,244)	\$0,000	\$0,000	\$1,542,581	\$624,569	(\$809,146)
2026	\$0,000	\$0,000	\$0,000	\$1,562,782	(\$313,013)	(\$107,870)	(\$247,870)	(\$247,244)	\$0,000	\$0,000	\$1,562,782	\$668,126	(\$894,656)
2027	\$0,000	\$0,000	\$0,000	\$1,582,929	(\$317,448)	(\$110,135)	(\$263,922)	(\$263,922)	\$0,000	\$0,000	\$1,582,929	\$691,505	(\$891,424)
2028	\$0,000	\$0,000	\$0,000	\$1,612,650	(\$321,976)	(\$112,448)	(\$284,608)	(\$284,608)	\$0,000	\$0,000	\$1,612,650	\$719,319	(\$893,119)
2029	\$0,000	\$0,000	\$0,000	\$1,646,219	(\$326,598)	(\$114,809)	(\$307,227)	(\$307,227)	\$0,000	\$0,000	\$1,646,219	\$748,634	(\$897,385)
2030	\$0,000	\$0,000	\$0,000	\$1,670,125	(\$331,317)	(\$117,220)	(\$327,209)	(\$327,209)	\$0,000	\$0,000	\$1,670,125	\$775,746	(\$894,379)
2031	\$0,000	\$0,000	\$0,000	\$1,699,683	(\$336,133)	(\$119,682)	(\$338,570)	(\$338,570)	\$0,000	\$0,000	\$1,699,683	\$814,385	(\$885,308)
2032	\$0,000	\$0,000	\$0,000	\$1,722,681	(\$341,051)	(\$122,195)	(\$362,167)	(\$362,167)	\$0,000	\$0,000	\$1,722,681	\$845,413	(\$877,268)
2033	\$0,000	\$0,000	\$0,000	\$1,748,171	(\$346,071)	(\$124,761)	(\$364,045)	(\$364,045)	\$0,000	\$0,000	\$1,748,171	\$875,381	(\$872,790)
2034	\$0,000	\$0,000	\$0,000	\$1,775,552	(\$351,195)	(\$127,381)	(\$345,125)	(\$345,125)	\$0,000	\$0,000	\$1,775,552	\$913,701	(\$11591,376)
2035	\$0,000	\$0,000	\$0,000	\$1,786,003	(\$356,426)	(\$130,056)	(\$3461,240)	(\$3461,240)	\$0,000	\$0,000	\$1,786,003	\$947,723	(\$883,280)
2036	\$0,000	\$0,000	\$0,000	\$1,822,664	(\$361,767)	(\$132,787)	(\$3480,856)	(\$3480,856)	\$0,000	\$0,000	\$1,822,664	\$975,410	(\$847,254)
2037	\$0,000	\$0,000	\$0,000	\$1,853,909	(\$367,218)	(\$135,376)	(\$3512,375)	(\$3512,375)	\$0,000	\$0,000	\$1,853,909	\$1,015,169	(\$838,740)
2038	\$0,000	\$0,000	\$0,000	\$1,897,559	(\$372,784)	(\$138,423)	(\$3539,287)	(\$3539,287)	\$0,000	\$0,000	\$1,897,559	\$1,050,494	(\$897,065)
2039	\$0,000	\$0,000	\$0,000	\$1,999,336	(\$378,465)	(\$141,330)	(\$571,597)	(\$571,597)	\$0,000	\$0,000	\$1,999,336	\$1,091,392	(\$907,945)
2040	\$0,000	\$0,000	\$0,000	\$2,038,702	(\$384,285)	(\$144,298)	(\$603,130)	(\$603,130)	\$0,000	\$0,000	\$2,038,702	\$1,131,693	(\$907,009)
2041	\$0,000	\$0,000	\$0,000	\$2,044,338	(\$390,186)	(\$147,328)	(\$629,597)	(\$629,597)	\$0,000	\$0,000	\$2,044,338	\$1,167,111	(\$877,228)
2042	\$0,000	\$0,000	\$0,000	\$2,095,461	(\$396,230)	(\$150,422)	(\$664,302)	(\$664,302)	\$0,000	\$0,000	\$2,095,461	\$1,210,954	(\$884,507)
2043	\$0,000	\$0,000	\$0,000	\$2,142,604	(\$402,400)	(\$153,581)	(\$702,744)	(\$702,744)	\$0,000	\$0,000	\$2,142,604	\$1,258,725	(\$883,879)
2044	\$0,000	\$0,000	\$0,000	\$2,187,834	(\$408,659)	(\$156,806)	(\$730,270)	(\$730,270)	\$0,000	\$0,000	\$2,187,834	\$1,295,775	(\$892,059)
2045	\$0,000	\$0,000	\$0,000	\$2,225,985	(\$415,129)	(\$160,099)	(\$770,76)	(\$770,76)	\$0,000	\$0,000	\$2,225,985	\$1,345,304	(\$880,881)
2046	\$0,000	\$0,000	\$0,000	\$2,264,125	(\$421,694)	(\$163,461)	(\$809,502)	(\$809,502)	\$0,000	\$0,000	\$2,264,125	\$1,394,656	(\$869,469)
2047	\$0,000	\$0,000	\$0,000	\$2,302,753	(\$428,395)	(\$166,894)	(\$837,324)	(\$837,324)	\$0,000	\$0,000	\$2,302,753	\$1,432,613	(\$870,140)

Nominal NPV	\$4,968,750	\$1,031,250	\$49,252,274	\$8,981,781)	(\$3,482,328)	(\$12,986,172)	\$0,000	\$0,000	\$55,232,274	\$25,420,482	(\$29,831,792)
Discount Rate =	7.25%	Benefit/Cost Ratio =	0.37								

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	-1.34	kW/Cus
(2) Change in Peak kW per Customer at generator	-1.65	kW Gen/Cus
(3) kW Line Loss Percentage	5.35%	
(4) Change in KWh per Customer at generator	(3,786)	kWh/Cus/Yr
(5) kWh Line Loss Percentage	5.38%	
(6) Group Line Loss Multiplier	1.0012	
(7) Annual Change in Customer kWh at Meter	(3.592)	kWh/Cus/Yr

II. Economic Life and K-Factors

(1) DSM Program Study Period	30	Years
(2) Economic Life of Incremental Generation	40	Years
(3) Economic Life of Incremental T&D	42	Years
(4) K-Factor for Generation	1.3072	
(5) K-Factor for T&D	1.3060	
* (6) Switch: Rev Req (0) or Val-of-Def (1)	1	

(1) Utility Nonrecurring Cost Per Customer	\$529.75	\$/Cus
(2) Utility Recurring Cost Per Customer	\$0.00	\$/Cus/Year
(3) Utility Cost Escalation Rate	0.00%	
(4) Customer Equipment Cost	\$5,166.00	\$/Cus
(5) Customer Equipment Cost Escalation Rate	0.00%	
(6) Customer O&M Cost	\$0.00	\$/Cus/Year
(7) Customer O&M Cost Escalation Rate	2.10%	
* (8) Customer Tax Credit Per Installation	\$0.00	\$/Cus
* (9) Customer Tax Credit Escalation Rate	2.10%	
* (10) Change in Supply Costs	\$0.00	\$/Cus/Year
* (11) Supply Costs Escalation Rate	2.10%	
* (12) Utility Discount Rate	7.25%	
* (13) Utility AFUDC Rate	5.73%	
* (14) Utility Nonrecurring Rebate/Incentive	\$29.75	\$/Cus
* (15) Utility Recurring Rebate/Incentive	\$0.00	\$/Cus/Year
* (16) Utility Rebate/Incentive Escalation Rate	0.00%	

IV. Incremental Generation, Transmission, & Distribution Costs

(1) Base Year	2019
(2) In-Service Year For Incremental Generation	2024**
(3) In-Service Year For Incremental T & D	2020
(4) Base Year Incremental Generation Cost	\$806.95 \$/kW
(5) Base Year Incremental Transmission Cost	\$205.00 \$/kW
(6) Base Year Incremental Distribution Cost	\$173.77 \$/kW
(7) Gen, Tran, & Dist Cost Escalation Rate	2.10%
(8) Generator Fixed O & M Cost	\$59.33 \$/kW/Yr
(9) Generator Fixed O&M Escalation Rate	0.24%
(10) Transmission Fixed O & M Cost	\$3.87 \$/kW/Yr
(11) Distribution Fixed O & M Cost	\$6.68 \$/kW/Yr
(12) &D Fixed O&M Escalation Rate	2.10%
(13) Incremental Gen Variable O & M Costs	\$0.00 \$/kW/Yr
(14) Inre Gen Variable O&M Cost Esc Rate	0.00%
(15) Incremental Gen Capacity Factor	81.49%
(16) Incremental Generating Unit Fuel Cost	\$0.0309 \$/kWh
(17) Incremental Gen Unit Fuel Esc Rate	2.85%
(18) Incremental Purchased Capacity Cost	\$12.54 \$/kW/YR
(19) Incremental Capacity Cost Esc Rate	7.57%

Stop Revenue Loss at In-Service Year? (Y=1, N=0)

0

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

(1) Non-Fuel Cost In Customer Bill (Base Year)	\$0.0650 \$/kWh
(2) Non-Fuel Escalation Rate	Per Table
(3) Customer Demand Charge Per kW (Base Year)	\$0.0000 \$/kW/Mo
(4) Demand Charge Escalation Rate	Per Table
* (5) Average Annual Change in Monthly Billing kW	0 kW/Mo.

Summary Results for This Analysis

Participants	TRC
NPV Benefits (\$000s)	\$10,427
NPV Costs (\$000s)	\$11,110
NPV Net Benefits (\$000s)	(\$684)
Benefit:Cost Ratio	0.938

* Supplemental information.

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

Total Resource Cost-Effectiveness Measure

Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code												
1	2	3	4	5	6	7	8	9	10	11	12	13
Year	Change in Electric Supply Costs (\$'000s)	Utility's Program Costs (\$'000s)	Participants' Program Costs (\$'000s)	Other Costs (\$'000s)	Other Benefits (\$'000s)	Incremental Generation Cap Costs (\$'000s)	Incremental T&D Cap Costs (\$'000s)	Prog Induced Fuel Costs (\$'000s)	Total Costs (\$'000s)	Total Benefits (\$'000s)	Total Net Benefits (\$'000s)	Cumulative Discounted Net Benefits (\$'000s)
2019	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$0	\$212	\$2,066	\$0	\$0	\$0	\$27	(\$46)	\$2,278	\$72	(\$2,206)	(\$2,057)
2021	\$0	\$233	\$2,273	\$0	\$0	\$0	(\$57)	(\$108)	\$2,506	\$165	(\$2,341)	(\$2,092)
2022	\$0	\$257	\$2,506	\$0	\$0	\$0	(\$92)	(\$179)	\$2,762	\$270	(\$2,422)	(\$6,112)
2023	\$0	\$281	\$2,738	\$0	\$0	\$0	(\$131)	(\$271)	\$3,019	\$402	(\$2,617)	(\$8,390)
2024	\$0	\$302	\$2,945	\$0	\$0	(\$519)	(\$175)	(\$204)	\$3,247	\$897	(\$2,349)	(\$9,745)
2025	\$0	\$0	\$0	\$0	\$0	(\$526)	(\$179)	(\$199)	\$0	\$904	\$904	(\$9,151)
2026	\$0	\$0	\$0	\$0	\$0	(\$533)	(\$183)	(\$213)	\$0	\$929	\$929	(\$8,582)
2027	\$0	\$0	\$0	\$0	\$0	(\$541)	(\$186)	(\$227)	\$0	\$954	\$954	(\$8,037)
2028	\$0	\$0	\$0	\$0	\$0	(\$549)	(\$190)	(\$238)	\$0	\$977	\$977	(\$7,517)
2029	\$0	\$0	\$0	\$0	\$0	(\$556)	(\$194)	(\$253)	\$0	\$1,004	\$1,004	(\$7,019)
2030	\$0	\$0	\$0	\$0	\$0	(\$564)	(\$198)	(\$269)	\$0	\$1,032	\$1,032	(\$6,541)
2031	\$0	\$0	\$0	\$0	\$0	(\$572)	(\$203)	(\$283)	\$0	\$1,058	\$1,058	(\$6,085)
2032	\$0	\$0	\$0	\$0	\$0	(\$581)	(\$207)	(\$305)	\$0	\$1,093	\$1,093	(\$5,645)
2033	\$0	\$0	\$0	\$0	\$0	(\$589)	(\$211)	(\$323)	\$0	\$1,123	\$1,123	(\$5,224)
2034	\$0	\$0	\$0	\$0	\$0	(\$598)	(\$216)	(\$338)	\$0	\$1,152	\$1,152	(\$4,821)
2035	\$0	\$0	\$0	\$0	\$0	(\$607)	(\$220)	(\$359)	\$0	\$1,186	\$1,186	(\$4,434)
2036	\$0	\$0	\$0	\$0	\$0	(\$616)	(\$225)	(\$377)	\$0	\$1,217	\$1,217	(\$4,064)
2037	\$0	\$0	\$0	\$0	\$0	(\$625)	(\$229)	(\$391)	\$0	\$1,246	\$1,246	(\$3,711)
2038	\$0	\$0	\$0	\$0	\$0	(\$634)	(\$234)	(\$413)	\$0	\$1,281	\$1,281	(\$3,372)
2039	\$0	\$0	\$0	\$0	\$0	(\$644)	(\$239)	(\$432)	\$0	\$1,315	\$1,315	(\$3,048)
2040	\$0	\$0	\$0	\$0	\$0	(\$654)	(\$244)	(\$454)	\$0	\$1,352	\$1,352	(\$2,737)
2041	\$0	\$0	\$0	\$0	\$0	(\$664)	(\$249)	(\$477)	\$0	\$1,390	\$1,390	(\$2,439)
2042	\$0	\$0	\$0	\$0	\$0	(\$674)	(\$254)	(\$494)	\$0	\$1,423	\$1,423	(\$2,155)
2043	\$0	\$0	\$0	\$0	\$0	(\$685)	(\$260)	(\$518)	\$0	\$1,463	\$1,463	(\$1,883)
2044	\$0	\$0	\$0	\$0	\$0	(\$695)	(\$265)	(\$545)	\$0	\$1,506	\$1,506	(\$1,521)
2045	\$0	\$0	\$0	\$0	\$0	(\$706)	(\$271)	(\$565)	\$0	\$1,542	\$1,542	(\$1,372)
2046	\$0	\$0	\$0	\$0	\$0	(\$717)	(\$277)	(\$592)	\$0	\$1,586	\$1,586	(\$1,132)
2047	\$0	\$0	\$0	\$0	\$0	(\$729)	(\$282)	(\$621)	\$0	\$1,632	\$1,632	(\$903)
2048	\$0	\$0	\$0	\$0	\$0	(\$740)	(\$288)	(\$640)	\$0	\$1,669	\$1,669	(\$584)

Nominal Npv	\$1,235	\$12,528	\$0.000	\$0.000	(\$15,519)	(\$5,988)	(\$10,333)	\$13,812	\$31,840	\$18,028
Discount Rate =	7.2%	\$1,033,362	\$10,077,107	\$0.000	(\$5,073,370)	(\$2,065,823)	(\$3,287,666)	\$11,10,469	\$10,426,859	(\$683,610)

Run Date:

Filename: Business HVAC

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

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)
2019	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$212	\$2,066	\$351	\$0
2020	\$2,066	\$0	\$0	\$0	(\$139)	\$0	\$233	\$2,273	\$522	\$1,751	(\$1,600)
2021	\$2,273	\$0	\$0	\$0	(\$289)	\$0	\$257	\$2,506	\$733	\$1,772	(\$3,122)
2022	\$2,506	\$0	\$0	\$0	(\$476)	\$0	\$281	\$2,738	\$975	\$1,763	(\$4,558)
2023	\$2,738	\$0	\$0	\$0	(\$694)	\$0	\$302	\$2,945	\$1,219	(\$1,726)	(\$5,891)
2024	\$2,945	\$0	\$0	\$0	(\$917)	\$0	\$0	\$0	\$936	\$945	(\$7,106)
2025	\$0	\$0	\$0	\$0	(\$936)	\$0	\$0	\$0	\$0	\$0	(\$6,492)
2026	\$0	\$0	\$0	\$0	(\$945)	\$0	\$0	\$0	\$0	\$0	(\$5,913)
2027	\$0	\$0	\$0	\$0	(\$957)	\$0	\$0	\$0	\$0	\$0	(\$5,366)
2028	\$0	\$0	\$0	\$0	(\$970)	\$0	\$0	\$0	\$0	\$0	(\$4,850)
2029	\$0	\$0	\$0	\$0	(\$990)	\$0	\$0	\$0	\$0	\$0	(\$4,359)
2030	\$0	\$0	\$0	\$0	(\$1,010)	\$0	\$0	\$0	\$0	\$0	(\$3,891)
2031	\$0	\$0	\$0	\$0	(\$1,032)	\$0	\$0	\$0	\$0	\$0	(\$3,446)
2032	\$0	\$0	\$0	\$0	(\$1,048)	\$0	\$0	\$0	\$0	\$0	(\$3,024)
2033	\$0	\$0	\$0	\$0	(\$1,067)	\$0	\$0	\$0	\$0	\$0	(\$2,524)
2034	\$0	\$0	\$0	\$0	(\$1,082)	\$0	\$0	\$0	\$0	\$0	(\$2,245)
2035	\$0	\$0	\$0	\$0	(\$1,099)	\$0	\$0	\$0	\$0	\$0	(\$1,887)
2036	\$0	\$0	\$0	\$0	(\$1,117)	\$0	\$0	\$0	\$0	\$0	(\$1,547)
2037	\$0	\$0	\$0	\$0	(\$1,124)	\$0	\$0	\$0	\$0	\$0	(\$1,228)
2038	\$0	\$0	\$0	\$0	(\$1,148)	\$0	\$0	\$0	\$0	\$0	(\$1,067)
2039	\$0	\$0	\$0	\$0	(\$1,169)	\$0	\$0	\$0	\$0	\$0	(\$1,082)
2040	\$0	\$0	\$0	\$0	(\$1,239)	\$0	\$0	\$0	\$0	\$0	(\$1,099)
2041	\$0	\$0	\$0	\$0	(\$1,267)	\$0	\$0	\$0	\$0	\$0	(\$1,117)
2042	\$0	\$0	\$0	\$0	(\$1,294)	\$0	\$0	\$0	\$0	\$0	(\$1,124)
2043	\$0	\$0	\$0	\$0	(\$1,297)	\$0	\$0	\$0	\$0	\$0	(\$1,148)
2044	\$0	\$0	\$0	\$0	(\$1,331)	\$0	\$0	\$0	\$0	\$0	(\$1,169)
2045	\$0	\$0	\$0	\$0	(\$1,363)	\$0	\$0	\$0	\$0	\$0	(\$1,239)
2046	\$0	\$0	\$0	\$0	(\$1,393)	\$0	\$0	\$0	\$0	\$0	(\$1,267)
2047	\$0	\$0	\$0	\$0	(\$1,418)	\$0	\$0	\$0	\$0	\$0	(\$1,294)
2048	\$0	\$0	\$0	\$0	(\$1,444)	\$0	\$0	\$0	\$0	\$0	(\$1,297)
											\$1,297
											\$1,331
											\$1,363
											\$1,393
											\$1,418
											\$1,444
											\$1,471
Nominal NPV	\$12,528										
Discount Rate =	\$10,077	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Benefit/Cost Ratio =	7.25%										

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 Fuel Costs (\$000s)	Prog Induced Other Costs (\$000s)	Other Benefits (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits to All Customers (\$000s)	Cumulative Discounted Net Benefits (\$000s)
2019	\$0,000	\$0,000	\$0,000	\$211,900	\$211,900	\$211,900	\$211,900	\$26,581)	\$45,741)	\$0,000	\$0,000	\$0,000	\$0,000
2020	\$0,000	\$233,090	\$233,090	\$288,749)	\$233,090	\$288,749)	\$233,090	\$56,993)	\$107,680)	\$0,000	\$0,000	\$754,929	\$164,673)
2021	\$0,000	\$256,929	\$256,929	\$278,401)	\$256,929	\$278,401)	\$256,929	\$91,787)	\$178,573)	\$0,000	\$0,000	\$990,259	\$270,360
2022	\$0,000	\$280,768	\$280,768	\$280,768)	\$280,768	\$280,768)	\$280,768	\$131,200)	\$270,629)	\$0,000	\$0,000	\$1,259,570	\$401,829
2023	\$0,000	\$301,958	\$301,958	\$301,958)	\$301,958	\$301,958)	\$301,958	\$175,117)	\$203,573)	\$0,000	\$0,000	\$1,520,987	\$897,484
2024	\$0,000	\$322,129	\$322,129	\$322,129)	\$322,129	\$322,129)	\$322,129	\$178,794)	\$199,307)	\$0,000	\$0,000	\$935,933	\$904,080
2025	\$0,000	\$342,700	\$342,700	\$342,700)	\$342,700	\$342,700)	\$342,700	\$182,549)	\$212,991)	\$0,000	\$0,000	\$944,547	\$928,872
2026	\$0,000	\$363,271	\$363,271	\$363,271)	\$363,271	\$363,271)	\$363,271	\$186,383)	\$226,565)	\$0,000	\$0,000	\$957,185	\$953,786
2027	\$0,000	\$383,842	\$383,842	\$383,842)	\$383,842	\$383,842)	\$383,842	\$190,297)	\$238,087)	\$0,000	\$0,000	\$969,881	\$976,886
2028	\$0,000	\$404,413	\$404,413	\$404,413)	\$404,413	\$404,413)	\$404,413	\$194,293)	\$250,326)	\$0,000	\$0,000	\$980,044	\$1,003,748
2029	\$0,000	\$424,984	\$424,984	\$424,984)	\$424,984	\$424,984)	\$424,984	\$198,373)	\$269,139)	\$0,000	\$0,000	\$1,009,761	\$1,031,824
2030	\$0,000	\$445,555	\$445,555	\$445,555)	\$445,555	\$445,555)	\$445,555	\$202,539)	\$283,044)	\$0,000	\$0,000	\$1,032,117	\$1,058,048
2031	\$0,000	\$466,126	\$466,126	\$466,126)	\$466,126	\$466,126)	\$466,126	\$207,792)	\$305,122)	\$0,000	\$0,000	\$1,047,828	\$1,092,702
2032	\$0,000	\$486,697	\$486,697	\$486,697)	\$486,697	\$486,697)	\$486,697	\$212,135)	\$322,616)	\$0,000	\$0,000	\$1,067,424	\$1,123,036
2033	\$0,000	\$507,268	\$507,268	\$507,268)	\$507,268	\$507,268)	\$507,268	\$216,569)	\$338,099)	\$0,000	\$0,000	\$1,082,484	\$1,151,626
2034	\$0,000	\$527,839	\$527,839	\$527,839)	\$527,839	\$527,839)	\$527,839	\$221,985)	\$359,448)	\$0,000	\$0,000	\$1,099,279	\$1,186,356
2035	\$0,000	\$548,410	\$548,410	\$548,410)	\$548,410	\$548,410)	\$548,410	\$226,373)	\$376,837)	\$0,000	\$0,000	\$1,117,356	\$1,217,406
2036	\$0,000	\$568,981	\$568,981	\$568,981)	\$568,981	\$568,981)	\$568,981	\$231,736)	\$391,451)	\$0,000	\$0,000	\$1,123,797	\$1,245,966
2037	\$0,000	\$589,552	\$589,552	\$589,552)	\$589,552	\$589,552)	\$589,552	\$237,197)	\$412,695)	\$0,000	\$0,000	\$1,148,241	\$1,281,448
2038	\$0,000	\$610,123	\$610,123	\$610,123)	\$610,123	\$610,123)	\$610,123	\$242,556)	\$434,115)	\$0,000	\$0,000	\$1,168,957	\$1,314,827
2039	\$0,000	\$630,694	\$630,694	\$630,694)	\$630,694	\$630,694)	\$630,694	\$247,917)	\$453,737)	\$0,000	\$0,000	\$1,239,417	\$1,351,865
2040	\$0,000	\$651,265	\$651,265	\$651,265)	\$651,265	\$651,265)	\$651,265	\$253,359)	\$476,962)	\$0,000	\$0,000	\$1,267,359	\$1,390,239
2041	\$0,000	\$671,836	\$671,836	\$671,836)	\$671,836	\$671,836)	\$671,836	\$258,718)	\$494,204)	\$0,000	\$0,000	\$1,277,356	\$1,422,947
2042	\$0,000	\$692,407	\$692,407	\$692,407)	\$692,407	\$692,407)	\$692,407	\$264,079)	\$518,329)	\$0,000	\$0,000	\$1,296,739	\$1,462,862
2043	\$0,000	\$712,978	\$712,978	\$712,978)	\$712,978	\$712,978)	\$712,978	\$269,448)	\$545,161)	\$0,000	\$0,000	\$1,331,086	\$1,505,813
2044	\$0,000	\$733,549	\$733,549	\$733,549)	\$733,549	\$733,549)	\$733,549	\$274,817)	\$570,937)	\$0,000	\$0,000	\$1,362,683	\$1,542,111
2045	\$0,000	\$754,120	\$754,120	\$754,120)	\$754,120	\$754,120)	\$754,120	\$276,281)	\$592,124)	\$0,000	\$0,000	\$1,392,980	\$1,586,032
2046	\$0,000	\$774,691	\$774,691	\$774,691)	\$774,691	\$774,691)	\$774,691	\$282,436)	\$620,786)	\$0,000	\$0,000	\$1,418,397	\$1,631,845
2047	\$0,000	\$795,262	\$795,262	\$795,262)	\$795,262	\$795,262)	\$795,262	\$288,367)	\$640,171)	\$0,000	\$0,000	\$1,443,801	\$1,668,740
2048	\$0,000	\$815,833	\$815,833	\$815,833)	\$815,833	\$815,833)	\$815,833	\$294,202)	\$640,202)	\$0,000	\$0,000	\$1,474,939	\$224,939

Nominal NPV	\$1,284,644	\$1,284,644	\$30,256,163)	\$15,519,171)	\$5,987,800)	\$10,332,743)	\$31,839,714	\$985,736)
Discount Rate =	7.25%	\$1,033,362	\$1,033,362	\$10,514,285)	\$5,073,370)	\$2,065,823)	\$12,581,009	\$10,426,859
Benefit/Cost Ratio =								(\$2,154,149)

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	-1.00	kW/Cus
(2) Change in Peak kW per Customer at generator	-1.01	kW Gen/Cus
(3) kW Line Loss Percentage	5.35%	
(4) Change in KWh per Customer at generator	0	kWh/Cus/Yr
(5) kWh Line Loss Percentage	5.38%	
(6) Group Line Loss Multiplier	1.0012	
(7) Annual Change in Customer kWh at Meter	0	kWh/Cus/Yr

II. Economic Life and K-Factors

(1) DSM Program Study Period	15	Years
(2) Economic Life of Incremental Generation	40	Years
(3) Economic Life of Incremental T&D	42	Years
(4) K-Factor for Generation	1.3072	
(5) K-Factor for T&D	1.3060	
* (6) Switch: Rev Req (0) or Val-of-Def (1)	1	

III. Utility & Customer Costs

(1) Utility Nonrecurring Cost Per Customer	\$0.00	\$/Cus
(2) Utility Recurring Cost Per Customer	\$2.50	\$/Cus/Year
(3) Utility Cost Escalation Rate	0.00%	
(4) Customer Equipment Cost	\$0.00	\$/Cus
(5) Customer Equipment Cost Escalation Rate	0.00%	
(6) Customer O&M Cost	\$0.00	\$/Cus/Year
(7) Customer O&M Cost Escalation Rate	2.10%	
* (8) Customer Tax Credit Per Installation	\$0.00	\$/Cus
* (9) Customer Tax Credit Escalation Rate	2.10%	
* (10) Change in Supply Costs	\$0.00	\$/Cus/Year
* (11) Supply Costs Escalation Rate	2.10%	
* (12) Utility Discount Rate	7.25%	
* (13) Utility AFUDC Rate	5.73%	
* (14) Utility Nonrecurring Rebate/Incentive	\$0.00	\$/Cus
* (15) Utility Recurring Rebate/Incentive	\$82.50	\$/Cus/Year
* (16) Utility Rebate/Incentive Escalation Rate	0.00%	

Summary Results for This Analysis

Participants	TRC	RIM
\$793	\$818	\$818
\$0	\$24	\$817
\$793	\$793	\$0
#DIV/0!	#DIV/0!	1.000

* Supplemental information.

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

Run Date:

Filename:

Curtailable

Total Resource Cost-Effectiveness Measure

Cost-Effectiveness Analysis per Rule 25-17.008 Florida Administrative Code												
1	2	3	4	5	6	7	8	9	10	11	12	13
Year	Change in Electric Supply Costs (\$'000s)	Utility's Program Costs (\$'000s)	Participants' Program Costs (\$'000s)	Other Costs (\$'000s)	Other Benefits (\$'000s)	Incremental Generation Cap Costs (\$'000s)	Incremental T&D Cap Costs (\$'000s)	Prog Induced Fuel Costs (\$'000s)	Total Costs (\$'000s)	Total Benefits (\$'000s)	Total Net Benefits (\$'000s)	Cumulative Discounted Net Benefits (\$'000s)
2020	\$0	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2021	\$0	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$5)
2022	\$0	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$7)
2023	\$0	\$3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$9)
2024	\$0	\$3	\$0	\$0	\$0	(\$121)	\$0	\$0	\$0	\$0	\$0	\$0
2025	\$0	\$3	\$0	\$0	\$0	(\$131)	\$0	\$0	\$0	\$0	\$0	\$118
2026	\$0	\$3	\$0	\$0	\$0	(\$133)	\$0	\$0	\$0	\$0	\$0	\$128
2027	\$0	\$3	\$0	\$0	\$0	(\$135)	\$0	\$0	\$0	\$0	\$0	\$130
2028	\$0	\$3	\$0	\$0	\$0	(\$137)	\$0	\$0	\$0	\$0	\$0	\$132
2029	\$0	\$3	\$0	\$0	\$0	(\$138)	\$0	\$0	\$0	\$0	\$0	\$134
2030	\$0	\$3	\$0	\$0	\$0	(\$140)	\$0	\$0	\$0	\$0	\$0	\$136
2031	\$0	\$3	\$0	\$0	\$0	(\$142)	\$0	\$0	\$0	\$0	\$0	\$138
2032	\$0	\$3	\$0	\$0	\$0	(\$144)	\$0	\$0	\$0	\$0	\$0	\$140
2033	\$0	\$3	\$0	\$0	\$0	(\$147)	\$0	\$0	\$0	\$0	\$0	\$142
2034	\$0	\$3	\$0	\$0	\$0	(\$149)	\$0	\$0	\$0	\$0	\$0	\$144

Nominal NPV	\$38	\$24,034	\$0.00	\$0.00	\$0.00	(\$1,517)	\$0.00	\$0.00	\$0.00	\$24,034	\$1,517	\$1,479
Discount Rate =	7.2%											
Benefit/Cost Ratio =	34.01											

Run Date:

Filename: Curtailable

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)
2020	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$83
2021	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$159
2022	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$231
2023	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$298
2024	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$360
2025	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$418
2026	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$473
2027	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$523
2028	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$570
2029	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$614
2030	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$655
2031	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$693
2032	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$729
2033	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$762
2034	\$0	\$0	\$0	\$0	\$0	\$0	\$83	\$0	\$83	\$83	\$793
Nominal NPV		\$0	\$0	\$0	\$0	\$0	\$1,238	\$0.000	\$733.130	\$1,238	
Discount Rate =		7.25%									
Benefit/Cost Ratio =		#DIV/0!									

Run Date:

File name:

Curtailable

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 Fuel Costs (\$000s)	Prog Induced Other Costs (\$000s)	Other Benefits (\$000s)	Total Costs (\$000s)	Total Benefits (\$000s)	Total Net Benefits to All Customers (\$000s)	Cumulative Discounted Net Benefits (\$000s)
2020	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2021	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2022	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2023	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2024	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2025	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2026	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2027	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2028	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2029	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2030	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2031	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2032	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2033	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	
2034	\$0,000	\$2,500	\$82,500	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$0,000	\$85,000	\$0,000	(\$85,000)	

Nominal NPV	\$37,500	\$1,237,500	\$1,516,537	\$1,275,000	\$1,516,537	\$241,537
Discount Rate =	\$24,034	\$793,130	\$0,000	\$0,000	\$817,104	\$817,504
Benefit/Cost Ratio =	7.25%		1.00			

Schedule “2”



Gulf Power®

RATE SCHEDULE ECC COST RECOVERY CLAUSE ENERGY CONSERVATION

Section No. VI
Thirty-Second Revised Sheet No. 6.38
Canceling Thirty-First Revised Sheet No. 6.38

PAGE
1 of 1

EFFECTIVE DATE

APPLICABILITY:

Applicable to the monthly rate of each filed retail rate schedule under which a Customer receives service.

DETERMINATION OF ENERGY CONSERVATION COST RECOVERY CLAUSE ADJUSTMENT:

Bills should be decreased or increased by an adjustment calculated in accordance with the formula and procedure specified by the Florida Public Service Commission designed to reflect the recovery of conservation related expenditures by the Company.

Each rate schedule shall be increased or decreased to the nearest .001 cents for each kWh of sales to reflect the recovery of conservation related expenditures by the Company. The Company shall record both projected and actual expenses and revenues associated with the implementation of the Company's Energy Conservation Plan as authorized by the Commission. The total cost recovery adjustment per kWh applicable to energy delivered will include, when applicable, a true-up with interest to prior actual costs which will be determined in accordance with the formula and procedures specified by the Florida Public Service Commission and is subject to Commission approval. Such increase or decrease shall be adjusted for taxes which are based upon revenues. The procedure for the review, approval, recovery and recording of such costs and revenues is set forth in Commission Rule 25-17.015, F.A.C.

Energy Conservation Cost Recovery Clause factors are shown below:

<u>Rate Schedule</u>	<u>Energy Conservation Cost Recovery Factor</u>
RS	0.060¢/kWh
RSVP Tier 1	(2.800)¢/kWh
RSVP Tier 2	(0.840)¢/kWh
RSVP Tier 3	6.735¢/kWh
RSVP Tier 4	50.918¢/kWh
RSTOU On-Peak	14.000¢/kWh
RSTOU Off-Peak	(2.686)¢/kWh
RSTOU Critical Peak Credit	\$5.00 per Event
GS	0.060¢/kWh
GSD, GSDT, GSTOU	0.056¢/kWh
LP, LPT	0.053¢/kWh
CL Credit	(\$5.57) per kW
PX, PXT, RTP, SBS	0.052¢/kWh
OS-I/II	0.041¢/kWh
OS-III	0.052¢/kWh

Service under this rate schedule is subject to Rules and Regulations of the Company and the Florida Public Service Commission.

ISSUED BY: Tiffany Cohen



Gulf Power®

Section No. VI
Eleventh Revised Sheet No. 6.49
Canceling Tenth Revised Sheet No. 6.49

RATE SCHEDULE LPT LARGE POWER SERVICE – TIME-OF-USE CONSERVATION (OPTIONAL SCHEDULE)

URSC: GSLDT

PAGE	EFFECTIVE DATE
1 of 5	

AVAILABILITY:

Available on a first come - first serve basis subject to meter availability throughout the entire territory served by the transmission system of the Company.

APPLICABILITY:

Applicable as an option to Rate Schedule LP for three phase general service on an annual basis covering the entire electrical requirements of any Customer. Service to two or more premises shall not be combined nor shall service furnished hereunder be shared with or resold to others. All service shall be taken at the same voltage, from a single delivery point, and shall be measured by a single meter.

CHARACTER OF SERVICE:

The delivery voltage to the Customer shall be the voltage of the available secondary distribution lines of the Company for the locality in which service is to be rendered.

MONTHLY RATES:

Base Charge: \$262.80

Demand Charge: \$2.51 per kW of maximum demand plus;
\$9.87 per kW of on-peak demand

Energy Charge: 0.926¢ per kWh

ISSUED BY: Tiffany Cohen



Section No. VI
Ninth Revised Sheet No. 6.50
Canceling Eighth Revised Sheet No. 6.50

PAGE	EFFECTIVE DATE
2 of 5	

(Continued from Rate Schedule LPT, Sheet No. 6.49)

MINIMUM MONTHLY BILLS:

In consideration of the readiness of the Company to furnish such service, no monthly bill shall be rendered for less than the Base Charge plus the Demand Charge.

DETERMINATION OF THE ON-PEAK PERIOD:

The on-peak period for calendar months April through October is defined as being those hours between 12:00 p.m. and 9:00 p.m. Central Daylight Time/Central Standard Time, Monday through Friday.

The on-peak period for calendar months November through March is defined as being those hours between 6:00 a.m. and 10:00 a.m. and between 6:00 p.m. and 10:00 p.m. Central Standard Time/Central Daylight Time, Monday through Friday.

DETERMINATION OF THE OFF-PEAK PERIOD:

All hours not included above and all hours of the observed holidays of New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas are in the off-peak period.

ISSUED BY: Tiffany Cohen



Section No. VI
Ninth Revised Sheet No. 6.51
Canceling Eighth Revised Sheet No. 6.51

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(Continued from Rate Schedule LPT, Sheet No. 6.50)

DETERMINATION OF BILLING DEMAND:

- (a) Maximum Demand--The kilowatt (kW) billing demand for billing purposes shall be the Customer's maximum integrated 15 minute demand to the nearest kilowatt (kW) during each service month.
- (b) On-Peak Demand--The kilowatt (kW) billing demand for billing purposes shall be the Customer's maximum integrated 15 minute demand to the nearest kilowatt (kW) during each service month as measured during the hours designated as on-peak.

REACTIVE DEMAND CHARGE:

The monthly bill calculated at the above rates may be increased in the amount of \$1.00 per kvar for all over 0.48432 kilovars per kilowatt (90% power factor). The kilovars to which this adjustment shall apply shall be the monthly maximum measured kilovar demand or may be calculated as the square root of the difference between the square of the maximum monthly measured kVA demand and the square of the maximum monthly measured kW demand.

TRANSFORMER OWNERSHIP DISCOUNT AND PRIMARY METERING VOLTAGE DISCOUNTS:

When the Company renders service under this Rate Schedule at the local primary distribution voltage and any transformers required are furnished by the Customer, the Monthly Rate will be subject to a discount of thirty-six (36) cents per month per kilowatt (kW) of the Customer's highest billing demand as determined above, and an additional discount of one percent (1%) of the Energy Charge and one percent (1%) of the Demand Charge; however, such deduction shall not reduce the minimum monthly bill specified above.

ISSUED BY: Tiffany Cohen



Section No. VI
Ninth Revised Sheet No. 6.52
Canceling Eighth Revised Sheet No. 6.52

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(Continued from Rate Schedule LPT, Sheet No. 6.51)

TRANSFORMER OWNERSHIP DISCOUNT AND TRANSMISSION METERING VOLTAGE DISCOUNTS:

When the Company renders service under this Rate Schedule from an available transmission line of 46,000 volts or higher and the Customer furnishes, operates, and maintains the complete step-down transformer substation necessary to receive and use such service, the Monthly Rate will be subject to a discount of fifty-five (55) cents per month per kilowatt (kW) of the Customer's highest billing demand as determined above, and an additional discount of two percent (2%) of the Energy Charge and two percent (2%) of the Demand Charge; however, such deduction shall not reduce the minimum monthly bill specified above.

DEPOSIT:

A deposit amounting to twice the estimated average monthly bill may be required before service is connected at designated premises. The deposit may be applied to any final bills against the Customer for service.

TERM OF CONTRACT:

- (1) Service under this Schedule shall be for a period of not less than one year and thereafter from year to year until terminated by three (3) months' written notice by either party to the other.
- (2) The initial selection of this rate schedule as an option by a Rate Schedule LP Customer may be terminated at any time by written or personal notice from the Customer. After such termination, any subsequent selection of this option by the same Customer for service at the same premises shall have a term of contract as specified in (1) above.

ISSUED BY: Tiffany Cohen



Gulf Power®

RATE SCHEDULE ECC COST RECOVERY CLAUSE ENERGY CONSERVATION

Section No. VI
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1 of 1

EFFECTIVE DATE
January 1, 2020

APPLICABILITY:

Applicable to the monthly rate of each filed retail rate schedule under which a Customer receives service.

DETERMINATION OF ENERGY CONSERVATION COST RECOVERY CLAUSE ADJUSTMENT:

Bills should be decreased or increased by an adjustment calculated in accordance with the formula and procedure specified by the Florida Public Service Commission designed to reflect the recovery of conservation related expenditures by the Company.

Each rate schedule shall be increased or decreased to the nearest .001 cents for each kWh of sales to reflect the recovery of conservation related expenditures by the Company. The Company shall record both projected and actual expenses and revenues associated with the implementation of the Company's Energy Conservation Plan as authorized by the Commission. The total cost recovery adjustment per kWh applicable to energy delivered will include, when applicable, a true-up with interest to prior actual costs which will be determined in accordance with the formula and procedures specified by the Florida Public Service Commission and is subject to Commission approval. Such increase or decrease shall be adjusted for taxes which are based upon revenues. The procedure for the review, approval, recovery and recording of such costs and revenues is set forth in Commission Rule 25-17.015, F.A.C.

Energy Conservation Cost Recovery Clause factors are shown below:

<u>Rate Schedule</u>	<u>Energy Conservation Cost</u>
	<u>Recovery Factor</u>
RS	0.060¢/kWh
RSVP Tier 1	(2.800)¢/kWh
RSVP Tier 2	(0.840)¢/kWh
RSVP Tier 3	6.735¢/kWh
RSVP Tier 4	50.918¢/kWh
RSTOU On-Peak	14.000¢/kWh
RSTOU Off-Peak	(2.686)¢/kWh
RSTOU Critical Peak Credit	\$5.00 per Event
GS	0.060¢/kWh
GSD, GSDT, GSTOU	0.056¢/kWh
LP, LPT	0.053¢/kWh
<u>LPT-CPO On-Peak</u>	<u>(\$4.89) per kW</u>
<u>LPT-CPO Critical</u>	<u>\$58.68 per kW</u>
CL Credit	(\$5.57) per kW
PX, PXT, RTP, SBS	0.052¢/kWh
OS-I/II	0.041¢/kWh
OS-III	0.052¢/kWh

Service under this rate schedule is subject to Rules and Regulations of the Company and the Florida Public Service Commission.

ISSUED BY: Charles S. BoyettTiffany Cohen



Section No. VI
~~Tenth~~^{Eleventh} Revised Sheet No. 6.49
Canceling ~~Ninth~~^{Tenth} Revised Sheet No. 6.49

RATE SCHEDULE LPT LARGE POWER SERVICE – TIME-OF-USE CONSERVATION (OPTIONAL SCHEDULE)

URSC: GSLDT

PAGE 1 of 5	EFFECTIVE DATE March 29, 2019
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AVAILABILITY:

Available on a first come - first serve basis subject to meter availability throughout the entire territory served by the transmission system of the Company.

APPLICABILITY:

Applicable as an option to Rate Schedule LP for three phase general service on an annual basis covering the entire electrical requirements of any Customer. Service to two or more premises shall not be combined nor shall service furnished hereunder be shared with or resold to others. All service shall be taken at the same voltage, from a single delivery point, and shall be measured by a single meter. ~~Customers taking service under Rate LPT may elect the critical peak option.~~

CHARACTER OF SERVICE:

The delivery voltage to the Customer shall be the voltage of the available secondary distribution lines of the Company for the locality in which service is to be rendered.

MONTHLY RATES:

Base Charge:	\$262.80
Demand Charge:	\$2.51 per kW of maximum demand plus; \$9.87 per kW of on-peak demand
Energy Charge:	0.926¢ per kWh

ISSUED BY: ~~Charles S. Boyett~~^{Tiffany Cohen}



Gulf Power®

Section No. VI

~~Eighth~~~~Ninth~~ Revised Sheet No. 6.50

Canceling ~~Seventh~~~~Eighth~~ Revised Sheet No. 6.50

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(Continued from Rate Schedule LPT, Sheet No. 6.49)

~~CRITICAL PEAK OPTION (CPO) Under this option, the Demand Charge shall be:~~

~~Demand Charge: \$2.51 per kW of maximum demand plus;
\$9.87 per kW of on-peak demand~~

MINIMUM MONTHLY BILLS:

In consideration of the readiness of the Company to furnish such service, no monthly bill shall be rendered for less than the Base Charge plus the Demand Charge.

DETERMINATION OF THE ON-PEAK PERIOD:

The on-peak period for calendar months April through October is defined as being those hours between 12:00 p.m. and 9:00 p.m. Central Daylight Time/Central Standard Time, Monday through Friday.

The on-peak period for calendar months November through March is defined as being those hours between 6:00 a.m. and 10:00 a.m. and between 6:00 p.m. and 10:00 p.m. Central Standard Time/Central Daylight Time, Monday through Friday.

DETERMINATION OF THE OFF-PEAK PERIOD:

All hours not included above and all hours of the observed holidays of New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas are in the off-peak period.

DETERMINATION OF CRITICAL PEAK PERIOD:

A critical peak period may be designated at any time at the Company's discretion. Conditions which may result in the designation of a critical peak period by the Company include, but are not limited to: (i) A temperature forecast for the Company's service area that is above 95°F or below 32°F; (ii) Real-Time Prices that exceed certain thresholds; (iii) Projections of system peak loads that exceed certain thresholds.

ISSUED BY: Charles S. BoyettTiffany Cohen



Section No. VI
~~Eighth~~Ninth Revised Sheet No. 6.51
Canceling ~~Seventh~~Eighth Revised Sheet No. 6.51

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(Continued from Rate Schedule LPT, Sheet No. 6.50)

DETERMINATION OF BILLING DEMAND:

- (a) Maximum Demand--The kilowatt (kW) billing demand for billing purposes shall be the Customer's maximum integrated 15 minute demand to the nearest kilowatt (kW) during each service month.
- (b) On-Peak Demand--The kilowatt (kW) billing demand for billing purposes shall be the Customer's maximum integrated 15 minute demand to the nearest kilowatt (kW) during each service month as measured during the hours designated as on-peak.
- (c) ~~Critical Peak Demand -- The kilowatt (kW) billing demand for billing purposes shall be the Customer's maximum integrated 15 minute demand to the nearest kilowatt (kW) during each service month as measured during the hours designated as critical peak.~~

REACTIVE DEMAND CHARGE:

The monthly bill calculated at the above rates may be increased in the amount of \$1.00 per kvar for all over 0.48432 kilovars per kilowatt (90% power factor). The kilovars to which this adjustment shall apply shall be the monthly maximum measured kilovar demand or may be calculated as the square root of the difference between the square of the maximum monthly measured kVA demand and the square of the maximum monthly measured kW demand.

TRANSFORMER OWNERSHIP DISCOUNT AND PRIMARY METERING VOLTAGE DISCOUNTS:

When the Company renders service under this Rate Schedule at the local primary distribution voltage and any transformers required are furnished by the Customer, the Monthly Rate will be subject to a discount of thirty-six (36) cents per month per kilowatt (kW) of the Customer's highest billing demand as determined above, and an additional discount of one percent (1%) of the Energy Charge and one percent (1%) of the Demand Charge; however, such deduction shall not reduce the minimum monthly bill specified above.



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Canceling ~~Seventh~~Eighth Revised Sheet No. 6.52

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(Continued from Rate Schedule LPT, Sheet No. 6.51)

TRANSFORMER OWNERSHIP DISCOUNT AND TRANSMISSION METERING VOLTAGE DISCOUNTS:

When the Company renders service under this Rate Schedule from an available transmission line of 46,000 volts or higher and the Customer furnishes, operates, and maintains the complete step-down transformer substation necessary to receive and use such service, the Monthly Rate will be subject to a discount of fifty-five (55) cents per month per kilowatt (kW) of the Customer's highest billing demand as determined above, and an additional discount of two percent (2%) of the Energy Charge and two percent (2%) of the Demand Charge; however, such deduction shall not reduce the minimum monthly bill specified above.

DEPOSIT:

A deposit amounting to twice the estimated average monthly bill may be required before service is connected at designated premises. The deposit may be applied to any final bills against the Customer for service.

CRITICAL PEAK DEMAND NOTIFICATION

~~A customer electing the critical peak option will be notified of a critical peak period one hour prior to the beginning of the critical peak period event. The Company is not responsible for a customer's failure to receive and act upon the critical peak period. If a customer does not receive these notifications, it is the customer's responsibility to inform the Company so the notifications may be supplied.~~

TERM OF CONTRACT:

- (1) Service under this Schedule shall be for a period of not less than one year and thereafter from year to year until terminated by three (3) months' written notice by either party to the other.
- (2) The initial selection of this rate schedule as an option by a Rate Schedule LP Customer may be terminated at any time by written or personal notice from the Customer. After such termination, any subsequent selection of this option by the same Customer for service at the same premises shall have a term of contract as specified in (1) above.

ISSUED BY: ~~Charles S. Boyett~~Tiffany Cohen