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ORIGINAL

November 16, 2004

HAND DELIVERED

Ms. Blanca S. Bayo, Director
Division of Commission Clerk
and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

NOV 16 PM 2:49
COMMISSION
CLERK
JEWELL FPSC

Re: Adoption of Numeric Conservation Goals by Tampa Electric Company
FPSC Docket No. 040033-EG


Dear Ms. Bayo:

Pursuant to Order No. PSC-04-0765-PAA-EG issued August 9, 2004, we enclose for filing fifteen (15) copies of Tampa Electric Company's Ten-Year DSM Plan 2005-2014.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning same to this writer.

Thank you for your assistance in connection with this matter.

Sincerely,


James D. Beasley

- CMP _____
- COM _____
- CTR _____
- ECR Hay _____
- GCL _____
- OPC _____
- MMS _____
- RCA _____
- SCR _____
- SEC 1 _____
- OTH Hay _____

JDB/pp
Enclosure

cc: All Parties of Record (w/enc.)

RECEIVED & FILED
Hay
FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE
12220 NOV 16 04
FPSC-COMMISSION CLERK

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing Ten-Year DSM Plan, filed on behalf of Tampa Electric Company, has been furnished by U. S. Mail or hand delivery (*) on this 16th day of November 2004 to the following:

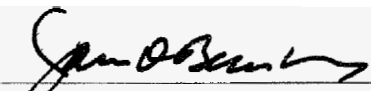
Ms. Adrienne Vining*
Office of the General Counsel
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

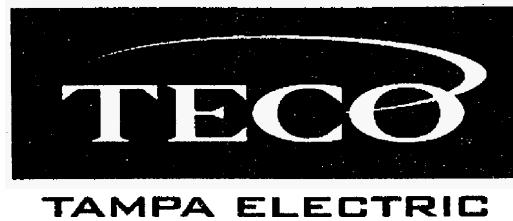
Executive Office of the Governor
Office of Planning and Budget
General Government Unit
The Capitol, Room 1502
Tallahassee, FL 32399-0001

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ATTORNEY



Tampa Electric Company

Docket No. 040033-EG

**Ten-Year DSM Plan
2005-2014**

November 16, 2004

DOCUMENT NUMBER-DATE
12220 NOV 16 3
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Tampa Electric's Ten-Year DSM Plan 2005-2014

In Docket No. 040033-EG, Order No. PSC-04-0765-PAA-EG, dated August 9, 2004, the Florida Public Service Commission ("FPSC") approved Tampa Electric's ten-year demand side management ("DSM") goals for the period 2005-2014. Pursuant to Rule 25-17.0021, Florida Administrative Code ("F.A.C."), Tampa Electric is filing this ten-year DSM plan consisting of various programs designed to meet the numeric conservation goals established by the Commission for the company.

Tampa Electric's approach to plan development consisted of the following:

1. a comprehensive review of current programs;
2. modifying appropriate programs to incorporate measures with market potential that were identified through the goals development process;
3. examining research and development ("R & D") efforts for measure applications that have reached commercial applicability in the marketplace;
4. identifying and evaluating a new type of residential load management, price responsive load management ("PRLM"), through a pilot program to study its feasibility;
5. maintaining the current residential load management program during the PRLM pilot program;
6. identifying a comprehensive approach to continued R & D in both the residential and commercial sectors; and
7. maintaining an active presence with current and future cogeneration opportunities in the company's service area.

Tampa Electric urges the Commission to adopt this plan as the appropriate action to be taken by the company to meet the DSM goals established for the 2005-2014 period.

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Residential Market Sector Demand and Energy Data

Year	Projected Summer Demand Savings (MW)		Commission Approved Summer MW Goal (Cum.)	Projected Winter Demand Savings (MW)		Commission Approved Winter MW Goal (Cum.)	Projected Annual Energy Savings (GWH)		Commission Approved Annual GWH Goal (Cum.)
	Incr.	Cum.		Incr.	Cum.		Incr.	Cum.	
2005	3.0	3.0	2.4	5.1	5.1	4.0	8.6	8.6	7.0
2006	2.1	5.1	4.4	2.9	8.0	6.7	6.2	14.8	12.6
2007	1.9	7.0	6.2	2.6	10.5	9.1	5.6	20.4	17.9
2008	1.7	8.7	7.9	2.3	12.8	11.4	5.1	25.5	22.7
2009	1.5	10.2	9.5	2.0	14.9	13.4	4.6	30.1	27.2
2010	1.3	11.5	10.9	1.7	16.6	15.2	3.9	34.0	31.2
2011	1.1	12.6	12.2	1.5	18.0	16.7	3.4	37.4	34.9
2012	1.0	13.7	13.3	1.2	19.3	18.1	3.0	40.5	38.2
2013	0.9	14.6	14.3	1.1	20.3	19.2	2.7	43.1	41.0
2014	0.8	15.4	15.2	0.9	21.2	20.1	2.3	45.5	43.5

Commercial / Industrial Market Sector Demand and Energy Data

Year	Projected Summer Demand Savings (MW)		Commission Approved Summer MW Goal (Cum.)	Projected Winter Demand Savings (MW)		Commission Approved Winter MW Goal (Cum.)	Projected Annual Energy Savings (GWH)		Commission Approved Annual GWH Goal (Cum.)
	Incr.	Cum.		Incr.	Cum.		Incr.	Cum.	
2005	2.3	2.3	2.1	1.1	1.1	1.0	7.2	7.2	6.7
2006	2.1	4.4	4.4	1.0	2.1	2.0	6.7	13.9	12.8
2007	2.0	6.4	6.0	1.0	3.1	2.9	6.1	20.0	18.4
2008	1.9	8.2	7.7			3.8	5.5	25.5	23.4
2009	1.7	9.9	9.3	0.9	4.9	4.7	5.0	30.5	27.8
2010	1.5	11.4	10.7	0.8	5.7	5.5	3.9	34.4	31.7
2011	1.3	12.7	12.1	0.8	6.4	6.2	3.3	37.7	35.0
2012	1.2	13.9	13.3	0.7	7.2	6.9	2.7	40.4	37.7
2013	1.1	15.0	14.3	0.7	7.8	7.6	2.2	42.6	39.9
2014	0.9	15.9	15.3	0.6	8.4	8.2	1.6	44.2	41.5

Program: Residential Walk-Through Audit (Free)

Program Start Date: May 1981

Program Description

A conservation program adopted by Florida under Chapter 366.82 (5) Florida Statutes and Rule 25-17.003 F.A.C. This program is offered to all residential customers and is designed to save demand and energy by increasing customer awareness of energy use in personal residences. Savings are dependent on the customer implementing energy saving recommendations. Recommendations are the same as the Computer-Assisted Audit but are standardized and include an estimated range of savings.

In an effort to encourage low income customer participation in conservation programs, Tampa Electric will accept the National Energy Audit Tool ("NEAT") audit (which identifies conservation measures along with cost estimates and paybacks) that is provided by weatherization agencies in our service area. The NEAT audit will be in lieu of an audit performed by Tampa Electric. For each NEAT audit completed, Tampa Electric will provide \$35.00 to the provider agency to further promote the installation of conservation measures (weatherstripping, caulking, water heater wraps, etc.) and to strengthen the partnership between the company and weatherization agencies throughout the service area.

The audit is conducted by a trained analyst who notes only those recommendations which apply to the residence.

Audits are kept on file with the company for three years. There is no charge to the customer for the Walk-Through Audit.

Program Participation Standards

1. Any residential customer in Tampa Electric's service area is eligible.
2. Program requirements for participation follow guidelines set by Rule 25-17.003, F.A.C.
3. There is no payment processing for conservation measures with this program.
4. There are no technical specifications on equipment eligibility with this program.
5. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

The kWh billing histories of customers who received these audits were examined in comparison to those of matched un-audited customers. Customers included in the analysis did not participate in any other DSM programs. Consumption before and after the audit was compared for both sets of customers to estimate the impact associated with the audit. Based on load research data, the consumption impacts were extrapolated into corresponding demand impacts.

Using this methodology, the savings per participant are as follows:

Demand: 0.04 kW winter
 0.03 kW summer

Energy: 137 kWh annual

Based on historical costs, the cost per audit is estimated to be \$115.00.

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: RESIDENTIAL WALK-THROUGH AUDIT

	(a)	(b)	(c)	(d)	(e)
Year	Total Number of Customers	Total Number of Eligible Customers	Annual Number of Program Participants	Cumulative Penetration Level %	Cumulative Number of Program Participants*
2005	558,217	558,217	8,500	1.5%	8,500
2006	571,386	571,386	8,100	2.9%	16,600
2007	583,878	583,878	7,700	4.2%	24,300
2008	596,472	596,472	7,300	5.3%	31,600
2009	610,379	610,379	6,900	6.3%	38,500
2010	625,351	625,351	6,500	7.2%	45,000
2011	640,734	640,734	6,100	8.0%	51,100
2012	656,186	656,186	5,700	8.7%	56,800
2013	669,200	669,200	5,300	9.3%	62,100
2014	682,426	682,426	4,900	9.8%	67,000

* Previous participation levels not included.

PROGRAM NAME: RESIDENTIAL WALK-THROUGH AUDIT

AT THE METER						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	137	0.040	0.030	1.165	0.340	0.255
2006	137	0.040	0.030	2.274	0.664	0.498
2007	137	0.040	0.030	3.329	0.972	0.729
2008	137	0.040	0.030	4.329	1.264	0.948
2009	137	0.040	0.030	5.275	1.540	1.155
2010	137	0.040	0.030	6.165	1.800	1.350
2011	137	0.040	0.030	7.001	2.044	1.533
2012	137	0.040	0.030	7.782	2.272	1.704
2013	137	0.040	0.030	8.508	2.484	1.863
2014	137	0.040	0.030	9.179	2.680	2.010

PROGRAM NAME: RESIDENTIAL WALK-THROUGH AUDIT

AT THE GENERATOR						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	145	0.043	0.032	1.234	0.362	0.272
2006	145	0.043	0.032	2.411	0.708	0.531
2007	145	0.043	0.032	3.529	1.036	0.777
2008	145	0.043	0.032	4.589	1.347	1.011
2009	145	0.043	0.032	5.591	1.642	1.231
2010	145	0.043	0.032	6.535	1.919	1.439
2011	145	0.043	0.032	7.421	2.179	1.634
2012	145	0.043	0.032	8.248	2.422	1.816
2013	145	0.043	0.032	9.018	2.648	1.986
2014	145	0.043	0.032	9.730	2.857	2.143

2

Program: Residential Computer-Assisted Energy Audit

Program Start Date: January 1981

Program Description

A conservation program originally developed in response to the Energy Policy Act (1978) and adopted by Florida under Chapter 366.82 (5) Florida Statutes and Rule 25-17.003, F.A.C. The program is designed to save demand and energy and is offered to all residential customers. Savings are achieved by increasing customer awareness of the energy use in personal residences. Savings are dependent on customers implementing energy saving recommendations. The audit is performed by a trained analyst who collects specific data about the structure of the home and the customer's lifestyle. The following information is then provided on the applicable energy saving measures:

- Estimated cost for contractor installation
- Estimated cost for do-it-yourself installation
- Payback period for customer investment
- Estimated first year energy savings

Analysts note only those recommendations which apply to the individual residence.

Audit findings are kept on file with the utility for three years. The audit charge to the customer is \$15.00.

Program Participation Standards

1. Any residential customer in Tampa Electric's service area is eligible.
2. Program requirements for participation follow guidelines set by Rule 25-17.003, F.A.C.
3. The customer is charged \$15.00 for this audit.
4. There is no payment processing for conservation measures with this program.
5. There are no technical specifications on equipment eligibility with this program.
6. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Savings for the Computer-Assisted Audit are assumed to be the same as the Residential Walk-Through Audit. The savings per participant are as follows:

Demand: 0.04 kW winter
0.03 kW summer

Energy: 137 kWh annual

The estimated cost per audit is \$155.00. There are no rebates or incentives for this program.

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: RESIDENTIAL COMPUTER-ASSISTED AUDIT

	(a)	(b)	(c)	(d)	(e)
Year	Total Number of Customers	Total Number of Eligible Customers	Annual Number of Program Participants	Cumulative Penetration Level %	Cumulative Number of Program Participants*
2005	558,217	558,217	1	0.0%	1
2006	571,386	571,386	1	0.0%	2
2007	583,878	583,878	1	0.0%	3
2008	596,472	596,472	1	0.0%	4
2009	610,379	610,379	1	0.0%	5
2010	625,351	625,351	1	0.0%	6
2011	640,734	640,734	1	0.0%	7
2012	656,186	656,186	1	0.0%	8
2013	669,200	669,200	1	0.0%	9
2014	682,426	682,426	1	0.0%	10

* Previous participation levels not included.

Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	137	0.040	0.030	0.000	0.000	0.000
2006	137	0.040	0.030	0.000	0.000	0.000
2007	137	0.040	0.030	0.000	0.000	0.000
2008	137	0.040	0.030	0.001	0.000	0.000
2009	137	0.040	0.030	0.001	0.000	0.000
2010	137	0.040	0.030	0.001	0.000	0.000
2011	137	0.040	0.030	0.001	0.000	0.000
2012	137	0.040	0.030	0.001	0.000	0.000
2013	137	0.040	0.030	0.001	0.000	0.000
2014	137	0.040	0.030	0.001	0.000	0.000

PROGRAM NAME: RESIDENTIAL COMPUTER-ASSISTED AUDIT

Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	145	0.043	0.032	0.000	0.000	0.000
2006	145	0.043	0.032	0.000	0.000	0.000
2007	145	0.043	0.032	0.000	0.000	0.000
2008	145	0.043	0.032	0.001	0.000	0.000
2009	145	0.043	0.032	0.001	0.000	0.000
2010	145	0.043	0.032	0.001	0.000	0.000
2011	145	0.043	0.032	0.001	0.000	0.000
2012	145	0.043	0.032	0.001	0.000	0.000
2013	145	0.043	0.032	0.001	0.000	0.000
2014	145	0.043	0.032	0.001	0.000	0.000

Program: On-Line Residential Energy Audit

Program Start Date: June 2002

Program Description

A conservation program designed to save demand and energy by increasing customer awareness of energy use in personal residences. This program was approved administratively by the FPSC Staff on June 19, 2002 to complement and ultimately replace Tampa Electric's existing Mail-In Audit which is scheduled to end on December 31, 2004.

To access the audit, customers will go to Tampa Electric's internet site, under on-line audits, and automatically link to the audit. Customers will answer questions about their home and energy usage. Personalized audit results are then immediately displayed to customers for review and implementation. The audit recommendations are based on the customers' answers to the questions and their actual energy consumption. There is no charge to customers.

Program Participation Standards

1. Any residential customer in Tampa Electric's service area is eligible.
2. The Residential On-Line Audit will be offered to customers in response to a request for this service; however, the on-line audit will not be offered in lieu of or used as a prerequisite for on-site audits (Computer-Assisted or Walk-Through).
3. Upon completion of the audit, the customer's results are immediately displayed.
4. There is no payment processing with this program.
5. There are no technical specifications on equipment eligibility with this program.
6. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Energy and demand savings are estimated to be 25% less than the Residential Walk-Through Audit. Therefore, savings per participant are as follows:

Demand: 0.03 kW winter
0.02 kW summer

Energy: 103 kWh annual

Based on historical costs, the cost per audit is estimated at \$22.50. There are no rebates or incentives for this program.

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: RESIDENTIAL ON-LINE AUDIT

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2005	558,217	558,217	1,800	0.3%	1,800
2006	571,386	571,386	1,725	0.6%	3,525
2007	583,878	583,878	1,650	0.9%	5,175
2008	596,472	596,472	1,575	1.1%	6,750
2009	610,379	610,379	1,500	1.4%	8,250
2010	625,351	625,351	1,425	1.5%	9,675
2011	640,734	640,734	1,350	1.7%	11,025
2012	656,186	656,186	1,275	1.9%	12,300
2013	669,200	669,200	1,200	2.0%	13,500
2014	682,426	682,426	1,125	2.1%	14,625

* Previous participation levels not included.

PROGRAM NAME: RESIDENTIAL ON-LINE AUDIT

AT THE METER						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	103	0.030	0.020	0.185	0.054	0.036
2006	103	0.030	0.020	0.363	0.106	0.071
2007	103	0.030	0.020	0.533	0.155	0.104
2008	103	0.030	0.020	0.695	0.203	0.135
2009	103	0.030	0.020	0.850	0.248	0.165
2010	103	0.030	0.020	0.997	0.290	0.194
2011	103	0.030	0.020	1.136	0.331	0.221
2012	103	0.030	0.020	1.267	0.369	0.246
2013	103	0.030	0.020	1.391	0.405	0.270
2014	103	0.030	0.020	1.506	0.439	0.293

PROGRAM NAME: RESIDENTIAL ON-LINE AUDIT

AT THE GENERATOR						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	109	0.032	0.021	0.197	0.058	0.038
2006	109	0.032	0.021	0.385	0.113	0.075
2007	109	0.032	0.021	0.565	0.165	0.110
2008	109	0.032	0.021	0.737	0.216	0.144
2009	109	0.032	0.021	0.901	0.264	0.176
2010	109	0.032	0.021	1.056	0.309	0.206
2011	109	0.032	0.021	1.204	0.353	0.235
2012	109	0.032	0.021	1.343	0.393	0.262
2013	109	0.032	0.021	1.474	0.432	0.288
2014	109	0.032	0.021	1.597	0.468	0.312

Program: Residential Duct Repair

Program Start Date: September 1992

Program Description

A conservation incentive program designed to reduce demand and energy by decreasing the load on residential air conditioning and heating ("HVAC") equipment. This program eliminates or reduces areas of HVAC air distribution losses by sealing and repairing the air distribution system ("ADS"). The ADS is defined as the air handler, air ducts, return plenums, supply plenums and any connecting structure.

Customers call Tampa Electric to request appointments for duct repair and a HVAC contractor appointed by Tampa Electric will seal and repair all accessible components of the ADS in the residence. Tampa Electric's incentive is included in the payment to the participating contractor performing ADS repairs.

Program Participation Standards

1. ADS systems must be accessible for sealing and repair.
2. Residences must have a working central ducted HVAC system with electric heating or air conditioning. Residences with non-electric heating are eligible. Any safety issues will be identified prior to participation.
3. Tampa Electric will appoint a participating HVAC contractor to seal and repair existing problems.
4. A participating HVAC contractor must perform sealing and repairs.
5. Sealing and repairs to ADS will use mastic techniques (adhesive with fibers embedded or adhesive with fabric reinforced tape). Air handler panels/openings will be sealed with tape or other approved materials. If ducts are replaced, mastic must be used to seal all joints, connections and seams in the ADS.
6. The HVAC contractor submits a work order for completed sealing and repair to Tampa Electric.
7. Tampa Electric will randomly perform full field verifications on a minimum of 10% of the participating residences. Work orders not selected for field review will have an office verification to validate information.
8. No payment will be made until Tampa Electric verifies or validates work orders.

9. The contractor incentive payment will be a contracted charge for typical repairs to the ADS.
10. There are no technical specifications on equipment eligibility with this program.
11. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Historically, single-family central HVAC units with resistance heat and heat pumps comprise 32% and 68% participation, respectively. In addition, multi-family, central A/C with resistance heat and heat pumps comprise 69% and 31% of participation, respectively.

The analysis from the SRC data of ADS repair savings for the HVAC systems is as follows:

Single-family:

<u>Type System</u>	<u>Winter Demand (kW)</u>	<u>Summer Demand (kW)</u>	<u>Annual Energy (kWh)</u>
Central A/C with Strip	0.447	0.452	999
Central Heat Pump	0.369	0.453	991

Multi-family:

<u>Type System</u>	<u>Winter Demand (kW)</u>	<u>Summer Demand (kW)</u>	<u>Annual Energy (kWh)</u>
Central A/C with Strip	0.255	0.258	570
Central Heat Pump	0.211	0.259	566

By weighting these savings across the system types, the following reductions are rendered:

Single-family

Winter Demand:

Strip heat	(0.447) (0.32)	=	0.143
Heat Pump	(0.369) (0.68)	=	<u>0.251</u>
Average winter demand reduction		=	0.394 kW

Summer Demand:

Straight A/C (0.452) (0.32)	=	0.145
Heat Pump (0.453) (0.68)	=	<u>0.308</u>
Average summer demand reduction	=	0.453 kW

Multi-family

Winter Demand:

Strip heat (0.255) (0.69)	=	0.176
Heat Pump (0.211) (0.31)	=	<u>0.066</u>
Average winter demand reduction	=	0.242 kW

Summer Demand:

Straight A/C (0.258) (0.69)	=	0.178
Heat Pump (0.259) (0.31)	=	<u>0.081</u>
Average summer demand reduction	=	0.259 kW

Energy:

Single-Family

Straight A/C (999) (0.32)	=	320
Heat Pump (991) (0.68)	=	<u>674</u>
Average annual energy savings	=	994 kWh

Multi-family

Straight A/C (570) (0.69)	=	393
Heat Pump (566) (0.31)	=	<u>175</u>
Average annual energy savings	=	568 kWh

By weighting these savings across estimated participation the following reductions are rendered:

Winter Demand	=	0.35 kW
Summer Demand	=	0.40 kW
Annual Energy	=	872 kWh

Costs:

Incentive cost per participant:	\$170.00
Administrative cost per participant:	\$ 58.00
Customer cost:	\$ 79.00

Program Monitoring and Evaluation

Tampa Electric utilized the engineering estimates and computer modeling from the SRC study for the demand and energy savings of the program. Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: RESIDENTIAL DUCT REPAIR

	(a)	(b)	(c)	(d)	(e)
Year	Total Number of Customers	Total Number of Eligible Customers	Annual Number of Program Participants	Cumulative Penetration Level %	Cumulative Number of Program Participants*
2005	558,217	432,568	3,000	0.7%	3,000
2006	571,386	429,568	2,700	1.3%	5,700
2007	583,878	423,868	2,400	1.9%	8,100
2008	596,472	415,768	2,100	2.5%	10,200
2009	610,379	405,568	1,900	3.0%	12,100
2010	625,351	393,468	1,600	3.5%	13,700
2011	640,734	379,768	1,500	4.0%	15,200
2012	656,186	364,568	1,450	4.6%	16,650
2013	669,200	347,918	1,400	5.2%	18,050
2014	682,426	329,868	1,350	5.9%	19,400

* Previous participation levels not included.

PROGRAM NAME: RESIDENTIAL DUCT REPAIR

Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	872	0.350	0.400	2.616	1.050	1.200
2006	872	0.350	0.400	4.970	1.995	2.280
2007	872	0.350	0.400	7.063	2.835	3.240
2008	872	0.350	0.400	8.894	3.570	4.080
2009	872	0.350	0.400	10.551	4.235	4.840
2010	872	0.350	0.400	11.946	4.795	5.480
2011	872	0.350	0.400	13.254	5.320	6.080
2012	872	0.350	0.400	14.519	5.828	6.660
2013	872	0.350	0.400	15.740	6.318	7.220
2014	872	0.350	0.400	16.917	6.790	7.760

PROGRAM NAME: RESIDENTIAL DUCT REPAIR

Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	924	0.373	0.426	2.773	1.119	1.279
2006	924	0.373	0.426	5.269	2.127	2.430
2007	924	0.373	0.426	7.487	3.022	3.454
2008	924	0.373	0.426	9.428	3.806	4.349
2009	924	0.373	0.426	11.184	4.515	5.159
2010	924	0.373	0.426	12.663	5.111	5.842
2011	924	0.373	0.426	14.050	5.671	6.481
2012	924	0.373	0.426	15.390	6.212	7.100
2013	924	0.373	0.426	16.684	6.734	7.697
2014	924	0.373	0.426	17.932	7.238	8.272

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PROGRAM TITLE: Duct Repair

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PROGRAM DEMAND SAVINGS & LINE LOSSES

I. (1) CUSTOMER KW REDUCTION AT THE METER	0.4 KW /CUST
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	0.433 KW GEN/CUST
I. (3) KW LINE LOSS PERCENTAGE	6.6 %
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	928 KWH/CUST/YR
I. (5) KWH LINE LOSS PERCENTAGE	6.0 %
I. (6) GROUP LINE LOSS MULTIPLIER	1
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR
I. (8)* CUSTOMER KWH REDUCTION AT METER	872 KWH/CUST/YR

ECONOMIC LIFE & K FACTORS

II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	20 YEARS
II. (2) GENERATOR ECONOMIC LIFE	26 YEARS
II. (3) T & D ECONOMIC LIFE	26 YEARS
II. (4) K FACTOR FOR GENERATION	1.6926
II. (5) K FACTOR FOR T & D	1.6926
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1

UTILITY & CUSTOMER COSTS

III. (1) UTILITY NONRECURRING COST PER CUSTOMER	58.00 \$/CUST
III. (2) UTILITY RECURRING COST PER CUSTOMER	0.00 \$/CUST/YR
III. (3) UTILITY COST ESCALATION RATE	2.5 %
III. (4) CUSTOMER EQUIPMENT COST	79.00 \$/CUST
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	2.5 %
III. (6) CUSTOMER O & M COST	0 \$/CUST/YR
III. (7) CUSTOMER O & M ESCALATION RATE	2.5 %
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	0 %
III. (10)* INCREASED SUPPLY COSTS	0 \$/CUST/YR
III. (11)* SUPPLY COSTS ESCALATION RATE	0 %
III. (12)* UTILITY DISCOUNT RATE	0.0939
III. (13)* UTILITY AFUDC RATE	0.0779
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	170.00 \$/CUST
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	0.00 \$/CUST/YR
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0 %

AVOIDED GENERATOR, TRANS. & DIST COSTS

IV. (1) BASE YEAR	2005
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2008
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D	2008
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST	230.18 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST	0 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3 %
IV. (8) GENERATOR FIXED O & M COST	2.544 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE	2.5 %
IV. (10) TRANSMISSION FIXED O & M COST	0 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST	0 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE	2.5 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.8135 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.5 %
IV. (15) GENERATOR CAPACITY FACTOR	5.5 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST	6.27 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE	1.43 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW	0 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE	0 %

NON-FUEL ENERGY AND DEMAND CHARGES

V. (1) NON-FUEL COST IN CUSTOMER BILL	4.342 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE	1 %
V. (3) CUSTOMER DEMAND CHARGE PER KW	0.00 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE	1 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1

CALCULATED BENEFITS AND COSTS	
(1)* TRC TEST - BENEFIT/COST RATIO	4.79
(2)* PARTICIPANT NET BENEFITS (NPV)	5,467
(3)* RIM TEST - BENEFIT/COST RATIO	1.12

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TOTAL RESOURCE COST TESTS
PROGRAM: Duct Repair

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2005	0	174	237	0	411	0	0	49	0	49	(362)	(362)
2006	0	161	219	0	379	0	0	154	0	154	(225)	(568)
2007	0	146	199	0	345	0	0	268	0	268	(78)	(633)
2008	0	0	0	0	0	254	0	312	0	566	566	(200)
2009	0	0	0	0	0	259	0	280	0	539	539	176
2010	0	0	0	0	0	264	0	375	0	639	639	584
2011	0	0	0	0	0	269	0	398	0	667	667	973
2012	0	0	0	0	0	274	0	400	0	674	674	1,333
2013	0	0	0	0	0	280	0	359	0	639	639	1,645
2014	0	0	0	0	0	285	0	376	0	661	661	1,939
2015	0	0	0	0	0	291	0	378	0	669	669	2,212
2016	0	0	0	0	0	296	0	404	0	700	700	2,473
2017	0	0	0	0	0	302	0	392	0	694	694	2,709
2018	0	0	0	0	0	308	0	390	0	698	698	2,927
2019	0	0	0	0	0	314	0	372	0	687	687	3,122
2020	0	0	0	0	0	320	0	420	0	741	741	3,315
2021	0	0	0	0	0	327	0	448	0	775	775	3,499
2022	0	0	0	0	0	333	0	446	0	779	779	3,669
2023	0	0	0	0	0	340	0	429	0	769	769	3,822
2024	0	0	0	0	0	346	0	450	0	796	796	3,966
NOMINAL	0	481	655	0	1,136	5,063	0	7,101	0	12,164	11,028	
NPV:	0	443	603	0	1,046	1,992	0	3,021	0	5,013	3,966	
Discount Rate		0.0939	Benefit/Cost Ratio - [col (11)/col (6)]:				4.79					

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PARTICIPANT COSTS AND BENEFITS
PROGRAM: Duct Repair

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILL \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O & M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2005	94	0	510	0	604	237	0	0	237	367	367
2006	282	0	459	0	741	219	0	0	219	523	845
2007	459	0	408	0	867	199	0	0	199	668	1,403
2008	546	0	0	0	546	0	0	0	0	546	1,820
2009	530	0	0	0	530	0	0	0	0	530	2,191
2010	586	0	0	0	586	0	0	0	0	586	2,564
2011	600	0	0	0	600	0	0	0	0	600	2,915
2012	598	0	0	0	598	0	0	0	0	598	3,234
2013	554	0	0	0	554	0	0	0	0	554	3,504
2014	579	0	0	0	579	0	0	0	0	579	3,762
2015	567	0	0	0	567	0	0	0	0	567	3,993
2016	590	0	0	0	590	0	0	0	0	590	4,213
2017	593	0	0	0	593	0	0	0	0	593	4,415
2018	599	0	0	0	599	0	0	0	0	599	4,601
2019	582	0	0	0	582	0	0	0	0	582	4,767
2020	622	0	0	0	622	0	0	0	0	622	4,929
2021	642	0	0	0	642	0	0	0	0	642	5,082
2022	646	0	0	0	646	0	0	0	0	646	5,222
2023	635	0	0	0	635	0	0	0	0	635	5,348
2024	653	0	0	0	653	0	0	0	0	653	5,467
NOMINAL	10,957	0	1,377	0	12,334	655	0	0	655	11,680	
NPV:	4,800	0	1,271	0	6,070	603	0	0	603	5,467	
In service year of gen unit:			2004								
Discount rate:			0.0939								

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RATE IMPACT TEST
 PROGRAM: Duct Repair

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT UNIT & FUEL BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS TO ALL CUSTOMERS \$(000)	CUMULATIVE DISCOUNTED NET BENEFIT \$(000)
2005	0	174	510	57	0	741	49	0	0	0	49	(692)	(692)
2006	0	161	459	166	0	786	154	0	0	0	154	(631)	(1269)
2007	0	146	408	267	0	821	268	0	0	0	268	(553)	(1731)
2008	0	0	0	316	0	316	566	0	0	0	566	250	(1540)
2009	0	0	0	319	0	319	539	0	0	0	539	219	(1387)
2010	0	0	0	322	0	322	639	0	0	0	639	317	(1185)
2011	0	0	0	326	0	326	667	0	0	0	667	342	(986)
2012	0	0	0	329	0	329	674	0	0	0	674	345	(801)
2013	0	0	0	332	0	332	639	0	0	0	639	307	(652)
2014	0	0	0	335	0	335	661	0	0	0	661	326	(506)
2015	0	0	0	339	0	339	669	0	0	0	669	330	(372)
2016	0	0	0	342	0	342	700	0	0	0	700	358	(238)
2017	0	0	0	346	0	346	694	0	0	0	694	349	(120)
2018	0	0	0	349	0	349	698	0	0	0	698	349	(11)
2019	0	0	0	353	0	353	687	0	0	0	687	334	84
2020	0	0	0	356	0	356	741	0	0	0	741	384	184
2021	0	0	0	360	0	360	775	0	0	0	775	415	283
2022	0	0	0	363	0	363	779	0	0	0	779	416	373
2023	0	0	0	367	0	367	769	0	0	0	769	402	453
2024	0	0	0	371	0	371	796	0	0	0	796	426	531
NOMINAL	0	481	1,377	6,313	0	8,171	12,164	0	0	0	12,164	3,993	
NPV:	0	443	1,271	2,768	0	4,482	5,013	0	0	0	5,013	531	
Discount rate:			0.0939				Benefit/Cost Ratio - [col (12)/col (7)]:				1.12		

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Program: Residential New Construction Program

Program Start Date: July 2000

Program Description

Residential New Construction is a conservation program designed to reduce the growth of peak demand and energy in the residential new construction market through the installation of high efficiency equipment and building envelope options. The program utilizes incentives to encourage the construction of new homes to be above the minimum energy efficiency levels required in the State of Florida Energy Efficiency Code for New Construction. This will be achieved through the actions listed below.

1. The certification of new home construction that meets or exceeds the standards used in the Environmental Protection Agency's Energy Star Program.
2. Promoting the construction and purchase of energy efficient housing by educating builders (for profit and not-for-profit), trade groups, architects, realtors, lenders and home buyers in a manner designed to transform the residential new construction market by influencing decisions toward energy efficiency in building techniques and practices.
3. Placing an emphasis on securing participation by affordable housing builders and buyers through educational efforts, coordinated through affordable housing financiers and affordable housing builders.
4. Encouraging the use of environmentally friendly building techniques.

Program Participation Standards

1. Incentives for qualifying levels will be offered to the home buyer for the following installations:

<u>Level</u>	<u>Incentive</u>	<u>Requirement</u>
One	\$00.00	Duct closure with mastic that meets Tampa Electric guidelines for allowable duct leakage.

<u>Level</u>	<u>Incentive</u>	<u>Requirement</u>
Two	\$100.00 (per unit)	Meet Level One requirements plus installation of a heat pump with a minimum 12 Seasonal Energy Efficiency Rating ("SEER") and a minimum 7.2 Heating Seasonal Performance Factor ("HSPF"). OR Meet Level One requirement plus installation of an air conditioning system that has a minimum 12 SEER and heating source must not be electric resistance heat or fuel oil.
Three	\$100.00	Meet level One and Two requirements plus install R-30 ceiling insulation.
Four	\$100.00 (per unit)	Meet level One, Two, and Three requirements plus installation of heat recovery unit or a heat pump water heater (applicable only when used with an electric water heater).

2. The home must be single family detached. The HVAC system must be ducted.
3. The home and equipment must be accessible during construction and after construction for verification of program standards.
4. The home must be located in Tampa Electric's service area and be metered by Tampa Electric to receive incentives.
5. Only one incentive payment will be issued per home. The payment will be based on equipment or measures purchased prior to the certificate of occupancy.
6. Equipment specifications shall be according to Air Conditioning and Refrigeration Institute ("ARI") and the Gas Appliance Manufacturers Association standards (where applicable). Heat recovery water heaters must be equipped with a circulating pump and must be certified by the Association of Refrigeration Desuperheater Manufacturers.
7. The certification of new home construction that meets or exceeds the standards used in the EPA's Energy Star Program will follow the Guidelines for Uniformity, Voluntary Procedures for Home Energy Ratings, prepared by the Home Energy Rating Systems ("HERS") Council and the Florida Addendum to the National HERS Council Guidelines, December

1998. Certification will be provided at no cost to participating builders or homeowners.

8. Tampa Electric guidelines for allowable duct leakage are based on the procedures set by the Department of Community Affairs used to measure acceptable HERS duct leakage standards. Mastic approved by the State of Florida Energy Efficiency Code for New Construction must be used on all duct closures.
9. The homebuyer will be responsible for installation of qualifying equipment or measures as well as the correction of any items necessary to meet the program standards. The homebuyer will receive the incentive payment when program standards have been met.
10. The builder or homebuyer submits a rebate request form to Tampa Electric. The builder will sign the form certifying that the equipment or measures installed are in accordance with the program standards. The homebuyer will sign the form verifying that the equipment and upgrades were installed and the incentive recipient's name and mailing address are correct.
11. Tampa Electric will randomly perform full field verification on a minimum of 10% of the participating homes. Forms not selected for field review will have an office verification to validate information.
12. All applications will receive either field verification or office validation prior to payment being made.
13. To determine eligibility for participation, building permits must be dated subsequent to program implementation.
14. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Tampa Electric used the data from SRC to determine the savings for new construction. The savings for the levels of customer participation are as follows:

Savings:

Level One

	Summer kW	Winter kW	Annual kWh
Electric	0.341	0.278	744
Gas	0.341	0.000	558

Level Two

	Summer kW	Winter kW	Annual kWh
Electric	0.632	0.575	1,169
Gas	0.631	0.000	877

Level Three

Electric	0.700	0.664	1,313
Gas	0.700	0.000	985

Level Four

Electric	0.891	0.664	1,863
Composite	0.71	0.53	1,490

Composite cost estimates are as follows:

Administrative costs per participant: \$175.00

Incentive costs per participant: \$220.00

Program Monitoring and Evaluation

Tampa Electric utilized the engineering estimates and computer modeling from the SRC Study for the demand and energy savings. Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: RESIDENTIAL NEW CONSTRUCTION

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2005	6,478	6,478	25	0.4%	25
2006	6,396	6,396	20	0.7%	45
2007	5,896	5,896	15	1.0%	60
2008	5,685	5,685	10	1.2%	70
2009	5,931	5,931	5	1.3%	75
2010	0	0	0	0.0%	0
2011	0	0	0	0.0%	0
2012	0	0	0	0.0%	0
2013	0	0	0	0.0%	0
2014	0	0	0	0.0%	0

* Previous participation levels not included. Future Impacts of Florida Building Code expected to eliminate further participation.

PROGRAM NAME: RESIDENTIAL NEW CONSTRUCTION

AT THE METER						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	1,490	0.530	0.710	0.037	0.013	0.018
2006	1,490	0.530	0.710	0.067	0.024	0.032
2007	1,490	0.530	0.710	0.089	0.032	0.043
2008	1,490	0.530	0.710	0.104	0.037	0.050
2009	1,490	0.530	0.710	0.112	0.040	0.053
2010	0	0.000	0.000	0.000	0.000	0.000
2011	0	0.000	0.000	0.000	0.000	0.000
2012	0	0.000	0.000	0.000	0.000	0.000
2013	0	0.000	0.000	0.000	0.000	0.000
2014	0	0.000	0.000	0.000	0.000	0.000

PROGRAM NAME: RESIDENTIAL NEW CONSTRUCTION

Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	1,579	0.565	0.757	0.039	0.014	0.019
2006	1,579	0.565	0.757	0.071	0.025	0.034
2007	1,579	0.565	0.757	0.095	0.034	0.045
2008	1,579	0.565	0.757	0.111	0.040	0.053
2009	1,579	0.565	0.757	0.118	0.042	0.057
2010	0	-----	-----	-----	-----	-----
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PROGRAM TITLE: Residential New Construction

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PROGRAM DEMAND SAVINGS & LINE LOSSES

I. (1) CUSTOMER KW REDUCTION AT THE METER	0.71 KW /CUST
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	0.751 KW GEN/CUST
I. (3) KW LINE LOSS PERCENTAGE	6.6 %
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	1585 KWH/CUST/YR
I. (5) KWH LINE LOSS PERCENTAGE	6.0 %
I. (6) GROUP LINE LOSS MULTIPLIER	1
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR
I. (8)* CUSTOMER KWH REDUCTION AT METER	1490 KWH/CUST/YR

ECONOMIC LIFE & K FACTORS

II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	15 YEARS
II. (2) GENERATOR ECONOMIC LIFE	26 YEARS
II. (3) T & D ECONOMIC LIFE	26 YEARS
II. (4) K FACTOR FOR GENERATION	1.6926
II. (5) K FACTOR FOR T & D	1.6926
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1



UTILITY & CUSTOMER COSTS

III. (1) UTILITY NONRECURRING COST PER CUSTOMER	175.00 \$/CUST
III. (2) UTILITY RECURRING COST PER CUSTOMER	0.00 \$/CUST/YR
III. (3) UTILITY COST ESCALATION RATE	2.5 %
III. (4) CUSTOMER EQUIPMENT COST	645.00 \$/CUST
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	2.5 %
III. (6) CUSTOMER O & M COST	0 \$/CUST/YR
III. (7) CUSTOMER O & M ESCALATION RATE	2.5 %
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	0 %
III. (10)* INCREASED SUPPLY COSTS	0 \$/CUST/YR
III. (11)* SUPPLY COSTS ESCALATION RATE	0 %
III. (12)* UTILITY DISCOUNT RATE	0.0939
III. (13)* UTILITY AFUDC RATE	0.0779
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	220.00 \$/CUST
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	0.00 \$/CUST/YR
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0 %

AVOIDED GENERATOR, TRANS. & DIST COSTS

IV. (1) BASE YEAR	2005
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2008
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D	2008
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST	230.18 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST	0 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3 %
IV. (8) GENERATOR FIXED O & M COST	2.544 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE	2.5 %
IV. (10) TRANSMISSION FIXED O & M COST	0 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST	0 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE	2.5 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.8135 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.5 %
IV. (15) GENERATOR CAPACITY FACTOR	5.5 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST	6.27 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE	1.43 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW	0 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE	0 %

NON-FUEL ENERGY AND DEMAND CHARGES

V. (1) NON-FUEL COST IN CUSTOMER BILL	4.342 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE	1 %
V. (3) CUSTOMER DEMAND CHARGE PER KW	0.00 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE	1 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1

(1)* TRC TEST - BENEFIT/COST RATIO	1.15
(2)* PARTICIPANT NET BENEFITS (NPV)	41

TOTAL RESOURCE COST TESTS
PROGRAM: Residential New Construction

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)	
2005	0	5	19	0	25	0	0	1	0	1	(24)	(24)	
2006	0	5	20	0	25	0	0	3	0	3	(22)	(44)	
2007	0	6	20	0	26	0	0	5	0	5	(21)	(62)	
2008	0	0	0	0	0	5	0	6	0	11	11	(53)	
2009	0	0	0	0	0	5	0	5	0	10	10	(46)	
2010	0	0	0	0	0	5	0	7	0	12	12	(38)	
2011	0	0	0	0	0	5	0	8	0	13	13	(31)	
2012	0	0	0	0	0	5	0	8	0	13	13	(24)	
2013	0	0	0	0	0	5	0	7	0	12	12	(18)	
2014	0	0	0	0	0	6	0	7	0	13	13	(13)	
2015	0	0	0	0	0	6	0	7	0	13	13	(7)	
2016	0	0	0	0	0	6	0	8	0	13	13	(2)	
2017	0	0	0	0	0	6	0	7	0	13	13	2	
2018	0	0	0	0	0	6	0	7	0	13	13	6	
2019	0	0	0	0	0	6	0	7	0	13	13	10	
NOMINAL	0	16	60	0	76	66	0	93	0	158	83		
NPV:	0	15	54	0	69	31	0	48	0	79	10		
Discount Rate		0.0939	Benefit/Cost Ratio - [col (11)/col (6)]:				1.15						

PARTICIPANT COSTS AND BENEFITS
PROGRAM: Residential New Construction

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILL \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O & M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2005	2	0	7	0	8	19	0	0	19	(11)	(11)
2006	5	0	7	0	12	20	0	0	20	(8)	(19)
2007	9	0	7	0	15	20	0	0	20	(5)	(23)
2008	10	0	0	0	10	0	0	0	0	10	(15)
2009	10	0	0	0	10	0	0	0	0	10	(8)
2010	11	0	0	0	11	0	0	0	0	11	(1)
2011	11	0	0	0	11	0	0	0	0	11	6
2012	11	0	0	0	11	0	0	0	0	11	12
2013	11	0	0	0	11	0	0	0	0	11	17
2014	11	0	0	0	11	0	0	0	0	11	22
2015	11	0	0	0	11	0	0	0	0	11	26
2016	11	0	0	0	11	0	0	0	0	11	30
2017	11	0	0	0	11	0	0	0	0	11	34
2018	11	0	0	0	11	0	0	0	0	11	38
2019	11	0	0	0	11	0	0	0	0	11	41
NOMINAL	147	0	20	0	166	60	0	0	60	107	
NPV:	77	0	18	0	95	54	0	0	54	41	

In service year of gen unit: 2004
Discount rate: 0.0939

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RATE IMPACT TEST
PROGRAM: Residential New Construction

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS TO ALL CUSTOMERS \$(000)	CUMULATIVE DISCOUNTED NET BENEFIT \$(000)
2005	0	5	7	1	0	13	1	0	0	0	1	(12)	(12)
2006	0	5	7	3	0	15	3	0	0	0	3	(12)	(23)
2007	0	6	7	5	0	17	5	0	0	0	5	(12)	(33)
2008	0	0	0	6	0	6	11	0	0	0	11	5	(30)
2009	0	0	0	6	0	6	10	0	0	0	10	4	(27)
2010	0	0	0	6	0	6	12	0	0	0	12	6	(23)
2011	0	0	0	6	0	6	13	0	0	0	13	7	(19)
2012	0	0	0	6	0	6	13	0	0	0	13	7	(15)
2013	0	0	0	6	0	6	12	0	0	0	12	6	(12)
2014	0	0	0	6	0	6	13	0	0	0	13	6	(10)
2015	0	0	0	6	0	6	13	0	0	0	13	6	(7)
2016	0	0	0	6	0	6	13	0	0	0	13	7	(4)
2017	0	0	0	7	0	7	13	0	0	0	13	7	(2)
2018	0	0	0	7	0	7	13	0	0	0	13	7	(0)
2019	0	0	0	7	0	7	13	0	0	0	13	6	2
NOMINAL	0	16	20	85	0	121	158	0	0	0	158	37	
NPV:	0	15	18	45	0	78	79	0	0	0	79	2	
Discount rate:			0.0939										
							Benefit/Cost Ratio - [col (12)/col (7)]:				1.02		

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Program: Residential Heating & Cooling

Program Start Date: January 1981

Program Description

A conservation program that uses a rebate to encourage the installation of high efficiency heating and cooling systems in existing single family detached dwellings. The program is aimed at reducing the growth of peak demand and energy through two types of equipment replacement. Type one equipment replacement is defined as a heat pump replacing resistance heat and type two equipment replacement is defined as a heat pump replacing a heat pump. Both types of equipment replacement have a threshold for qualification of 12.0 SEER. Tampa Electric's rebate is paid to the contractor performing the installation.

Program Participation Standards

1. The residential dwelling must be an existing single family detached structure (no mobile homes or multi - family units, condominiums, apartments or townhouses) in Tampa Electric's service area.
2. The system must be ducted.
3. Minimum qualifying efficiency rating (ARI rating only) is 12.0 SEER.
4. For a heat pump, the maximum supplemental strip heating physically contained in the system shall not exceed 2 kW per nominal ton. On a system less than 2.5 tons, a 5 kW heat strip will be allowed.
5. For a heat pump utilizing supplemental strip heating, a two-stage indoor thermostat is required.
6. For straight cool systems, oil or electric resistance heat cannot be the primary heat source.
7. In the situation where a heating and cooling system qualifies for two rebates (Tampa Electric and a gas company), Tampa Electric will not pay its rebate so that a double payment is avoided.
8. The contractor will subtract the rebate paid by Tampa Electric from the customer's total cost of equipment and installation. In the event of a customer installation with no contractor involvement, Tampa Electric will issue the rebate to the customer.
9. The HVAC contractor or customer submits a rebate request form to Tampa Electric. The form will be signed by the contractor or customer

certifying that the equipment installed is in accordance with the program standards. The customer will sign the form verifying that the equipment was installed and that the contractor deducted the rebate amount from the total installed cost of the new HVAC unit.

10. Heating and Cooling rebate forms must be received within 30 days of installation date of the unit to assure payment to the dealer. Rebate forms must be filled out completely and correctly to be redeemed. Tampa Electric reserves the right to deny payment to contractors who fail to comply.
11. Tampa Electric will randomly perform full field verifications on a minimum of 10% of the participating homes. Forms not selected for field review will have an office verification to validate information.
12. No payment will be made until Tampa Electric verifies or validates rebate requests.
13. Rebates:

Type One	\$250.00
Type Two	\$100.00
14. The effective date for the dealer rebate payments is July 1, 2005.
15. Consistent with previous Commission decisions that recognize the need to provide a transition period for work-in-progress occurring just before a modification of rebate amounts, customers and dealers with completed installations and rebate forms signed and received prior to July 1, 2005 will be eligible for the previous level of customer rebates and dealer incentives.
16. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Historically, central A/C units with resistance heat and central heat pumps comprise 32% and 68% participation, respectively. Additionally, the analysis from the SRC data of heating and cooling replacement savings for the HVAC systems is as follows:

<u>Type System</u>	<u>Winter Demand (kW)</u>	<u>Summer Demand (kW)</u>	<u>Annual Energy (kWh)</u>
Central A/C with Strip	2.363	0.291	1,197
Central Heat Pump	0.223	0.291	568

By weighting these savings across system types, the following reductions are rendered:

Winter Demand:

Strip heat	(2.363) (0.32)	=	0.76
Heat Pump	(0.223) (0.68)	=	<u>0.15</u>
Average winter demand reduction		=	0.91 kW

Summer Demand:

Straight A/C	(0.291) (0.32)	=	0.09
Heat Pump	(0.291) (0.68)	=	<u>0.20</u>
Average summer demand reduction		=	0.29 kW

Energy:

Straight A/C	(1,197) (0.32)	=	383
Heat Pump	(568) (0.68)	=	<u>386</u>
Average annual energy savings		=	769 kWh

Costs (weighted):

Rebate cost per participant:	\$148.00
Administrative cost per participant:	\$31.00

Program Monitoring and Evaluation

Tampa Electric utilized the engineering estimates and computer modeling from the SRC study for the demand and energy savings of the program. Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: RESIDENTIAL HEATING AND COOLING

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2005	558,217	329,348	3,200	1.0%	3,200
2006	571,386	337,118	1,000	1.2%	4,200
2007	583,878	344,488	880	1.5%	5,080
2008	596,472	351,919	760	1.7%	5,840
2009	610,379	360,123	640	1.8%	6,480
2010	625,351	368,957	520	1.9%	7,000
2011	640,734	378,033	400	2.0%	7,400
2012	656,186	387,150	280	2.0%	7,680
2013	669,200	394,828	160	2.0%	7,840
2014	682,426	402,632	40	2.0%	7,880

* Previous participation levels not included.

PROGRAM NAME: RESIDENTIAL HEATING AND COOLING

Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	769	0.910	0.290	2.461	2.912	0.928
2006	769	0.910	0.290	3.230	3.822	1.218
2007	769	0.910	0.290	3.907	4.623	1.473
2008	769	0.910	0.290	4.491	5.314	1.694
2009	769	0.910	0.290	4.983	5.897	1.879
2010	769	0.910	0.290	5.383	6.370	2.030
2011	769	0.910	0.290	5.691	6.734	2.146
2012	769	0.910	0.290	5.906	6.989	2.227
2013	769	0.910	0.290	6.029	7.134	2.274
2014	769	0.910	0.290	6.060	7.171	2.285

PROGRAM NAME: RESIDENTIAL HEATING AND COOLING

AT THE GENERATOR						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	815	0.970	0.309	2.608	3.104	0.989
2006	815	0.970	0.309	3.424	4.074	1.298
2007	815	0.970	0.309	4.141	4.928	1.570
2008	815	0.970	0.309	4.760	5.665	1.805
2009	815	0.970	0.309	5.282	6.286	2.003
2010	815	0.970	0.309	5.706	6.790	2.164
2011	815	0.970	0.309	6.032	7.178	2.288
2012	815	0.970	0.309	6.260	7.450	2.374
2013	815	0.970	0.309	6.391	7.605	2.424
2014	815	0.970	0.309	6.423	7.644	2.436

INPUT DATA - PART 1
PROGRAM TITLE: Heating & Cooling

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PROGRAM DEMAND SAVINGS & LINE LOSSES

I. (1) CUSTOMER KW REDUCTION AT THE METER	0.29 KW /CUST
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	0.445 KW GEN/CUST
I. (3) KW LINE LOSS PERCENTAGE	6.6 %
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	818 KWH/CUST/YR
I. (5) KWH LINE LOSS PERCENTAGE	6.0 %
I. (6) GROUP LINE LOSS MULTIPLIER	1
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR
I. (8)* CUSTOMER KWH REDUCTION AT METER	769 KWH/CUST/YR

ECONOMIC LIFE & K FACTORS

II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	15 YEARS
II. (2) GENERATOR ECONOMIC LIFE	26 YEARS
II. (3) T & D ECONOMIC LIFE	26 YEARS
II. (4) K FACTOR FOR GENERATION	1.6926
II. (5) K FACTOR FOR T & D	1.6926
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1

UTILITY & CUSTOMER COSTS

III. (1) UTILITY NONRECURRING COST PER CUSTOMER	
III. (2) UTILITY RECURRING COST PER CUSTOMER	
III. (3) UTILITY COST ESCALATION RATE	
III. (4) CUSTOMER EQUIPMENT COST	
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	
III. (6) CUSTOMER O & M COST	
III. (7) CUSTOMER O & M ESCALATION RATE	
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	
III. (10)* INCREASED SUPPLY COSTS	
III. (11)* SUPPLY COSTS ESCALATION RATE	
III. (12)* UTILITY DISCOUNT RATE	
III. (13)* UTILITY AFUDC RATE	
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00 \$/CUST
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	0.00 \$/CUST/YR
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0 %

AVOIDED GENERATOR, TRANS. & DIST COSTS

IV. (1) BASE YEAR	2005
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2008
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D	2008
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST	230.18 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST	0 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3 %
IV. (8) GENERATOR FIXED O & M COST	2.544 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE	2.5 %
IV. (10) TRANSMISSION FIXED O & M COST	0 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST	0 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE	2.5 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.8135 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.5 %
IV. (15) GENERATOR CAPACITY FACTOR	5.5 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST	6.27 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE	1.43 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW	0 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE	0 %

NON-FUEL ENERGY AND DEMAND CHARGES

V. (1) NON-FUEL COST IN CUSTOMER BILL	4.342 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE	1 %
V. (3) CUSTOMER DEMAND CHARGE PER KW	0.00 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE	1 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1

(1)* TRC TEST - BENEFIT/COST RATIO	1.10
(2)* PARTICIPANT NET BENEFITS (NPV)	1,015
(3)* RIM TEST - BENEFIT/COST RATIO	1.09

TOTAL RESOURCE COST TESTS
PROGRAM: Heating & Cooling

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)	
2005	0	573	883	0	1,456	0	0	45	0	45	(1,411)	(1,411)	
2006	0	183	283	0	466	0	0	113	0	113	(353)	(1,734)	
2007	0	165	255	0	421	0	0	155	0	155	(266)	(1,956)	
2008	0	0	0	0	0	160	0	168	0	328	328	(1,706)	
2009	0	0	0	0	0	163	0	151	0	314	314	(1,487)	
2010	0	0	0	0	0	166	0	202	0	368	368	(1,252)	
2011	0	0	0	0	0	169	0	215	0	384	384	(1,028)	
2012	0	0	0	0	0	172	0	216	0	388	388	(821)	
2013	0	0	0	0	0	176	0	194	0	370	370	(640)	
2014	0	0	0	0	0	179	0	203	0	382	382	(470)	
2015	0	0	0	0	0	183	0	204	0	387	387	(313)	
2016	0	0	0	0	0	186	0	218	0	404	404	(162)	
2017	0	0	0	0	0	190	0	212	0	402	402	(25)	
2018	0	0	0	0	0	194	0	211	0	404	404	101	
2019	0	0	0	0	0	197	0	201	0	398	398	214	
NOMINAL	0	922	1,421	0	2,343	2,135	0	2,706	0	4,841	2,498		
NPV:	0	879	1,355	0	2,234	1,023	0	1,425	0	2,448	214		
Discount Rate		0.0939	Benefit/Cost Ratio - [col (11)/col (6)]:				1.10						

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PARTICIPANT COSTS AND BENEFITS
PROGRAM: Heating & Cooling

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILL \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O & M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2005	88	0	0	0	88	883	0	0	883	(795)	(795)
2006	212	0	0	0	212	283	0	0	283	(71)	(860)
2007	272	0	0	0	272	255	0	0	255	17	(846)
2008	302	0	0	0	302	0	0	0	0	302	(615)
2009	293	0	0	0	293	0	0	0	0	293	(410)
2010	324	0	0	0	324	0	0	0	0	324	(203)
2011	332	0	0	0	332	0	0	0	0	332	(9)
2012	331	0	0	0	331	0	0	0	0	331	167
2013	306	0	0	0	306	0	0	0	0	306	316
2014	320	0	0	0	320	0	0	0	0	320	459
2015	314	0	0	0	314	0	0	0	0	314	587
2016	327	0	0	0	327	0	0	0	0	327	709
2017	328	0	0	0	328	0	0	0	0	328	820
2018	331	0	0	0	331	0	0	0	0	331	923
2019	322	0	0	0	322	0	0	0	0	322	1,015
NOMINAL	4,402	0	0	0	4,402	1,421	0	0	1,421	2,980	
NPV:	2,370	0	0	0	2,370	1,355	0	0	1,355	1,015	

In service year of gen unit: 2004
Discount rate: 0.0939

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RATE IMPACT TEST
 PROGRAM: Heating & Cooling

PSC FORM CE 2.5
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 November 9, 2004

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
YEAR	INCREASED SUPPLY COSTS	UTILITY PROGRAM COSTS	INCENTIVES	REVENUE LOSSES	OTHER COSTS	TOTAL COSTS	AVOIDED GEN UNIT UNIT & FUEL BENEFITS	AVOIDED T & D BENEFITS	REVENUE GAINS	OTHER BENEFITS	TOTAL BENEFITS	NET BENEFITS TO ALL CUSTOMERS	CUMULATIVE DISCOUNTED NET BENEFIT	
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	
2005	0	573	0	53	0	626	45	0	0	0	45	(582)	(582)	
2006	0	183	0	125	0	308	113	0	0	0	113	(195)	(760)	
2007	0	165	0	158	0	324	155	0	0	0	155	(169)	(901)	
2008	0	0	0	175	0	175	328	0	0	0	328	153	(784)	
2009	0	0	0	177	0	177	314	0	0	0	314	137	(688)	
2010	0	0	0	178	0	178	368	0	0	0	368	190	(567)	
2011	0	0	0	180	0	180	384	0	0	0	384	204	(448)	
2012	0	0	0	182	0	182	388	0	0	0	388	206	(338)	
2013	0	0	0	184	0	184	370	0	0	0	370	186	(247)	
2014	0	0	0	186	0	186	382	0	0	0	382	196	(160)	
2015	0	0	0	187	0	187	387	0	0	0	387	199	(78)	
2016	0	0	0	189	0	189	404	0	0	0	404	215	2	
2017	0	0	0	191	0	191	402	0	0	0	402	210	73	
2018	0	0	0	193	0	193	404	0	0	0	404	211	139	
2019	0	0	0	195	0	195	398	0	0	0	398	203	197	
NOMINAL	0	922	0	2,553	0	3,474	4,841	0	0	0	4,841	1,366		
NPV:	0	879	0	1,372	0	2,251	2,448	0	0	0	2,448	197		
Discount rate:			0.0939											
													Benefit/Cost Ratio - [col (12)/col (7)]:	1.09

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Program: Residential Ceiling Insulation

Program Start Date: November 1982

Program Description

A conservation program designed to reduce demand and energy by decreasing the load on residential air conditioning and heating equipment. Qualifying residential structures are eligible for an incentive of up to \$100.00 which is in the form of a certificate. Customers use the certificate as partial payment for the ceiling insulation installed.

Program Participation Standards

1. Homes must not be covered by a new home warranty.
2. Homes must have electric whole house air conditioning or heating. Residences with non-electric heating are eligible provided they have electric whole house air conditioning.
3. Customers must add a minimum insulation value of R-11 based on a manufacturer's specification card. Resulting total R-values achieved will range from R-23 to R-29. Where roof pitch limits accessibility, an R-11 must be added.
4. Customers are required to sign off on the number of bags of insulation installed.
5. Insulation certificates will be issued through either energy audits or by direct evaluation of existing levels of insulation.
6. The insulation contractor or customer submits an insulation certificate to Tampa Electric.
7. Tampa Electric will randomly perform full field verifications on a minimum of 10% of participating homes. Forms not selected for field verifications will have an office verification to validate information.
8. No payment will be made until Tampa Electric inspects or reviews incentive certificates.
9. The contractor/customer incentive payment is a maximum of \$100.00 per residence.
10. The contractor will subtract the incentive paid by Tampa Electric from the customer's cost of installation.

11. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Historically central A/C units with resistance heat and heat pumps comprise a 32% and 68% of participation, respectively. Additionally, participants have the following characteristics:

Conditioned space: 1,136 sq. ft.
 Present R-value: R-10
 Desired R-value: R-26

Savings were obtained using DOE2 building simulation models. The analysis yielded the following:

<u>Type System</u>	<u>Winter Demand (kW)</u>	<u>Summer Demand (kW)</u>	<u>Annual Energy (kWh)</u>
Central A/C with Strip	0.9	0.3	1,078
Central Heat Pump	0.2	0.3	531

By weighting these savings across the system types and diversity (savings X diversity, when applicable, X weighting), the following reductions are rendered:

Winter Demand:

$$\begin{aligned}
 \text{Strip heat} & \quad (0.9) (0.5) (0.32) & = & \quad 0.144 \\
 \text{Heat Pump} & \quad (0.2) (0.75) (0.68) & = & \quad \underline{0.096} \\
 \text{Average winter demand reduction} & & = & \quad 0.246 \text{ kW}
 \end{aligned}$$

Summer Demand:

$$\text{Average summer demand reduction} \quad (0.3) (0.6) = 0.18 \text{ kW}$$

Energy:

$$\begin{aligned}
 \text{Strip heat} & \quad (1,078) (0.32) & = & \quad 345 \\
 \text{Heat Pump} & \quad (531) (0.68) & = & \quad \underline{361} \\
 \text{Average annual energy savings} & & = & \quad 706 \text{ kWh}
 \end{aligned}$$

Program Costs

Incentive cost per participant:	\$ 100.00
Administrative cost per participant:	\$ 35.95

Program Monitoring and Evaluation

Tampa Electric will continue to monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: RESIDENTIAL CEILING INSULATION

	(a)	(b)	(c)	(d)	(e)
Year	Total Number of Customers	Total Number of Eligible Customers	Annual Number of Program Participants	Cumulative Penetration Level %	Cumulative Number of Program Participants*
2005	558,217	424,620	3,000	0.7%	3,000
2006	571,386	428,016	2,500	1.3%	5,500
2007	583,878	431,412	2,300	1.8%	7,800
2008	596,472	434,797	2,100	2.3%	9,900
2009	610,379	438,628	1,900	2.7%	11,800
2010	625,351	442,834	1,500	3.0%	13,300
2011	640,734	447,522	1,200	3.2%	14,500
2012	656,186	452,630	900	3.4%	15,400
2013	669,200	458,386	700	3.5%	16,100
2014	682,426	464,462	500	3.6%	16,600

* Previous participation levels not included.

PROGRAM NAME: RESIDENTIAL CEILING INSULATION

AT THE METER						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	706	0.246	0.180	2.118	0.738	0.540
2006	706	0.246	0.180	3.883	1.353	0.990
2007	706	0.246	0.180	5.507	1.919	1.404
2008	706	0.246	0.180	6.989	2.435	1.782
2009	706	0.246	0.180	8.331	2.903	2.124
2010	706	0.246	0.180	9.390	3.272	2.394
2011	706	0.246	0.180	10.237	3.567	2.610
2012	706	0.246	0.180	10.872	3.788	2.772
2013	706	0.246	0.180	11.367	3.961	2.898
2014	706	0.246	0.180	11.720	4.084	2.988

PROGRAM NAME: RESIDENTIAL CEILING INSULATION

AT THE GENERATOR						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	748	0.262	0.192	2.245	0.787	0.576
2006	748	0.262	0.192	4.116	1.442	1.055
2007	748	0.262	0.192	5.837	2.045	1.497
2008	748	0.262	0.192	7.409	2.596	1.900
2009	748	0.262	0.192	8.831	3.094	2.264
2010	748	0.262	0.192	9.953	3.488	2.552
2011	748	0.262	0.192	10.851	3.802	2.782
2012	748	0.262	0.192	11.525	4.038	2.955
2013	748	0.262	0.192	12.049	4.222	3.089
2014	748	0.262	0.192	12.423	4.353	3.185

INPUT DATA - PART 1
PROGRAM TITLE: Ceiling Insulation

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 RUN DATE: November 9, 2004

PROGRAM DEMAND SAVINGS & LINE LOSSES

I. (1) CUSTOMER KW REDUCTION AT THE METER	0.18 KW /CUST
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	0.213 KW GEN/CUST
I. (3) KW LINE LOSS PERCENTAGE	6.6 %
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	751 KWH/CUST/YR
I. (5) KWH LINE LOSS PERCENTAGE	6.0 %
I. (6) GROUP LINE LOSS MULTIPLIER	1
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR
I. (8)* CUSTOMER KWH REDUCTION AT METER	706 KWH/CUST/YR

ECONOMIC LIFE & K FACTORS

II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	26 YEARS
II. (2) GENERATOR ECONOMIC LIFE	26 YEARS
II. (3) T & D ECONOMIC LIFE	26 YEARS
II. (4) K FACTOR FOR GENERATION	1.6926
II. (5) K FACTOR FOR T & D	1.6926
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	0

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6**

UTILITY & CUSTOMER COSTS

III. (1) UTILITY NONRECURRING COST PER CUSTOMER	35.95 \$/CUST
III. (2) UTILITY RECURRING COST PER CUSTOMER	0.00 \$/CUST/YR
III. (3) UTILITY COST ESCALATION RATE	2.5 %
III. (4) CUSTOMER EQUIPMENT COST	256.20 \$/CUST
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	2.5 %
III. (6) CUSTOMER O & M COST	0 \$/CUST/YR
III. (7) CUSTOMER O & M ESCALATION RATE	2.5 %
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	0 %
III. (10)* INCREASED SUPPLY COSTS	0 \$/CUST/YR
III. (11)* SUPPLY COSTS ESCALATION RATE	0 %
III. (12)* UTILITY DISCOUNT RATE	0.0939
III. (13)* UTILITY AFUDC RATE	0.0779
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	100.00 \$/CUST
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	0.00 \$/CUST/YR
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0 %

AVOIDED GENERATOR, TRANS. & DIST COSTS

IV. (1) BASE YEAR	2005
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2008
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D	2008
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST	230.18 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST	0 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3 %
IV. (8) GENERATOR FIXED O & M COST	2,544 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE	2.5 %
IV. (10) TRANSMISSION FIXED O & M COST	0 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST	0 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE	2.5 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.8135 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.5 %
IV. (15) GENERATOR CAPACITY FACTOR	5.5 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST	6.27 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE	1.43 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW	0 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE	0 %

NON-FUEL ENERGY AND DEMAND CHARGES

V. (1) NON-FUEL COST IN CUSTOMER BILL	4.342 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE	1 %
V. (3) CUSTOMER DEMAND CHARGE PER KW	0.00 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE	1 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1

CALCULATED BENEFITS AND COSTS	
(1)* TRC TEST - BENEFIT/COST RATIO	1.71
(2)* PARTICIPANT NET BENEFITS (NPV)	3,014
(3)* RIM TEST - BENEFIT/COST RATIO	1.09

TOTAL RESOURCE COST TESTS
PROGRAM: Ceiling Insulation

PSC FORM CE 2.3
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November 9, 2004

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2005	0	108	769	0	876	0	0	39	0	39	(838)	(838)
2006	0	92	657	0	749	0	0	119	0	119	(629)	(1,413)
2007	0	87	619	0	706	0	0	204	0	204	(502)	(1,832)
2008	0	0	0	0	0	153	0	238	0	390	390	(1,534)
2009	0	0	0	0	0	150	0	213	0	364	364	(1,280)
2010	0	0	0	0	0	148	0	286	0	434	434	(1,003)
2011	0	0	0	0	0	145	0	303	0	449	449	(741)
2012	0	0	0	0	0	143	0	305	0	448	448	(502)
2013	0	0	0	0	0	141	0	274	0	415	415	(300)
2014	0	0	0	0	0	139	0	287	0	426	426	(110)
2015	0	0	0	0	0	137	0	288	0	426	426	63
2016	0	0	0	0	0	136	0	308	0	443	443	228
2017	0	0	0	0	0	134	0	299	0	433	433	376
2018	0	0	0	0	0	132	0	298	0	430	430	510
2019	0	0	0	0	0	130	0	284	0	414	414	628
2020	0	0	0	0	0	129	0	320	0	449	449	744
2021	0	0	0	0	0	127	0	342	0	469	469	856
2022	0	0	0	0	0	125	0	340	0	465	465	957
2023	0	0	0	0	0	124	0	327	0	451	451	1,047
2024	0	0	0	0	0	123	0	343	0	467	467	1,131
2025	0	0	0	0	0	123	0	337	0	460	460	1,208
2026	0	0	0	0	0	123	0	374	0	497	497	1,283
2027	0	0	0	0	0	123	0	390	0	513	513	1,355
2028	0	0	0	0	0	123	0	384	0	507	507	1,419
2029	0	0	0	0	0	123	0	352	0	475	475	1,474
2030	0	0	0	0	0	123	0	404	0	527	527	1,530
NOMINAL	0	287	2,044	0	2,331	3,054	0	7,659	0	10,712	8,381	
NPV:	0	265	1,886	0	2,151	1,075	0	2,606	0	3,681	1,530	
Discount Rate		0.0939	Benefit/Cost Ratio - [col (11)/col (6)]:				1.71					

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RATE IMPACT TEST
PROGRAM: Ceiling Insulation

PSC FORM CE 2.5
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November 9, 2004

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS TO ALL CUSTOMERS \$(000)	CUMULATIVE DISCOUNTED NET BENEFIT \$(000)
2005	0	108	300	46	0	454	39	0	0	0	39	(415)	(415)
2006	0	92	250	132	0	474	119	0	0	0	119	(354)	(739)
2007	0	87	230	208	0	525	204	0	0	0	204	(321)	(1007)
2008	0	0	0	246	0	246	390	0	0	0	390	144	(897)
2009	0	0	0	249	0	249	364	0	0	0	364	115	(817)
2010	0	0	0	251	0	251	434	0	0	0	434	182	(700)
2011	0	0	0	254	0	254	449	0	0	0	449	195	(587)
2012	0	0	0	256	0	256	448	0	0	0	448	192	(484)
2013	0	0	0	259	0	259	415	0	0	0	415	156	(408)
2014	0	0	0	262	0	262	426	0	0	0	426	164	(335)
2015	0	0	0	264	0	264	426	0	0	0	426	162	(269)
2016	0	0	0	267	0	267	443	0	0	0	443	177	(203)
2017	0	0	0	269	0	269	433	0	0	0	433	163	(148)
2018	0	0	0	272	0	272	430	0	0	0	430	158	(99)
2019	0	0	0	275	0	275	414	0	0	0	414	139	(59)
2020	0	0	0	278	0	278	449	0	0	0	449	171	(15)
2021	0	0	0	280	0	280	469	0	0	0	469	188	30
2022	0	0	0	283	0	283	465	0	0	0	465	182	70
2023	0	0	0	286	0	286	451	0	0	0	451	165	103
2024	0	0	0	289	0	289	467	0	0	0	467	178	135
2025	0	0	0	292	0	292	460	0	0	0	460	169	163
2026	0	0	0	295	0	295	497	0	0	0	497	202	194
2027	0	0	0	298	0	298	513	0	0	0	513	216	224
2028	0	0	0	301	0	301	507	0	0	0	507	207	250
2029	0	0	0	304	0	304	475	0	0	0	475	171	270
2030	0	0	0	307	0	307	527	0	0	0	527	220	293
NOMINAL	0	287	780	6,721	0	7,788	10,712	0	0	0	10,712	2,925	
NPV:	0	265	721	2,402	0	3,388	3,681	0	0	0	3,681	293	
Discount rate:			0.0939				Benefit/Cost Ratio - [col (12)/col (7)]:				1.09		

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Program: Residential Price Responsive Load Management (Pilot Program)

Program Start Date: January 2005

Discussion

Tampa Electric recognizes the value of its existing residential load management resource and the potential for the incremental load that still exists in the marketplace. However, the company believes that a new approach must be taken in order to secure any portion of that existing potential.

Historically, residential and commercial load management programs have involved direct load control over the interruption of electric service to the controlled customer equipment (usually space heating, space cooling, water heating and pool pumps) by the utility. When power availability was short, the utility simply exercised its discretion to interrupt electric service to the controlled customer equipment and reduce system demand to help the utility meet system peak.

Today, a new approach to residential and commercial load management is emerging. Under this new approach, price incentives coupled with a new generation of communication and control technologies are put in the hands of the customer. The approach has many benefits: it provides an opportunity for the customer to lower the cost of energy, it can improve economic efficiency, it presents energy information which can clearly educate customers on the true market price of energy, and it gives the customer the opportunity to make consumption choices based on those market prices for energy. Utilities who have implemented this new approach are seeing meaningful results - both in terms of increased load reductions and customer satisfaction - that rival or exceed those of the traditional programs that have been in place for over 20 years. This new approach is generically termed price responsive load management (PRLM).

Price responsive load management relies on a multi-tiered rate structure combined with price signals conveyed to participating customers during the day. This price information is designed to encourage customers to make behavioral or equipment usage changes to their energy consumption thereby achieving the desired high cost period load reduction to assist in meeting system peak.

Price information from the utility is used by the customer to program a smart thermostat into preset actions based on the level of pricing. Equipment may be turned on, turned off or changed to a different temperature setting automatically by the smart thermostat or manually by the customer through the smart thermostat in response to either the multi-tiered rates or critical price signals.

The primary differences between PRLM and other traditional forms of load management are twofold:

First, the choice to modify the operation of the controlled equipment has been given to the customer whereas traditional load management puts that control solely in the hands of the utility. The customer's decision to modify equipment usage (or not) is based on the price signal that is conveyed by the utility.

Second, large monthly incentives paid to retain program participants, regardless if control has been implemented or not, are no longer necessary. Customers simply pay the energy costs applicable during the time periods they consumed the energy, or avoid paying the energy costs by choosing to cease consuming energy from the controlled equipment.

Program Description

This program will be a residential load management R&D project designed to determine the magnitude of reduction of weather sensitive peak loads attained through offering customers a time-sensitive multi-tiered rate structure as an incentive to alter their electric consumption during higher cost or critical periods of generation.

Tampa Electric will install a communication device along with a "smart" thermostat at the participant's home that will be able to control the operation of selected appliances such as space heating, air conditioning, water heating and pool pumps. Customers will be able to program the operation of this equipment and alter their energy consumption based the price tiers occurring at specific times of the day.

Eligibility for the R&D pilot will consist of single-family residences only. The duration of the pilot project will depend on the consistency of normal winter and summer weather patterns; however, it is anticipated the maximum period of time will be 24 months.

Total participation in the pilot program is expected to be 250 customers. This group will be divided into a subgroup of 125 customers that have never participated in any form of load management. A second subgroup of 125 customers will be Prime Time customers who agree to switch to PRLM. For baseline comparisons and analyses, representative control groups will be identified for determining demand and energy reductions.

Program Costs

Tampa Electric estimates the total pilot expense for a maximum of 24 months will be \$1,700,000. However, should normal weather prevail, the estimate would be \$1,100,000. Major expense categories and their respective amounts are listed below.

Equipment installation & maintenance	\$202,000
Computer hardware, software & programming	349,000
Vendor consulting	773,000
Payroll	321,000
Sample procurement	35,000
Other	<u>20,000</u>
Total	\$1,700,000

Program Monitoring and Evaluation

Data will be collected on a monthly basis and shall supply inputs necessary to determine DSM cost-effectiveness as defined in Rule 25-17.008, F.A.C.

Tariff Sheets

Associated tariff sheets for this pilot program, in regular and legislative format, can be found following this narrative.

INDEX OF RATE SCHEDULES

<u>Schedule</u>	<u>Classification</u>	<u>Sheet No.</u>
	Additional Billing Charges	6.020
	Payment of Bills	6.022
RS	Residential Service	6.030
GS	General Service - Non Demand	6.050
GSD	General Service - Demand	6.080
GSLD	General Service - Large Demand	6.085
IS-1	Industrial Interruptible Service (Closed)	6.090
IS-3	Interruptible Service	6.140
SL-2	High Pressure Sodium Street Lighting Service	6.260
OL-1	High Pressure Sodium General Outdoor Lighting Service	6.270
TS	Temporary	6.290
OL-3	Premium Outdoor Lighting Service	6.304
RST	Time-of-Day Residential (Optional)	6.310
GST	Time-of-Day General Service - Non-Demand (Optional)	6.320
GSDT	Time-of-Day General Service - Demand (Optional)	6.330
GSLDT	Time-of-Day General Service - Large Demand (Optional)	6.340
IST-1	Time-of-Day Industrial Interruptible Service (Optional)	6.350
IST-3	Time-of-Day Interruptible Service (Optional)	6.370
GE	Green Energy Rider - Pilot Program	6.400
RSVP-1	Residential Service Variable Pricing	6.560
SBF	Firm Standby And Supplemental Service	6.600
SBFT	Time-of-Day Firm Standby And Supplemental Service (Optional)	6.605
SBI-1	Industrial Interruptible Standby And Supplemental Service	6.610
SBI-3	Interruptible Standby And Supplemental Service	6.620

ISSUED BY: C. R. Black, President

DATE EFFECTIVE:

RESIDENTIAL SERVICE VARIABLE PRICING PILOT

SCHEDULE: RSVP-1

RATE CODE: 113

AVAILABLE: Available to customers eligible for Rate Schedule RS (Residential Service). Availability is limited to single-family detached houses only that meet certain equipment requirements described below.

APPLICABLE: As an alternative to Rate Schedule RS for service used for domestic purposes at an individually-metered private residences. All energy must be for domestic purposes and should not be shared with others and resale is not permitted.

EQUIPMENT REQUIREMENTS:

1. Touch-tone phone service. (Land line)
2. Service entrance panel or house power panel rated at 200 amps or less.
3. Central heating and air conditioning that is compatible with Company installed energy management equipment.
4. Electric water heaters, pool pumps, or other devices controlled by equipment provided through the program must be no larger than 30 amps and 240 volts each and compatible with Company installed energy management equipment.
5. Electric wiring must be conducive to power line carrier messaging.
6. Residence must be located in an area capable of meeting a paging strength standard.
7. Existing meter configuration must be capable of incorporating the energy management equipment.

CHARACTER OF SERVICE: Available for single-phase service from local distribution lines of the Company's system at nominal secondary voltage of 120/240 volts. Service shall be metered through one metering device capable of measuring electrical energy consumption during the various times each energy demand charge is in effect.

MONTHLY RATES:

Customer Facilities Charge: \$8.50

Energy and Demand Charges:

Low Cost Hours (P ₁)	2.217	¢ per KWH
Medium Cost Hours (P ₂)	3.751	¢ per KWH
High Cost Hours (P ₃)	9.436	¢ per KWH
Critical Cost Hours (P ₄)	35.395	¢ per KWH

Continued to Sheet No. 6.565

ISSUED BY: C. R. Black, President

DATE EFFECTIVE:

Continued from Sheet No. 6.560

MINIMUM CHARGE: The sum of the customer facilities charge and program participant charge.

FUEL CHARGE: See Sheet Nos. 6.020 and 6.021.

ENERGY CONSERVATION CHARGE: See Sheet Nos. 6.020 and 6.021.

CAPACITY CHARGE: See Sheet Nos. 6.020 and 6.021.

ENVIRONMENTAL COST RECOVERY CHARGE: See Sheet Nos. 6.020 and 6.021.

FLORIDA GROSS RECEIPTS TAX: See Sheet No. 6.021.

FRANCHISE FEE CHARGE: See Sheet No. 6.021.

PAYMENT OF BILLS: See Sheet No. 6.022.

DETERMINATION OF PRICING PERIODS Pricing periods are established by season for weekdays and weekends. The pricing periods for price levels P1, P2 Ns P3 are as follows:

<u>May through October</u>	<u>P₁</u>	<u>P₂</u>	
Weekdays	11 P.M. to 6 A.M.	6 A.M. to 1 P.M. 6 P.M. to 11 P.M.	
Weekends	11 P.M. to 6 A.M.	6 A.M. to 11 P.M.	
<u>November through April:</u>	<u>P₁</u>	<u>P₂</u>	<u>P₃</u>
Weekdays	11 P.M. to 5 A.M.	5 A.M. to 6 A.M. 10 A.M. to 11 P.M.	6 A.M. to 10 A.M.
Weekends	11 P.M. to 6 A.M.	6 A.M. to 11 P.M.	-----

The pricing periods for price level P4 shall be determined at the sole discretion of the Company.

The pricing period for the following observed holidays will be the same as the weekend hour price levels for the month in which the holiday occurs: New Year's Day, Memorial Day Independence Day, Labor Day, Thanksgiving Day and Christmas Day .

TERMS OF SERVICE: The initial term of service under this rate shall be for a period of one year to be continued thereafter unless terminated by the customer with thirty days written notice.

ISSUED BY: C. R. Black, President

DATE EFFECTIVE:

INDEX OF RATE SCHEDULES

<u>Schedule</u>	<u>Classification</u>	<u>Sheet No.</u>
	Additional Billing Charges	6.020
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SBF	Firm Standby And Supplemental Service	6.600
SBFT	Time-of-Day Firm Standby And Supplemental Service (Optional)	6.605
SBI-1	Industrial Interruptible Standby And Supplemental Service	6.610
SBI-3	Interruptible Standby And Supplemental Service	6.620
CISR	Commercial / Industrial Service Rider	6.700

ISSUED BY: ~~C. R. Black~~ J. B. Ramil, President

DATE EFFECTIVE: August 28, 2004

RESIDENTIAL SERVICE VARIABLE PRICING PILOT

SCHEDULE: RSVP-1

RATE CODE: 113

AVAILABLE: Available to customers eligible for Rate Schedule RS (Residential Service). Availability is limited to single-family detached houses only that meet certain equipment requirements described below.

APPLICABLE: As an alternative to Rate Schedule RS for service used for domestic purposes at an individually-metered private residences. All energy must be for domestic purposes and should not be shared with others and resale is not permitted.

EQUIPMENT REQUIREMENTS:

1. Touch-tone phone service (Land line)
2. Service entrance panel or house power panel rated at 200 amps or less
3. Central heating and air conditioning that is compatible with Company installed energy management equipment.
4. Electric water heaters, pool pumps, or other devices controlled by equipment provided through the program must be no larger than 30 amps and 240 volts each and compatible with Company installed energy management equipment.
5. Electric wiring must be conducive to power line carrier messaging.
6. Residence must be located in an area capable of meeting a paging strength standard.
7. Existing meter configuration must be capable of incorporating the energy management equipment.

CHARACTER OF SERVICE: Available for single-phase service from local distribution lines of the Company's system at nominal secondary voltage of 120/240 volts. Service shall be metered through one metering device capable of measuring electrical energy consumption during the various times each energy demand charge is in effect.

MONTHLY RATES:

Customer Facilities Charge: \$8.50

Energy and Demand Charges:

Low Cost Hours (P ₁)	2.217	¢ per KWH
Medium Cost Hours (P ₂)	3.751	¢ per KWH
High Cost Hours (P ₃)	9.436	¢ per KWH
Critical Cost Hours (P ₄)	35.395	¢ per KWH

Continued to Sheet No. 6.565

ISSUED BY: C. R. Black, President

DATE EFFECTIVE:

Continued from Sheet No. 6.560

MINIMUM CHARGE: The sum of the customer facilities charge and program participant charge.

FUEL CHARGE: See Sheet Nos. 6.020 and 6.021.

ENERGY CONSERVATION CHARGE: See Sheet Nos. 6.020 and 6.021.

CAPACITY CHARGE: See Sheet Nos. 6.020 and 6.021.

ENVIRONMENTAL COST RECOVERY CHARGE: See Sheet Nos. 6.020 and 6.021.

FLORIDA GROSS RECEIPTS TAX: See Sheet No. 6.021.

FRANCHISE FEE CHARGE: See Sheet No. 6.021.

PAYMENT OF BILLS: See Sheet No. 6.022.

DETERMINATION OF PRICING PERIODS Pricing periods are established by season for weekdays and weekends. The pricing periods for price levels P1, P2, Ns, P3 are as follows:

May through October Weekdays	P ₁ 11 P.M. to 6 A.M.	P ₂ 6 A.M. to 1 P.M. 6 P.M. to 11 P.M.	
Weekends	11 P.M. to 6 A.M.	6 A.M. to 11 P.M.	
November through April Weekdays	P ₁ 11 P.M. to 5 A.M.	P ₂ 5 A.M. to 6 A.M. 10 A.M. to 11 P.M.	P ₃ 6 A.M. to 10 A.M.
Weekends	11 P.M. to 6 A.M.	6 A.M. to 11 P.M.	

The pricing periods for price level P4 shall be determined at the sole discretion of the Company.

The pricing period for the following observed holidays will be the same as the weekend hour price levels for the month in which the holiday occurs: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

TERMS OF SERVICE: The initial term of service under this rate shall be for a period of one year to be continued thereafter unless terminated by the customer with thirty days written notice.

ISSUED BY: C. R. Black, President

DATE EFFECTIVE:

INDEX
STANDARD FORMS

<u>DESCRIPTION OF FORM</u>	<u>SHEET NO.</u>
Tariff Agreement for the Purchase of Interruptible Service	7.100
Tariff Agreement for the Purchase of Industrial Load Management Rider Service	7.150
Bright Choices Outdoor Lighting Agreement	7.200
Tariff Agreement for the Provision of Load Management Service	7.510
Tariff Agreement for the Provision of Standby Generator Transfer Service	7.550
Tariff Agreement for the Purchase of Firm Standby and Supplemental Service	7.600
Supplemental Tariff Agreement for the Purchase of Industrial Standby and Supplemental Load Management Rider Service	7.625
Tariff Agreement for the Purchase of Interruptible Standby and Supplemental Service	7.650
State of Florida Department of Transportation - Tri-Partite Joint Project Agreement	7.700
Contract Service Arrangement for the Provision of Service Under the Commercial / Industrial Service Rider	7.750
Facilities Rental Agreement	7.760
Tariff Agreement For The Residential Price Responsive Load Management Program	7.770

ISSUED BY: C. R. Black, President

DATE EFFECTIVE:

**TARIFF AGREEMENT FOR THE RESIDENTIAL PRICE RESPONSIVE
LOAD MANAGEMENT PROGRAM**

This agreement is made and entered into this _____ day of _____, 20____, by and between _____, (hereinafter called the Customer) and Tampa Electric Company, a corporation organized in and existing under the laws of the State of Florida, (hereinafter called the Company).

WITNESSETH:

That for and in consideration of the mutual covenants and agreements expressed herein, the Company and the Customer agree as follows:

1. The Customer chooses to take service pursuant to Tampa Electric Company's Residential Price Responsive Load Management Program which has been approved by The Florida Public Service Commission. This program includes service and billing under the Company's Rate Schedule RSVP-1, on file with and approved by the Florida Public Service Commission.
2. Tampa Electric Company will provide the necessary energy management equipments for use on the Customer's premises for the duration of the contract. Customer will be responsible for any willful damages to Company-owned energy management equipment installed at the Customer's premises.
3. The Customer will provide reasonable access for installing, inspecting, testing, and/or removing Company-owned equipment. Fees, where applicable for installation and removal of Company-owned equipment, are described Rate Schedule RSVP-1 and are incorporated as part of this agreement.
4. The Customer's electrical equipment and appliances are in good working condition as determined at the sole discretion of Tampa Electric Company. Tampa Electric will not be responsible for the repair, maintenance, or replacement of the Customer's electrical equipment or appliances.
5. Billing under Rate Schedule RSVP-1 will commence after the installation, inspections, and testing of the equipment, and will continue for a period of one year and thereafter until terminated by the Customer with 30 days notice. Rate Schedule RSVP-1 is incorporated as a part of this agreement. Customer hereby acknowledges having received and reviewed the rates, terms, and conditions contained in Rate

Continued to Sheet No. 7.775

ISSUED BY: C. R. Black, President

DATE EFFECTIVE:

Continued From Sheet No. 7.770

Schedule RSVP-1. Customer understands and acknowledges that this rate schedule as well as the rates, terms, and conditions therein are subject to periodic change by the Florida Public Service Commission and such changes will be applicable to the Customer.

- 6. This agreement supersedes all previous agreements and representations, either written or oral, heretofore made between the Company and the Customer with respect to matters herein contained. Any modification(s) to this Agreement must be approved, in writing, by the Company and the Customer.

IN WITNESS THEREOF, the Customer and the Company have caused this Agreement to be executed by their duly authorized representatives as of the day and year first above written.

Customer: _____

Tampa Electric Company Representative

By/Title: _____

By/Title: _____

Signature: _____

Signature: _____

Street Address: _____

City, Street, Zip: _____

Property Owner: _____

By/Title: _____

Signature: _____

Date: _____

ISSUED BY: C. R. Black, President

DATE EFFECTIVE:

INDEX
 STANDARD FORMS

<u>DESCRIPTION OF FORM</u>	<u>SHEET NO.</u>
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**TARIFF AGREEMENT FOR THE RESIDENTIAL PRICE RESPONSIVE
LOAD MANAGEMENT PROGRAM**

This agreement is made and entered into this _____ day of _____, 20____, by and between _____ (hereinafter called the Customer) and Tampa Electric Company, a corporation organized in and existing under the laws of the State of Florida, (hereinafter called the Company).

WITNESSETH:

That for and in consideration of the mutual covenants and agreements expressed herein, the Company and the Customer agree as follows:

1. The Customer chooses to take service pursuant to Tampa Electric Company's Residential Price Responsive Load Management Program which has been approved by The Florida Public Service Commission. This program includes service and billing under the Company's Rate Schedule RSVP-1, on file with and approved by the Florida Public Service Commission.
2. Tampa Electric Company will provide the necessary energy management equipments for use on the Customer's premises for the duration of the contract. Customer will be responsible for any willful damages to Company-owned energy management equipment installed at the Customer's premises.
3. The Customer will provide reasonable access for installing, inspecting, testing, and/or removing Company-owned equipment. Fees, where applicable for installation and removal of Company-owned equipment, are described Rate Schedule RSVP-1 and are incorporated as part of this agreement.
4. The Customer's electrical equipment and appliances are in good working condition as determined at the sole discretion of Tampa Electric Company. Tampa Electric will not be responsible for the repair, maintenance, or replacement of the Customer's electrical equipment or appliances.
5. Billing under Rate Schedule RSVP-1 will commence after the installation, inspections, and testing of the equipment, and will continue for a period of one year and thereafter until terminated by the Customer with 30 days notice. Rate Schedule RSVP-1 is incorporated as a part of this agreement. Customer hereby acknowledges having received and reviewed the rates, terms, and conditions contained in Rate

Continued to Sheet No. 7.775

ISSUED BY: C. R. Black, President

DATE EFFECTIVE:

Continued From Sheet No. 7.770

Schedule RSVP-1. Customer understands and acknowledges that this rate schedule as well as the rates, terms, and conditions therein are subject to periodic change by the Florida Public Service Commission and such changes will be applicable to the Customer.

- 6. This agreement supersedes all previous agreements and representations, either written or oral, heretofore made between the Company and the Customer with respect to matters herein contained. Any modification(s) to this Agreement must be approved, in writing, by the Company and the Customer.

IN WITNESS THEREOF, the Customer and the Company have caused this Agreement to be executed by their duly authorized representatives as of the day and year first above written.

Customer: _____
 By/Title: _____
 Signature: _____
 Street Address: _____
 City, Street, Zip: _____

Tampa Electric Company Representative
 By/Title: _____
 Signature: _____

Property Owner: _____
 By/Title: _____
 Signature: _____
 Date: _____

ISSUED BY: C. R. Black, President

DATE EFFECTIVE:

Program: Residential Load Management (Prime Time)

Program Start Date: January 1981

Discussion

During the current DSM goals setting process, it was determined that Tampa Electric's existing residential load management program – Prime Time – was no longer cost-effective. However, the company recognizes that potential load may still exist in its service area and be available for inclusion in a different type of load management application. Hence, the company is filing within this overall DSM Plan a request to conduct a residential R&D pilot program on a new generation of load management called price responsive load management ("PRLM").

With the current program no longer being cost-effective and a new program looming brightly and near-term on the horizon, Tampa Electric believes it is in the best interest of customers and the company to allow a small number of customers, approximately 50-60 per month, who may want to participate in the current Prime Time program to continue to have the opportunity to do so. Typically these customers are current program participants who move across the company's service area and want to continue their participation at their new address. In addition, a small portion of the 50-60 customers learn about Prime Time by word-of-mouth and want to initiate participation and begin receiving a monthly credit on their electric bills.

The benefits of allowing these customers to participate in Prime Time while the PRLM pilot program is occurring center squarely around continuity. Specifically, the benefits include:

1. no interruption to their current participation in a load management program while a likely alternative - PRLM - is under development;
2. the elimination of lengthy telephone conversations explaining why Prime Time was discontinued and then the need to provide specifics on what the company is researching as a viable alternative;
3. the elimination of maintaining a waiting list and the subsequent contacting of those customers on the list who want to participate in the new alternative when it is available;
4. the incremental demand savings from Prime Time will continue to accrue to the company; and
5. should Prime Time regain its cost-effectiveness during the PRLM pilot program, the costs to ramp down and then ramp up the program would not occur.

Tampa Electric will no longer advertise the Prime Time program or market its availability through field or telephone personnel. The company anticipates the addition of any customers while the PRLM pilot is underway will have a minimal

impact on the expenses necessary to manage the Prime Time program. At the end of the PRLM pilot program, Tampa Electric will evaluate the cost-effectiveness of PRLM and Prime Time in order to determine the appropriate plan needed to capture the residential load management potential that still exists in the company service area.

Program Description

Prime Time is a residential load management program designed to alter Tampa Electric's system load curve by reducing summer and winter demand peaks.

Residential loads such as heating, air conditioning, water heaters and pool pumps are controlled from a radio signal initiated by Tampa Electric's Energy Control Center. This signal operates radio control switches located on individual customer homes that are wired directly to the controlled appliances. Customers participating in Prime Time receive monthly credits on their electric bill. Appliances are interrupted on a prescribed schedule unless a system emergency occurs.

Program Participation Standards

1. Applicable to any customer located in Tampa Electric's service area and served under rate schedule RS.
2. The customer must use a minimum amount of energy in order to receive full credit. Total credit cannot exceed 40% of the non-fuel energy charges actually incurred during a billing period. The initial monthly credit is determined by the date of the installation.

Maximum Credit Per Option Per Month:

Year-round Water Heater:	\$4.00 per month; interruptions not to exceed 5 hours per day
Year-round Pool Pump:	\$3.00 per month; interruptions not to exceed 5 hours per day
Winter central HVAC unit (continuous):	\$12.00 per month; interruptions not to exceed 3 hours per day
Summer central HVAC unit (cyclic):	\$6.00 per month; cyclic interruptions with a cumulative off time not to exceed 3 hours per day

Summer central HVAC unit
(continuous): \$12.00 per month; interruptions not to
exceed 3 hours per day

3. Winter is November through March. Summer is April through October.
4. The company's prime use periods for normal control are as follows:
Winter - 6:00 A.M. to 11:00 A.M. and 6:00 P.M. to 10:00 P.M.
Summer - 2:00 P.M. to 10:00 P.M.
5. The appliance must be operational during installation of load management control equipment.
6. All appliances controlled must be electric.
7. All initial credits have an office review for verification.
8. Tampa Electric will randomly perform inspections on at least 10% of all credit related work orders submitted by the contractors.
9. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Demand reduction is calculated from a load reduction algorithm on a per customer appliance basis. The overall load reduction estimate is the sum of the individual appliance loads, discounted by a Master Discount Multiplier ("MDM"). The MDM accounts for equipment malfunction, suspense customers, losses, etc. This factor is determined through a field-conducted reliability survey.

Demand:

The average demand reduction is as follows:

Summer (At 17:00 hrs; Month of June): 1.24 kW per customer

Winter (At 08:00 hrs; Month of January): 2.80 kW per customer

Energy:

Annual energy savings from the Prime Time program are negligible.

Costs:

Prime Time program costs (average per customer):

Admin, Dep & Ret, Adver, Install:	\$345.00
Maintenance (yr.):	\$14.00
Incentives (yr.):	\$118.00

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

Program: Commercial/Industrial Audit (Free)

Program Start Date: July 1983

Program Description

A conservation program designed to reduce demand and energy consumption by increasing customer awareness of energy use in their facilities. The savings are dependent upon customer implementation of audit recommendations. Recommendations are based on the replacement of less efficient equipment and systems or modifications to operations to enhance the customer's overall efficiency. Recommendations are primarily standardized and encourage the customer to implement measures that, if cost-effective, move the customer beyond the efficiency level typically installed in the marketplace.

Program Participation Standards

1. All commercial/industrial customers on firm rates within Tampa Electric's service area are eligible for an audit.
2. Program requirements for participation follow guidelines set by Rule 25-17.003, F.A.C.
3. When applicable, customers are also qualified for participation in all current commercial programs. Cost-effectiveness for these programs is generally determined while at the customer's facility.
4. There is no payment processing with this program.
5. There are no technical specifications on equipment eligibility with this program.
6. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

The kWh billing histories of customers who received commercial/industrial audits were examined in comparison to those matched unaudited customers. Matching customers were required to be on the same meter reading route and rate, and have consumption closely matched during the 12 months preceding the audit. Consumption before and after the audit was compared for both sets of customers to estimate the impact associated with the audit. Based on load research data, the consumption impacts were extrapolated into corresponding demand impacts.

Using this methodology, the savings per participant are as follows:

Demand: 0.06 kW winter
0.08 kW summer

Energy: 341 kWh annual

Based on historical costs, the cost per audit is estimated to be \$188.00. There are no rebates or incentives for this program.

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: FREE C/I AUDIT

	(a)	(b)	(c)	(d)	(e)
Year	Total Number of Customers	Total Number of Eligible Customers	Annual Number of Program Participants	Cumulative Penetration Level %	Cumulative Number of Program Participants*
2005	69,953	69,953	475	0.7%	475
2006	71,177	71,177	425	1.3%	900
2007	72,474	72,474	375	1.8%	1,275
2008	73,670	73,670	325	2.2%	1,600
2009	74,906	74,906	275	2.5%	1,875
2010	76,397	76,397	225	2.7%	2,100
2011	77,929	77,929	175	2.9%	2,275
2012	79,452	79,452	125	3.0%	2,400
2013	80,800	80,800	75	3.1%	2,475
2014	82,160	82,160	50	3.1%	2,525

* Previous participation levels not included.

PROGRAM NAME: FREE C/I AUDIT

AT THE METER						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	341	0.060	0.080	0.162	0.029	0.038
2006	341	0.060	0.080	0.307	0.054	0.072
2007	341	0.060	0.080	0.435	0.077	0.102
2008	341	0.060	0.080	0.546	0.096	0.128
2009	341	0.060	0.080	0.639	0.113	0.150
2010	341	0.060	0.080	0.716	0.126	0.168
2011	341	0.060	0.080	0.776	0.137	0.182
2012	341	0.060	0.080	0.818	0.144	0.192
2013	341	0.060	0.080	0.844	0.149	0.198
2014	341	0.060	0.080	0.861	0.152	0.202

PROGRAM NAME: FREE C/I AUDIT

AT THE GENERATOR						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	361	0.064	0.085	0.171	0.030	0.040
2006	361	0.064	0.085	0.325	0.058	0.077
2007	361	0.064	0.085	0.460	0.081	0.109
2008	361	0.064	0.085	0.577	0.102	0.136
2009	361	0.064	0.085	0.676	0.120	0.160
2010	361	0.064	0.085	0.758	0.134	0.179
2011	361	0.064	0.085	0.821	0.145	0.194
2012	361	0.064	0.085	0.866	0.153	0.204
2013	361	0.064	0.085	0.893	0.158	0.211
2014	361	0.064	0.085	0.911	0.161	0.215

Program: Comprehensive Commercial/Industrial Audit (Paid)

Program Start Date: May 1981

Program Description

A conservation program designed to reduce demand and energy by increasing customer awareness of energy use in their facilities. The paid audit may involve monitoring specific equipment within a customer's facility to determine its electric usage with respect to time of operation. Based on the results, Tampa Electric will recommend changes to save energy on equipment and/or operation. Savings are dependent on the customer implementing recommendations.

Program Participation Standards

1. All commercial/industrial customers on firm rates within Tampa Electric's service area are eligible for an audit.
2. Program requirements for participation follow guidelines set by Rule 25-17.003, F.A.C.
3. When applicable, customers are also qualified for participation in all current commercial programs. Cost-effectiveness for these programs is generally determined while at the customer's facility.
4. The charge to the customer per audit is as follows:

<u>Rate Class</u>	<u>Charge</u>
GS	\$15.00
GSD	\$45.00
GSLD	\$75.00

5. Recommendations may be made as a result of these audits that will require additional analysis and evaluation. When this occurs, the customer should contact an outside consultant or contractor for further study. If the customer requests Tampa Electric to perform the additional evaluation, the customer will be notified of the incremental testing costs and agree to the procedure and expense before testing begins.
6. Upon completion of the audit, the customer is provided a copy of the audit and an audit invoice or, upon request, key management personnel are presented with the results of the audit.
7. There is no payment processing for conservation measures with this program.

8. There are no technical specifications on equipment eligibility with this program.
9. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Savings for the Comprehensive C/I Audit are assumed to be the same as the Free C/I Audit due to the limited number of paid audits completed since the last evaluation.

Demand: 0.06 kW winter
0.08 kW summer

Energy: 341 kWh annual

Based on experience, the cost per audit is estimated to be \$806.00. There are no rebates or incentives for this program.

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: COMPREHENSIVE C/I AUDIT

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2005	69,953	69,953	1	0.0%	1
2006	71,177	71,177	1	0.0%	2
2007	72,474	72,474	1	0.0%	3
2008	73,670	73,670	1	0.0%	4
2009	74,906	74,906	1	0.0%	5
2010	76,397	76,397	1	0.0%	6
2011	77,929	77,929	1	0.0%	7
2012	79,452	79,452	1	0.0%	8
2013	80,800	80,800	1	0.0%	9
2014	82,160	82,160	1	0.0%	10

* Previous participation levels not included.

PROGRAM NAME: COMPREHENSIVE C/I AUDIT

AT THE METER						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	341	0.060	0.080	0.000	0.000	0.000
2006	341	0.060	0.080	0.001	0.000	0.000
2007	341	0.060	0.080	0.001	0.000	0.000
2008	341	0.060	0.080	0.001	0.000	0.000
2009	341	0.060	0.080	0.002	0.000	0.000
2010	341	0.060	0.080	0.002	0.000	0.000
2011	341	0.060	0.080	0.002	0.000	0.001
2012	341	0.060	0.080	0.003	0.000	0.001
2013	341	0.060	0.080	0.003	0.001	0.001
2014	341	0.060	0.080	0.003	0.001	0.001

PROGRAM NAME: COMPREHENSIVE C/I AUDIT

AT THE GENERATOR						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	361	0.064	0.085	0.000	0.000	0.000
2006	361	0.064	0.085	0.001	0.000	0.000
2007	361	0.064	0.085	0.001	0.000	0.000
2008	361	0.064	0.085	0.001	0.000	0.000
2009	361	0.064	0.085	0.002	0.000	0.000
2010	361	0.064	0.085	0.002	0.000	0.001
2011	361	0.064	0.085	0.003	0.000	0.001
2012	361	0.064	0.085	0.003	0.001	0.001
2013	361	0.064	0.085	0.003	0.001	0.001
2014	361	0.064	0.085	0.004	0.001	0.001

Program: Commercial Cooling Program

Program Start Date: July 2000

Program Description

A commercial conservation program that uses incentives for the installation of high efficiency direct expansion cooling systems in commercial buildings. The program is aimed at reducing the growth of peak demand and energy by encouraging customers to replace worn out, inefficient cooling equipment with high efficiency equipment that exceeds minimum product manufacturing standards.

Program Participation Standards

1. Any new or existing commercial/industrial customer on firm rates within Tampa Electric's service area is eligible.
2. Minimum qualifying efficiency rating (ARI rating only) is 10.0 EER.
3. The range of sizes for commercial cooling to be eligible will be from 65,000 to 240,000 Btu.
4. The HVAC contractor or customer submits a rebate request form to Tampa Electric. The form will be signed by the contractor certifying that the equipment installed is in accordance with the program standards. The customer will sign the form verifying that the equipment was installed and the incentive recipient's name and mailing address are correct.
5. Tampa Electric will randomly perform full field verifications on a minimum of 10% of the participating businesses. Forms not selected for field review will have an office verification to validate information.
6. No payment will be made until Tampa Electric inspects or reviews rebate requests.
7. The customer rebate is \$.002083 per Btu (which represents approximately \$25.00 per ton).
8. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

SRC commercial building data was used for computer simulations to determine cooling replacement savings. Based on historical information, a 13.4 ton (161,000 Btu) unit was used as a representative sample for purposes of estimating program savings and costs. HVAC systems savings are as follows:

<u>Type System</u>	<u>Winter Demand (kW)</u>	<u>Summer Demand (kW)</u>	<u>Annual Energy (kWh)</u>
161,000 Btu	0.00 kW/ton	1.38	5,494

Costs:

Incentive cost per participant:	\$335.00
Administrative cost per participant:	\$24.00

Program Monitoring and Evaluation

Tampa Electric utilized the engineering estimates and computer modeling from the SRC study for the demand and energy savings of the program. Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: COMMERCIAL COOLING

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2005	69,953	69,953	45	0.1%	45
2006	71,177	71,177	40	0.1%	85
2007	72,474	72,474	35	0.2%	120
2008	73,670	73,670	30	0.2%	150
2009	74,906	74,906	25	0.2%	175
2010	76,397	76,397	25	0.3%	200
2011	77,929	77,929	20	0.3%	220
2012	79,452	79,452	15	0.3%	235
2013	80,800	80,800	10	0.3%	245
2014	82,160	82,160	5	0.3%	250

* Previous participation levels not included.

PROGRAM NAME: COMMERCIAL COOLING

AT THE METER						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	5,494	0.000	1.380	0.247	0.000	0.062
2006	5,494	0.000	1.380	0.467	0.000	0.117
2007	5,494	0.000	1.380	0.659	0.000	0.166
2008	5,494	0.000	1.380	0.824	0.000	0.207
2009	5,494	0.000	1.380	0.961	0.000	0.242
2010	5,494	0.000	1.380	1.099	0.000	0.276
2011	5,494	0.000	1.380	1.209	0.000	0.304
2012	5,494	0.000	1.380	1.291	0.000	0.324
2013	5,494	0.000	1.380	1.346	0.000	0.338
2014	5,494	0.000	1.380	1.374	0.000	0.345

PROGRAM NAME: COMMERCIAL COOLING

AT THE GENERATOR						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	5813	0.000	1.470	0.262	0.000	0.066
2006	5813	0.000	1.470	0.494	0.000	0.125
2007	5813	0.000	1.470	0.698	0.000	0.176
2008	5813	0.000	1.470	0.872	0.000	0.220
2009	5813	0.000	1.470	1.017	0.000	0.257
2010	5813	0.000	1.470	1.163	0.000	0.294
2011	5813	0.000	1.470	1.279	0.000	0.323
2012	5813	0.000	1.470	1.366	0.000	0.345
2013	5813	0.000	1.470	1.424	0.000	0.360
2014	5813	0.000	1.470	1.453	0.000	0.367

INPUT DATA - PART 1
PROGRAM TITLE: Commercial Cooling

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PROGRAM DEMAND SAVINGS & LINE LOSSES

I. (1) CUSTOMER KW REDUCTION AT THE METER	1.38 KW /CUST
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	1.253 KW GEN/CUST
I. (3) KW LINE LOSS PERCENTAGE	6.5 %
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	5832 KWH/CUST/YR
I. (5) KWH LINE LOSS PERCENTAGE	5.8 %
I. (6) GROUP LINE LOSS MULTIPLIER	1
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR
I. (8)* CUSTOMER KWH REDUCTION AT METER	5494 KWH/CUST/YR

ECONOMIC LIFE & K FACTORS

II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	15 YEARS
II. (2) GENERATOR ECONOMIC LIFE	26 YEARS
II. (3) T & D ECONOMIC LIFE	26 YEARS
II. (4) K FACTOR FOR GENERATION	1.6926
II. (5) K FACTOR FOR T & D	1.6926
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1

UTILITY & CUSTOMER COSTS

III. (1) UTILITY NONRECURRING COST PER CUSTOMER	24.00 \$/CUST
III. (2) UTILITY RECURRING COST PER CUSTOMER	0.00 \$/CUST/YR
III. (3) UTILITY COST ESCALATION RATE	2.5 %
III. (4) CUSTOMER EQUIPMENT COST	1994.00 \$/CUST
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	2.5 %
III. (6) CUSTOMER O & M COST	0 \$/CUST/YR
III. (7) CUSTOMER O & M ESCALATION RATE	2.5 %
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	0 %
III. (10)* INCREASED SUPPLY COSTS	0 \$/CUST/YR
III. (11)* SUPPLY COSTS ESCALATION RATE	0 %
III. (12)* UTILITY DISCOUNT RATE	0.0939
III. (13)* UTILITY AFUDC RATE	0.0779
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	335.00 \$/CUST
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	0.00 \$/CUST/YR
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0 %

AVOIDED GENERATOR, TRANS. & DIST COSTS

IV. (1) BASE YEAR	2005
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2008
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D	2008
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST	230.18 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST	0 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3 %
IV. (8) GENERATOR FIXED O & M COST	2.544 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE	2.5 %
IV. (10) TRANSMISSION FIXED O & M COST	0 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST	0 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE	2.5 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.8135 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.5 %
IV. (15) GENERATOR CAPACITY FACTOR	5.5 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST	6.27 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE	1.43 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW	0 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE	0 %

NON-FUEL ENERGY AND DEMAND CHARGES

V. (1) NON-FUEL COST IN CUSTOMER BILL	1.370 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE	1 %
V. (3) CUSTOMER DEMAND CHARGE PER KW	7.25 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE	1 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1

CALCULATED BENEFITS AND COSTS	
(1)* TRC TEST - BENEFIT/COST RATIO	1.34
(2)* PARTICIPANT NET BENEFITS (NPV)	154
(3)* RIM TEST - BENEFIT/COST RATIO	1.39

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TOTAL RESOURCE COST TESTS
PROGRAM: Commercial Cooling

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)	
2005	0	1	90	0	91	0	0	5	0	5	(86)	(86)	
2006	0	1	82	0	83	0	0	15	0	15	(68)	(149)	
2007	0	1	73	0	74	0	0	25	0	25	(49)	(190)	
2008	0	0	0	0	0	11	0	29	0	40	40	(159)	
2009	0	0	0	0	0	11	0	26	0	37	37	(133)	
2010	0	0	0	0	0	11	0	35	0	46	46	(104)	
2011	0	0	0	0	0	12	0	37	0	49	49	(75)	
2012	0	0	0	0	0	12	0	37	0	49	49	(49)	
2013	0	0	0	0	0	12	0	33	0	45	45	(27)	
2014	0	0	0	0	0	12	0	35	0	47	47	(6)	
2015	0	0	0	0	0	12	0	35	0	48	48	13	
2016	0	0	0	0	0	13	0	38	0	50	50	32	
2017	0	0	0	0	0	13	0	37	0	49	49	49	
2018	0	0	0	0	0	13	0	36	0	50	50	64	
2019	0	0	0	0	0	13	0	35	0	48	48	78	
NOMINAL	0	3	245	0	248	145	0	457	0	603	355		
NPV:	0	3	226	0	228	70	0	237	0	307	78		
Discount Rate		0.0939	Benefit/Cost Ratio - [col (11)/col (6)]:				1.34						

RATE IMPACT TEST
PROGRAM: Commercial Cooling

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS TO ALL CUSTOMERS \$(000)	CUMULATIVE DISCOUNTED NET BENEFIT \$(000)
2005	0	1	15	4	0	21	5	0	0	0	5	(16)	(16)
2006	0	1	13	13	0	27	15	0	0	0	15	(13)	(28)
2007	0	1	12	20	0	33	25	0	0	0	25	(8)	(34)
2008	0	0	0	24	0	24	40	0	0	0	40	16	(22)
2009	0	0	0	24	0	24	37	0	0	0	37	13	(13)
2010	0	0	0	25	0	25	46	0	0	0	46	22	0
2011	0	0	0	25	0	25	49	0	0	0	49	24	14
2012	0	0	0	25	0	25	49	0	0	0	49	24	27
2013	0	0	0	25	0	25	45	0	0	0	45	20	37
2014	0	0	0	26	0	26	47	0	0	0	47	22	46
2015	0	0	0	26	0	26	48	0	0	0	48	22	55
2016	0	0	0	26	0	26	50	0	0	0	50	24	64
2017	0	0	0	26	0	26	49	0	0	0	49	23	72
2018	0	0	0	27	0	27	50	0	0	0	50	23	79
2019	0	0	0	27	0	27	48	0	0	0	48	21	85
NOMINAL	0	3	40	344	0	387	603	0	0	0	603	216	
NPV:	0	3	37	181	0	221	307	0	0	0	307	85	
Discount rate:			0.0939										
													Benefit/Cost Ratio - [col (12)/col (7)]: 1.39

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Program: Commercial Indoor Lighting Program

Program Start Date: January 1991

Program Description

An incentive program for existing commercial facilities to encourage investment in more efficient fluorescent lighting technology within conditioned space. Specifically, this program is designed to: 1) affect a significant number of eligible customers; 2) recognize the most probable lighting investment opportunities; and 3) contribute toward weather-sensitive peak demand reduction.

Program Participation Standards

1. Any commercial/industrial customer on firm rates meeting the company's requirements for participation is eligible.
2. A minimum of one kW in lighting reduction must be achieved.
3. Reductions in lighting energy caused only by fixture/lamp removal, operational changes, or by "add-on" energy saving devices are not eligible.
4. Retrofit upgrades shall be permanent installations. Due to the lack of permanency, lamp replacements only do not qualify. Delamping installations will require that reflectors be incorporated unless a high output ballast is used in the installation. Delamping / reflector installations will require the removal of spare ballast and lampholders.
5. Only dedicated ballast and lamp systems will be eligible for rebate (i.e., ballast will be designed to operate one specific type and wattage lamp). Ballasts designed to operate multiple wattage lamp types are not eligible (i.e., T-8 lamp and ballast, T-10 lamps and ballast, etc., must be a system where the ballast will only operate the specific lamp installed at time of retrofit).
6. Compact fluorescent lamps and exit sign replacements / retrofits are excluded from this program.
7. Ballasts must have total harmonic distortion levels of less than 20% as tested by ETL Testing Laboratory.
8. The customer submits a rebate request form to Tampa Electric with invoice(s) of lighting systems purchase(s).

9. Tampa Electric will randomly perform full field verifications on a minimum of 10% of the participating businesses. Forms not selected for field review will have an office verification to validate information.
10. No payment will be made until Tampa Electric verifies or validates incentive certificates.
11. Customer rebate is \$0.10 per watt reduction for replacing current lighting system with more efficient lighting system within conditioned space.
12. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Based on historical participation, savings per customer is estimated at 40.82 kW/14.16 kW for summer and winter, respectively, and 175,336 kWh per year energy savings based on an average of 800 fixtures. These calculated values include the effects of the lighting reduction on the space cooling and heating equipment.

Incentive costs per customer based on 800 fixtures and \$.10 per watt are \$3,248.00 for replacing a standard fluorescent lighting system with a more efficient fluorescent lighting system. Administrative costs are \$358.00 per customer.

Program Monitoring and Evaluation

Data necessary to substantiate the kW/kWh savings and demand coincidence will be contained on the customer's rebate analysis worksheet that accompanies the rebate application. Sampling with data loggers to confirm operating hours and kWh estimates may be used.

Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: COMMERCIAL INDOOR LIGHTING PROGRAM

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2005	69,953	69,953	38	0.1%	38
2006	71,177	71,177	35	0.1%	73
2007	72,474	72,474	32	0.1%	105
2008	73,670	73,670	29	0.2%	134
2009	74,906	74,906	26	0.2%	160
2010	76,397	76,397	20	0.2%	180
2011	77,929	77,929	17	0.3%	197
2012	79,452	79,452	14	0.3%	211
2013	80,800	80,800	11	0.3%	222
2014	82,160	82,160	8	0.3%	230

* Previous participation levels not included.

PROGRAM NAME: COMMERCIAL INDOOR LIGHTING PROGRAM

AT THE METER						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	175,336	14.160	40.820	6.663	0.538	1.551
2006	175,336	14.160	40.820	12.800	1.034	2.980
2007	175,336	14.160	40.820	18.410	1.487	4.286
2008	175,336	14.160	40.820	23.495	1.897	5.470
2009	175,336	14.160	40.820	28.054	2.266	6.531
2010	175,336	14.160	40.820	31.560	2.549	7.348
2011	175,336	14.160	40.820	34.541	2.790	8.042
2012	175,336	14.160	40.820	36.996	2.988	8.613
2013	175,336	14.160	40.820	38.925	3.144	9.062
2014	175,336	14.160	40.820	40.327	3.257	9.389

PROGRAM NAME: COMMERCIAL INDOOR LIGHTING PROGRAM

Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	185,505	15.080	43.473	7.049	0.573	1.652
2006	185,505	15.080	43.473	13.542	1.101	3.174
2007	185,505	15.080	43.473	19.478	1.583	4.565
2008	185,505	15.080	43.473	24.858	2.021	5.825
2009	185,505	15.080	43.473	29.681	2.413	6.956
2010	185,505	15.080	43.473	33.391	2.714	7.825
2011	185,505	15.080	43.473	36.545	2.971	8.564
2012	185,505	15.080	43.473	39.142	3.182	9.173
2013	185,505	15.080	43.473	41.182	3.348	9.651
2014	185,505	15.080	43.473	42.666	3.468	9.999

INPUT DATA - PART 1
PROGRAM TITLE: Indoor Lighting

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PROGRAM DEMAND SAVINGS & LINE LOSSES

I. (1) CUSTOMER KW REDUCTION AT THE METER	40.82 KW /CUST
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	39.881 KW GEN/CUST
I. (3) KW LINE LOSS PERCENTAGE	6.5 %
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	186132 KWH/CUST/YR
I. (5) KWH LINE LOSS PERCENTAGE	5.8 %
I. (6) GROUP LINE LOSS MULTIPLIER	1
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR
I. (8)* CUSTOMER KWH REDUCTION AT METER	175336 KWH/CUST/YR

ECONOMIC LIFE & K FACTORS

II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	15 YEARS
II. (2) GENERATOR ECONOMIC LIFE	26 YEARS
II. (3) T & D ECONOMIC LIFE	26 YEARS
II. (4) K FACTOR FOR GENERATION	1.6926
II. (5) K FACTOR FOR T & D	1.6926
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1

UTILITY & CUSTOMER COSTS

III. (1) UTILITY NONRECURRING COST PER CUSTOMER	358.00 \$/CUST
III. (2) UTILITY RECURRING COST PER CUSTOMER	0.00 \$/CUST/YR
III. (3) UTILITY COST ESCALATION RATE	2.5 %
III. (4) CUSTOMER EQUIPMENT COST	39836.00 \$/CUST
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	2.5 %
III. (6) CUSTOMER O & M COST	0 \$/CUST/YR
III. (7) CUSTOMER O & M ESCALATION RATE	2.5 %
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	0 %
III. (10)* INCREASED SUPPLY COSTS	0 \$/CUST/YR
III. (11)* SUPPLY COSTS ESCALATION RATE	0 %
III. (12)* UTILITY DISCOUNT RATE	0.0939
III. (13)* UTILITY AFUDC RATE	0.0779
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	3248.00 \$/CUST
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	0.00 \$/CUST/YR
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0 %

AVOIDED GENERATOR, TRANS. & DIST COSTS

IV. (1) BASE YEAR	2005
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2008
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D	2008
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST	230.18 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST	0 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3 %
IV. (8) GENERATOR FIXED O & M COST	2.544 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE	2.5 %
IV. (10) TRANSMISSION FIXED O & M COST	0 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST	0 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE	2.5 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.8135 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.5 %
IV. (15) GENERATOR CAPACITY FACTOR	5.5 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST	6.27 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE	1.43 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW	0 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE	0 %

NON-FUEL ENERGY AND DEMAND CHARGES

V. (1) NON-FUEL COST IN CUSTOMER BILL	1.370 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE	1 %
V. (3) CUSTOMER DEMAND CHARGE PER KW	7.25 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE	1 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1

CALCULATED BENEFITS AND COSTS	
(1)* TRC TEST - BENEFIT/COST RATIO	1.68
(2)* PARTICIPANT NET BENEFITS (NPV)	5,695
(3)* RIM TEST - BENEFIT/COST RATIO	1.29

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TOTAL RESOURCE COST TESTS
PROGRAM: Indoor Lighting

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)	
2005	0	14	1,514	0	1,527	0	0	98	0	98	(1,430)	(1,430)	
2006	0	13	1,429	0	1,442	0	0	310	0	310	(1,132)	(2,465)	
2007	0	12	1,339	0	1,351	0	0	541	0	541	(810)	(3,142)	
2008	0	0	0	0	0	237	0	634	0	870	870	(2,477)	
2009	0	0	0	0	0	241	0	568	0	809	809	(1,912)	
2010	0	0	0	0	0	246	0	762	0	1,008	1,008	(1,268)	
2011	0	0	0	0	0	251	0	808	0	1,059	1,059	(650)	
2012	0	0	0	0	0	256	0	812	0	1,068	1,068	(80)	
2013	0	0	0	0	0	261	0	730	0	990	990	403	
2014	0	0	0	0	0	266	0	763	0	1,029	1,029	862	
2015	0	0	0	0	0	271	0	768	0	1,039	1,039	1,285	
2016	0	0	0	0	0	276	0	820	0	1,096	1,096	1,694	
2017	0	0	0	0	0	282	0	797	0	1,078	1,078	2,061	
2018	0	0	0	0	0	287	0	793	0	1,080	1,080	2,397	
2019	0	0	0	0	0	293	0	756	0	1,049	1,049	2,696	
NOMINAL	0	38	4,282	0	4,321	3,165	0	9,961	0	13,126	8,805		
NPV:	0	35	3,939	0	3,975	1,516	0	5,154	0	6,671	2,696		
Discount Rate		0.0939	Benefit/Cost Ratio - [col (11)/col (6)]:				1.68						

PARTICIPANT COSTS AND BENEFITS
PROGRAM: Indoor Lighting

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILL \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O & M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2005	207	0	123	0	331	1,514	0	0	1,514	(1,183)	(1,183)
2006	631	0	114	0	745	1,429	0	0	1,429	(684)	(1,809)
2007	1,041	0	104	0	1,145	1,339	0	0	1,339	(195)	(1,971)
2008	1,244	0	0	0	1,244	0	0	0	0	1,244	(1,021)
2009	1,200	0	0	0	1,200	0	0	0	0	1,200	(182)
2010	1,344	0	0	0	1,344	0	0	0	0	1,344	676
2011	1,380	0	0	0	1,380	0	0	0	0	1,380	1,481
2012	1,371	0	0	0	1,371	0	0	0	0	1,371	2,213
2013	1,254	0	0	0	1,254	0	0	0	0	1,254	2,824
2014	1,318	0	0	0	1,318	0	0	0	0	1,318	3,412
2015	1,286	0	0	0	1,286	0	0	0	0	1,286	3,936
2016	1,344	0	0	0	1,344	0	0	0	0	1,344	4,437
2017	1,349	0	0	0	1,349	0	0	0	0	1,349	4,896
2018	1,362	0	0	0	1,362	0	0	0	0	1,362	5,321
2019	1,316	0	0	0	1,316	0	0	0	0	1,316	5,695
NOMINAL	17,648	0	341	0	17,989	4,282	0	0	4,282	13,707	
NPV:	9,320	0	314	0	9,635	3,939	0	0	3,939	5,695	
In service year of gen unit:			2004								
Discount rate:			0.0939								

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RATE IMPACT TEST
PROGRAM: Indoor Lighting

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT T & D BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS TO ALL CUSTOMERS \$(000)	CUMULATIVE DISCOUNTED NET BENEFIT \$(000)
2005	0	14	123	113	0	250	98	0	0	0	98	(152)	(152)
2006	0	13	114	334	0	460	310	0	0	0	310	(150)	(290)
2007	0	12	104	541	0	656	541	0	0	0	541	(115)	(386)
2008	0	0	0	644	0	644	870	0	0	0	870	226	(213)
2009	0	0	0	650	0	650	809	0	0	0	809	159	(103)
2010	0	0	0	657	0	657	1,008	0	0	0	1,008	351	122
2011	0	0	0	664	0	664	1,059	0	0	0	1,059	396	352
2012	0	0	0	670	0	670	1,068	0	0	0	1,068	398	565
2013	0	0	0	677	0	677	990	0	0	0	990	313	717
2014	0	0	0	684	0	684	1,029	0	0	0	1,029	345	871
2015	0	0	0	691	0	691	1,039	0	0	0	1,039	349	1014
2016	0	0	0	697	0	697	1,096	0	0	0	1,096	399	1162
2017	0	0	0	704	0	704	1,078	0	0	0	1,078	374	1290
2018	0	0	0	711	0	711	1,080	0	0	0	1,080	369	1404
2019	0	0	0	719	0	719	1,049	0	0	0	1,049	330	1498
NOMINAL	0	38	341	9,156	0	9,535	13,126	0	0	0	13,126	3,591	
NPV:	0	35	314	4,823	0	5,172	6,671	0	0	0	6,671	1,498	
Discount rate:			0.0939				Benefit/Cost Ratio - [col (12)/col (7)]:		1.29				

Program: Commercial Load Management

Program Start Date: January 1988

Program Description

Tampa Electric's Commercial Load Management Program is intended to help alter the company's system load curve by reducing summer and winter demand peaks.

Large loads such as walk-in freezers are interrupted for up to three hours by radio controlled switches similar to those used in the residential load management. Commercial air conditioning equipment is cycled during summer control periods. Monthly incentive credits are paid to customers participating in this program.

Program Participation Standards

1. Cyclic air conditioning control is applicable to any customer served under rate schedule GS, GSD, and GSLD located in Tampa Electric's service area that signs a tariff agreement for load management service.
2. Extended control is applicable to any customer under rate schedule GS, GST, GSD, GSDT, GSLD and GSLDT located in Tampa Electric's service area who signs a tariff agreement for load management service.
3. Cyclic incentive is \$1.00 per kW demand per summer month for all appliances on program and is applied to the monthly bill.
4. Extended incentive is \$3.00 per kW demand per month for all appliances on program and is applied to the monthly bill.
5. Winter is November through March. Summer is April through October.
6. The company's prime use periods for normal control are as follows:
Winter - 6:00 A.M. to 11:00 A.M. and 6:00 P.M. to 10:00 P.M.
Summer - 2:00 P.M. to 10:00 P.M.
7. The initial credit is determined by the verification date.
8. Tampa Electric will perform field verifications on all installations.
9. Cyclic control is available only for the summer season.
10. All appliances controlled must be electric.

11. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Demand reduction for the extended control commercial customers is continuously metered. This is necessary to determine the monthly credit for each participant. Demand reduction for cyclic control customers is determined at time of installation through equipment performance evaluation.

Demand:

The average demand reduction per customer is as follows:

Summer (At 17:00 hrs; 91 degrees F; June)	13.20 kW cyclic control 92.00 kW extended control
Winter (At 08:00 hrs; 31 degrees F; January)	0.00 kW cyclic control 60.00 kW extended control

Energy: Annual energy savings from the program are negligible.

Costs: Costs are based on present per customer averages.

	<u>Cyclic</u>	<u>Extended</u>
Admin, Dep & Ret, Adver, Install:	\$820	\$2,307
Maintenance (yr.):	\$16	\$568
Incentives (yr.):	\$154	\$2,832

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: COMMERCIAL LOAD MANAGEMENT - CYCLIC

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2005	69,953	69,937	1	0.0%	1
2006	71,177	71,160	1	0.0%	2
2007	72,474	72,456	1	0.0%	3
2008	73,670	73,651	1	0.0%	4
2009	74,906	74,886	1	0.0%	5
2010	76,397	76,376	1	0.0%	6
2011	77,929	77,907	1	0.0%	7
2012	79,452	79,429	1	0.0%	8
2013	80,800	80,776	1	0.0%	9
2014	82,160	82,135	1	0.0%	10

* Previous participation levels not included.

PROGRAM NAME: COMMERCIAL LOAD MANAGEMENT - CYCLIC

AT THE METER						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	0	0.000	13.200	0.000	0.000	0.013
2006	0	0.000	13.200	0.000	0.000	0.026
2007	0	0.000	13.200	0.000	0.000	0.040
2008	0	0.000	13.200	0.000	0.000	0.053
2009	0	0.000	13.200	0.000	0.000	0.066
2010	0	0.000	13.200	0.000	0.000	0.079
2011	0	0.000	13.200	0.000	0.000	0.092
2012	0	0.000	13.200	0.000	0.000	0.106
2013	0	0.000	13.200	0.000	0.000	0.119
2014	0	0.000	13.200	0.000	0.000	0.132

PROGRAM NAME: COMMERCIAL LOAD MANAGEMENT - CYCLIC

AT THE GENERATOR						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	0	0.000	14.058	0.000	0.000	0.014
2006	0	0.000	14.058	0.000	0.000	0.028
2007	0	0.000	14.058	0.000	0.000	0.042
2008	0	0.000	14.058	0.000	0.000	0.056
2009	0	0.000	14.058	0.000	0.000	0.070
2010	0	0.000	14.058	0.000	0.000	0.084
2011	0	0.000	14.058	0.000	0.000	0.098
2012	0	0.000	14.058	0.000	0.000	0.112
2013	0	0.000	14.058	0.000	0.000	0.127
2014	0	0.000	14.058	0.000	0.000	0.141

INPUT DATA - PART 1
PROGRAM TITLE: Commercial L. M. Cyclic

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PROGRAM DEMAND SAVINGS & LINE LOSSES

I. (1) CUSTOMER KW REDUCTION AT THE METER	13.2 KW /CUST
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	11.984 KW GEN/CUST
I. (3) KW LINE LOSS PERCENTAGE	6.5 %
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	0 KWH/CUST/YR
I. (5) KWH LINE LOSS PERCENTAGE	5.8 %
I. (6) GROUP LINE LOSS MULTIPLIER	1
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR
I. (8)* CUSTOMER KWH REDUCTION AT METER	0 KWH/CUST/YR

ECONOMIC LIFE & K FACTORS

II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	26 YEARS
II. (2) GENERATOR ECONOMIC LIFE	26 YEARS
II. (3) T & D ECONOMIC LIFE	26 YEARS
II. (4) K FACTOR FOR GENERATION	1.6926
II. (5) K FACTOR FOR T & D	1.6926
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	0

UTILITY & CUSTOMER COSTS

III. (1) UTILITY NONRECURRING COST PER CUSTOMER	820.00 \$/CUST
III. (2) UTILITY RECURRING COST PER CUSTOMER	16.00 \$/CUST/YR
III. (3) UTILITY COST ESCALATION RATE	2.5 %
III. (4) CUSTOMER EQUIPMENT COST	0.00 \$/CUST
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	2.5 %
III. (6) CUSTOMER O & M COST	0 \$/CUST/YR
III. (7) CUSTOMER O & M ESCALATION RATE	2.5 %
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	0 %
III. (10)* INCREASED SUPPLY COSTS	0 \$/CUST/YR
III. (11)* SUPPLY COSTS ESCALATION RATE	0 %
III. (12)* UTILITY DISCOUNT RATE	0.0939
III. (13)* UTILITY AFUDC RATE	0.0779
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00 \$/CUST
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	154.00 \$/CUST/YR
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0 %

AVOIDED GENERATOR, TRANS. & DIST COSTS

IV. (1) BASE YEAR	2005
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2008
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D	2008
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST	230.18 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST	0 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3 %
IV. (8) GENERATOR FIXED O & M COST	2.544 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE	2.5 %
IV. (10) TRANSMISSION FIXED O & M COST	0 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST	0 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE	2.5 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.8135 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.5 %
IV. (15) GENERATOR CAPACITY FACTOR	5.5 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST	6.27 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE	1.43 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW	0 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE	0 %

NON-FUEL ENERGY AND DEMAND CHARGES

V. (1) NON-FUEL COST IN CUSTOMER BILL	1.370 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE	1 %
V. (3) CUSTOMER DEMAND CHARGE PER KW	7.25 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE	1 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	0

CALCULATED BENEFITS AND COSTS	
(1)* TRC TEST - BENEFIT/COST RATIO	8.33
(2)* PARTICIPANT NET BENEFITS (NPV)	4
(3)* RIM TEST - BENEFIT/COST RATIO	3.38

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TOTAL RESOURCE COST TESTS
PROGRAM: Commercial L. M. Cyclic

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)	
2005	0	1	0	0	1	0	0	0	0	0	(1)	(1)	
2006	0	1	0	0	1	0	0	0	0	0	(1)	(2)	
2007	0	1	0	0	1	0	0	0	0	0	(1)	(2)	
2008	0	0	0	0	0	3	0	0	0	3	3	0	
2009	0	0	0	0	0	3	0	0	0	3	3	2	
2010	0	0	0	0	0	3	0	0	0	3	3	5	
2011	0	0	0	0	0	3	0	0	0	3	3	6	
2012	0	0	0	0	0	3	0	0	0	3	3	8	
2013	0	0	0	0	0	3	0	0	0	3	3	10	
2014	0	0	0	0	0	3	0	0	0	3	3	11	
2015	0	0	0	0	0	3	0	0	0	3	3	12	
2016	0	0	0	0	0	3	0	0	0	3	3	13	
2017	0	0	0	0	0	3	0	0	0	3	3	14	
2018	0	0	0	0	0	3	0	0	0	3	3	15	
2019	0	0	0	0	0	3	0	0	0	3	3	16	
2020	0	0	0	0	0	3	0	0	0	3	3	17	
2021	0	0	0	0	0	3	0	0	0	3	3	17	
2022	0	0	0	0	0	3	0	0	0	3	3	18	
2023	0	0	0	0	0	3	0	0	0	3	3	18	
2024	0	0	0	0	0	3	0	0	0	3	3	19	
2025	0	0	0	0	0	3	0	0	0	3	3	19	
2026	0	0	0	0	0	3	0	0	0	3	3	20	
2027	0	0	0	0	0	3	0	0	0	3	3	20	
2028	0	0	0	0	0	3	0	0	0	3	3	20	
2029	0	0	0	0	0	3	0	0	0	3	3	21	
2030	0	0	0	0	0	3	0	0	0	3	3	21	
NOMINAL	0	4	0	0	4	68	0	0	0	68	64		
NPV:	0	3	0	0	3	24	0	0	0	24	21		
Discount Rate		0.0939	Benefit/Cost Ratio - [col (11)/col (6)]:					8.33					

PARTICIPANT COSTS AND BENEFITS
PROGRAM: Commercial L. M. Cyclic

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILL \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O & M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2005	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	1
2008	0	0	0	0	0	0	0	0	0	0	1
2009	0	0	0	0	0	0	0	0	0	0	1
2010	0	0	0	0	0	0	0	0	0	0	2
2011	0	0	0	0	0	0	0	0	0	0	2
2012	0	0	0	0	0	0	0	0	0	0	2
2013	0	0	0	0	0	0	0	0	0	0	2
2014	0	0	0	0	0	0	0	0	0	0	3
2015	0	0	0	0	0	0	0	0	0	0	3
2016	0	0	0	0	0	0	0	0	0	0	3
2017	0	0	0	0	0	0	0	0	0	0	3
2018	0	0	0	0	0	0	0	0	0	0	3
2019	0	0	0	0	0	0	0	0	0	0	3
2020	0	0	0	0	0	0	0	0	0	0	3
2021	0	0	0	0	0	0	0	0	0	0	4
2022	0	0	0	0	0	0	0	0	0	0	4
2023	0	0	0	0	0	0	0	0	0	0	4
2024	0	0	0	0	0	0	0	0	0	0	4
2025	0	0	0	0	0	0	0	0	0	0	4
2026	0	0	0	0	0	0	0	0	0	0	4
2027	0	0	0	0	0	0	0	0	0	0	4
2028	0	0	0	0	0	0	0	0	0	0	4
2029	0	0	0	0	0	0	0	0	0	0	4
2030	0	0	0	0	0	0	0	0	0	0	4
NOMINAL	0	0	11	0	11	0	0	0	0	11	
NPV:	0	0	4	0	4	0	0	0	0	4	

In service year of gen unit: 2004
Discount rate: 0.0939

RATE IMPACT TEST
PROGRAM: Commercial L. M. Cyclic

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT UNIT & FUEL BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS TO ALL CUSTOMERS \$(000)	CUMULATIVE DISCOUNTED NET BENEFIT \$(000)
2005	0	1	0	0	0	1	0	0	0	0	0	(1)	(1)
2006	0	1	0	0	0	1	0	0	0	0	0	(1)	(2)
2007	0	1	0	0	0	1	0	0	0	0	0	(1)	(3)
2008	0	0	0	0	0	1	3	0	0	0	3	3	(1)
2009	0	0	0	0	0	1	3	0	0	0	3	3	1
2010	0	0	0	0	0	1	3	0	0	0	3	3	3
2011	0	0	0	0	0	1	3	0	0	0	3	3	5
2012	0	0	0	0	0	1	3	0	0	0	3	3	6
2013	0	0	0	0	0	1	3	0	0	0	3	3	7
2014	0	0	0	0	0	1	3	0	0	0	3	3	8
2015	0	0	0	0	0	1	3	0	0	0	3	3	9
2016	0	0	0	0	0	1	3	0	0	0	3	2	10
2017	0	0	0	0	0	1	3	0	0	0	3	2	11
2018	0	0	0	0	0	1	3	0	0	0	3	2	12
2019	0	0	0	0	0	1	3	0	0	0	3	2	13
2020	0	0	0	0	0	1	3	0	0	0	3	2	13
2021	0	0	0	0	0	1	3	0	0	0	3	2	14
2022	0	0	0	0	0	1	3	0	0	0	3	2	14
2023	0	0	0	0	0	1	3	0	0	0	3	2	15
2024	0	0	0	0	0	1	3	0	0	0	3	2	15
2025	0	0	0	0	0	1	3	0	0	0	3	2	15
2026	0	0	0	0	0	1	3	0	0	0	3	2	16
2027	0	0	0	0	0	1	3	0	0	0	3	2	16
2028	0	0	0	0	0	1	3	0	0	0	3	2	16
2029	0	0	0	0	0	1	3	0	0	0	3	2	17
2030	0	0	0	0	0	1	3	0	0	0	3	2	17
NOMINAL	0	4	11	0	0	15	68	0	0	0	68	52	
NPV:	0	3	4	0	0	7	24	0	0	0	24	17	
Discount rate:			0.0939				Benefit/Cost Ratio - [col (12)/col (7)]:				3.38		

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PROGRAM NAME: COMMERCIAL LOAD MANAGEMENT - EXTENDED

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2005	69,953	69,949	1	0.0%	1
2006	71,177	71,172	1	0.0%	2
2007	72,474	72,468	1	0.0%	3
2008	73,670	73,663	1	0.0%	4
2009	74,906	74,898	1	0.0%	5
2010	76,397	76,388	1	0.0%	6
2011	77,929	77,919	1	0.0%	7
2012	79,452	79,441	1	0.0%	8
2013	80,800	80,788	1	0.0%	9
2014	82,160	82,147	1	0.0%	10

* Previous participation levels not included.

PROGRAM NAME: COMMERCIAL LOAD MANAGEMENT - EXTENDED

Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	0	60.000	92.000	0.000	0.060	0.092
2006	0	60.000	92.000	0.000	0.120	0.184
2007	0	60.000	92.000	0.000	0.180	0.276
2008	0	60.000	92.000	0.000	0.240	0.368
2009	0	60.000	92.000	0.000	0.300	0.460
2010	0	60.000	92.000	0.000	0.360	0.552
2011	0	60.000	92.000	0.000	0.420	0.644
2012	0	60.000	92.000	0.000	0.480	0.736
2013	0	60.000	92.000	0.000	0.540	0.828
2014	0	60.000	92.000	0.000	0.600	0.920

PROGRAM NAME: COMMERCIAL LOAD MANAGEMENT - EXTENDED

AT THE GENERATOR						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	0	63.900	97.980	0.000	0.064	0.098
2006	0	63.900				0.196
2007	0	63.900				0.294
2008	0	63.900	97.980	0.000	0.256	0.392
2009	0	63.900	97.980	0.000	0.320	0.490
2010	0	63.900	97.980	0.000	0.383	0.588
2011	0	63.900	97.980	0.000	0.447	0.686
2012	0	63.900	97.980	0.000	0.511	0.784
2013	0	63.900	97.980	0.000	0.575	0.882
2014	0	63.900	97.980	0.000	0.639	0.980

INPUT DATA - PART 1
PROGRAM TITLE: Commercial L. M. Extended

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PROGRAM DEMAND SAVINGS & LINE LOSSES

I. (1) CUSTOMER KW REDUCTION AT THE METER	92 KW /CUST
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	95.482 KW GEN/CUST
I. (3) KW LINE LOSS PERCENTAGE	6.5 %
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	0 KWH/CUST/YR
I. (5) KWH LINE LOSS PERCENTAGE	5.8 %
I. (6) GROUP LINE LOSS MULTIPLIER	1
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR
I. (8)* CUSTOMER KWH REDUCTION AT METER	0 KWH/CUST/YR

ECONOMIC LIFE & K FACTORS

II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	26 YEARS
II. (2) GENERATOR ECONOMIC LIFE	26 YEARS
II. (3) T & D ECONOMIC LIFE	26 YEARS
II. (4) K FACTOR FOR GENERATION	1.6926
II. (5) K FACTOR FOR T & D	1.6926
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	0

UTILITY & CUSTOMER COSTS

III. (1) UTILITY NONRECURRING COST PER CUSTOMER	2307.00 \$/CUST
III. (2) UTILITY RECURRING COST PER CUSTOMER	568.00 \$/CUST/YR
III. (3) UTILITY COST ESCALATION RATE	2.5 %
III. (4) CUSTOMER EQUIPMENT COST	0.00 \$/CUST
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	2.5 %
III. (6) CUSTOMER O & M COST	0 \$/CUST/YR
III. (7) CUSTOMER O & M ESCALATION RATE	2.5 %
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	0 %
III. (10)* INCREASED SUPPLY COSTS	0 \$/CUST/YR
III. (11)* SUPPLY COSTS ESCALATION RATE	0 %
III. (12)* UTILITY DISCOUNT RATE	0.0939
III. (13)* UTILITY AFUDC RATE	0.0779
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00 \$/CUST
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	2832.00 \$/CUST/YR
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0 %

AVOIDED GENERATOR, TRANS. & DIST COSTS

IV. (1) BASE YEAR	2005
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2008
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D	2008
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST	230.18 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST	0 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3 %
IV. (8) GENERATOR FIXED O & M COST	2.544 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE	2.5 %
IV. (10) TRANSMISSION FIXED O & M COST	0 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST	0 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE	2.5 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.8135 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.5 %
IV. (15) GENERATOR CAPACITY FACTOR	5.5 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST	6.27 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE	1.43 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW	0 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE	0 %

NON-FUEL ENERGY AND DEMAND CHARGES

V. (1) NON-FUEL COST IN CUSTOMER BILL	1.370 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE	1 %
V. (3) CUSTOMER DEMAND CHARGE PER KW	7.25 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE	1 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	0

CALCULATED BENEFITS AND COSTS

(1)* TRC TEST - BENEFIT/COST RATIO	7.27
(2)* PARTICIPANT NET BENEFITS (NPV)	77
(3)* RIM TEST - BENEFIT/COST RATIO	1.84

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TOTAL RESOURCE COST TESTS
PROGRAM: Commercial L. M. Extended

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)	
2005	0	3	0	0	3	0	0	0	0	0	(3)	(3)	
2006	0	3	0	0	3	0	0	0	0	0	(3)	(6)	
2007	0	4	0	0	4	0	0	0	0	0	(4)	(9)	
2008	0	2	0	0	2	27	0	0	0	27	25	10	
2009	0	2	0	0	2	27	0	0	0	27	25	28	
2010	0	2	0	0	2	26	0	0	0	26	24	43	
2011	0	2	0	0	2	26	0	0	0	26	24	57	
2012	0	2	0	0	2	25	0	0	0	25	23	69	
2013	0	2	0	0	2	25	0	0	0	25	23	80	
2014	0	2	0	0	2	25	0	0	0	25	22	90	
2015	0	2	0	0	2	24	0	0	0	24	22	99	
2016	0	2	0	0	2	24	0	0	0	24	22	107	
2017	0	2	0	0	2	24	0	0	0	24	21	115	
2018	0	2	0	0	2	23	0	0	0	23	21	121	
2019	0	2	0	0	2	23	0	0	0	23	21	127	
2020	0	2	0	0	2	23	0	0	0	23	20	132	
2021	0	3	0	0	3	22	0	0	0	22	20	137	
2022	0	3	0	0	3	22	0	0	0	22	20	141	
2023	0	3	0	0	3	22	0	0	0	22	19	145	
2024	0	3	0	0	3	22	0	0	0	22	19	148	
2025	0	3	0	0	3	22	0	0	0	22	19	152	
2026	0	3	0	0	3	22	0	0	0	22	19	154	
2027	0	3	0	0	3	22	0	0	0	22	19	157	
2028	0	3	0	0	3	22	0	0	0	22	19	159	
2029	0	3	0	0	3	22	0	0	0	22	19	162	
2030	0	3	0	0	3	22	0	0	0	22	19	164	
NOMINAL	0	66	0	0	66	539	0	0	0	539	473		
NPV:	0	26	0	0	26	190	0	0	0	190	164		
Discount Rate		0.0939	Benefit/Cost Ratio - [col (11)/col (6)]:					7.27					

PARTICIPANT COSTS AND BENEFITS
PROGRAM: Commercial L. M. Extended

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November 9, 2004

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILL \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O & M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2005	0	0	1	0	1	0	0	0	0	1	1
2006	0	0	4	0	4	0	0	0	0	4	5
2007	0	0	7	0	7	0	0	0	0	7	11
2008	0	0	8	0	8	0	0	0	0	8	18
2009	0	0	8	0	8	0	0	0	0	8	24
2010	0	0	8	0	8	0	0	0	0	8	29
2011	0	0	8	0	8	0	0	0	0	8	34
2012	0	0	8	0	8	0	0	0	0	8	39
2013	0	0	8	0	8	0	0	0	0	8	43
2014	0	0	8	0	8	0	0	0	0	8	46
2015	0	0	8	0	8	0	0	0	0	8	50
2016	0	0	8	0	8	0	0	0	0	8	53
2017	0	0	8	0	8	0	0	0	0	8	56
2018	0	0	8	0	8	0	0	0	0	8	59
2019	0	0	8	0	8	0	0	0	0	8	61
2020	0	0	8	0	8	0	0	0	0	8	63
2021	0	0	8	0	8	0	0	0	0	8	65
2022	0	0	8	0	8	0	0	0	0	8	67
2023	0	0	8	0	8	0	0	0	0	8	69
2024	0	0	8	0	8	0	0	0	0	8	70
2025	0	0	8	0	8	0	0	0	0	8	72
2026	0	0	8	0	8	0	0	0	0	8	73
2027	0	0	8	0	8	0	0	0	0	8	74
2028	0	0	8	0	8	0	0	0	0	8	75
2029	0	0	8	0	8	0	0	0	0	8	76
2030	0	0	8	0	8	0	0	0	0	8	77
NOMINAL	0	0	208	0	208	0	0	0	0	208	
NPV:	0	0	77	0	77	0	0	0	0	77	
In service year of gen unit:			2004								
Discount rate:			0.0939								

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Program: Commercial Standby Generator

Program Start Date: January 1991

Program Description

This program is designed to utilize the emergency generation capacity of commercial/industrial facilities in order to reduce weather sensitive peak demand. Tampa Electric provides the participating customers a thirty minute notice that their generation will be required. This allows customers time to start generators and arrange for orderly transfer of load. Tampa Electric meters and issues monthly credits for that portion of the generator's output that could serve normal building load after the notification time. Normal building load is defined as load (type, amount, and time duration) that would have been served by Tampa Electric if the emergency generator did not operate. Under no circumstances will the generator deliver power to Tampa Electric's grid.

Program Participation Standards

1. Applicable to any commercial/industrial customer in Tampa Electric's service area on a firm rate schedule with an on-site emergency generator and who signs a tariff agreement for the Provision of Standby Generator Transfer Service.

The normal building load (standby) that is served (or can be served) by the generator must meet the conditions listed below.

- Minimum of 25 kW demand
 - Minimum of 50% annual load factor during Tampa Electric's peak hours
 - The generator installation and operation comply with all applicable regulations
2. Customers are responsible for wiring changes and controls related to their generator(s).
 3. The monthly incentive is \$3.00 per kW for average transferable demand of a customer's load to a standby generator(s).
 4. The initial credit will be determined by Tampa Electric in the field at the customer's site by transferring the customer's normal load to the standby generator(s).

5. The customer response time for load transfer to the generator(s) is a maximum of 30 minutes from time of notification.
6. Winter is November through March. Summer is April through October.
7. The company's prime use periods for normal control are as follows:
Winter - 6:00 A.M. to 11:00 A.M. and 6:00 P.M. to 10:00 P.M.
Summer - 2:00 P.M. to 10:00 P.M.
8. Tampa Electric will perform field verifications on all installations.
9. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Demand reduction for this program is achieved through the orderly load transfer to the customer's generator(s). Tampa Electric provides notification equipment and, when necessary, special metering to identify the transferred load. The anticipated generator operation is 100 hours per year. Demand and costs estimates are based on current customer averages. Energy is based on the anticipated generator operation per year.

Demand:

The average demand reduction is as follows:

Summer: 472 kW per customer

Winter: 430 kW per customer

Energy:

46,780 kWh per customer

Costs:

Costs are based on present per customer averages.

Administration & Installation: \$6,304

Incentives: \$16,362

Maintenance: \$743

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

PROGRAM NAME: STANDBY GENERATOR

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2005	69,953	289	1	0.3%	1
2006	71,177	294	1	0.7%	2
2007	72,474	299	1	1.0%	3
2008	73,670	304	1	1.3%	4
2009	74,906	309	1	1.6%	5
2010	76,397	315	1	1.9%	6
2011	77,929	321	1	2.2%	7
2012	79,452	327	1	2.4%	8
2013	80,800	333	1	2.7%	9
2014	82,160	338	1	3.0%	10

* Previous participation levels not included.

PROGRAM NAME: STANDBY GENERATOR

AT THE METER						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	46,780	430.000	472.000	0.047	0.430	0.472
2006	46,780	430.000	472.000	0.094	0.860	0.944
2007	46,780	430.000	472.000	0.140	1.290	1.416
2008	46,780	430.000	472.000	0.187	1.720	1.888
2009	46,780	430.000	472.000	0.234	2.150	2.360
2010	46,780	430.000	472.000	0.281	2.580	2.832
2011	46,780	430.000	472.000	0.327	3.010	3.304
2012	46,780	430.000	472.000	0.374	3.440	3.776
2013	46,780	430.000	472.000	0.421	3.870	4.248
2014	46,780	430.000	472.000	0.468	4.300	4.720

PROGRAM NAME: STANDBY GENERATOR

Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	49,493	457.950	502.680	0.049	0.458	0.503
2006	49,493	457.950	502.680	0.099	0.916	1.005
2007	49,493	457.950	502.680	0.148	1.374	1.508
2008	49,493	457.950	502.680	0.198	1.832	2.011
2009	49,493	457.950	502.680	0.247	2.290	2.513
2010	49,493	457.950	502.680	0.297	2.748	3.016
2011	49,493	457.950	502.680	0.346	3.206	3.519
2012	49,493	457.950	502.680	0.396	3.664	4.021
2013	49,493	457.950	502.680	0.445	4.122	4.524
2014	49,493	457.950	502.680	0.495	4.580	5.027

INPUT DATA - PART 1
PROGRAM TITLE: Standby Generator

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PROGRAM DEMAND SAVINGS & LINE LOSSES

I. (1) CUSTOMER KW REDUCTION AT THE METER	472 KW /CUST
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	514.210 KW GEN/CUST
I. (3) KW LINE LOSS PERCENTAGE	6.5 %
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	49660 KWH/CUST/YR
I. (5) KWH LINE LOSS PERCENTAGE	5.8 %
I. (6) GROUP LINE LOSS MULTIPLIER	1
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR
I. (8)* CUSTOMER KWH REDUCTION AT METER	46780 KWH/CUST/YR

ECONOMIC LIFE & K FACTORS

II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	26 YEARS
II. (2) GENERATOR ECONOMIC LIFE	26 YEARS
II. (3) T & D ECONOMIC LIFE	26 YEARS
II. (4) K FACTOR FOR GENERATION	1.6926
II. (5) K FACTOR FOR T & D	1.6926
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	0

UTILITY & CUSTOMER COSTS

III. (1) UTILITY NONRECURRING COST PER CUSTOMER	6304.00 \$/CUST
III. (2) UTILITY RECURRING COST PER CUSTOMER	743.00 \$/CUST/YR
III. (3) UTILITY COST ESCALATION RATE	2.5 %
III. (4) CUSTOMER EQUIPMENT COST	0.00 \$/CUST
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	2.5 %
III. (6) CUSTOMER O & M COST	3301 \$/CUST/YR
III. (7) CUSTOMER O & M ESCALATION RATE	2.5 %
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	0 %
III. (10)* INCREASED SUPPLY COSTS	0 \$/CUST/YR
III. (11)* SUPPLY COSTS ESCALATION RATE	0 %
III. (12)* UTILITY DISCOUNT RATE	0.0939
III. (13)* UTILITY AFUDC RATE	0.0779
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00 \$/CUST
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	16362.00 \$/CUST/YR
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0 %

AVOIDED GENERATOR, TRANS. & DIST COSTS

IV. (1) BASE YEAR	2005
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2008
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D	2008
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST	230.18 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST	0 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3 %
IV. (8) GENERATOR FIXED O & M COST	2.544 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE	2.5 %
IV. (10) TRANSMISSION FIXED O & M COST	0 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST	0 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE	2.5 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.8135 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.5 %
IV. (15) GENERATOR CAPACITY FACTOR	5.5 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST	6.27 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE	1.43 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW	0 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE	0 %

NON-FUEL ENERGY AND DEMAND CHARGES

V. (1) NON-FUEL COST IN CUSTOMER BILL	1.370 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE	1 %
V. (3) CUSTOMER DEMAND CHARGE PER KW	7.25 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE	1 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	0

CALCULATED BENEFITS AND COSTS	
(1)* TRC TEST - BENEFIT/COST RATIO	6.93
(2)* PARTICIPANT NET BENEFITS (NPV)	396
(3)* RIM TEST - BENEFIT/COST RATIO	2.14

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TOTAL RESOURCE COST TESTS
PROGRAM: Standby Generator

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)	
2005	0	7	2	0	8	0	0	1	0	1	(7)	(7)	
2006	0	8	5	0	13	0	0	3	0	3	(10)	(16)	
2007	0	9	9	0	17	0	0	5	0	5	(12)	(27)	
2008	0	2	11	0	13	145	0	6	0	151	138	79	
2009	0	2	11	0	13	143	0	6	0	149	135	173	
2010	0	3	11	0	14	140	0	7	0	148	134	259	
2011	0	3	11	0	14	138	0	8	0	146	132	336	
2012	0	3	12	0	14	136	0	8	0	144	130	405	
2013	0	3	12	0	15	134	0	7	0	141	126	467	
2014	0	3	12	0	15	132	0	7	0	140	125	522	
2015	0	3	13	0	16	131	0	8	0	138	123	572	
2016	0	3	13	0	16	129	0	8	0	137	121	617	
2017	0	3	13	0	16	127	0	8	0	135	119	658	
2018	0	3	14	0	17	126	0	8	0	133	117	694	
2019	0	3	14	0	17	124	0	7	0	131	114	727	
2020	0	3	14	0	18	122	0	8	0	131	113	756	
2021	0	3	15	0	18	121	0	9	0	130	112	783	
2022	0	3	15	0	18	119	0	9	0	128	109	806	
2023	0	3	15	0	19	118	0	9	0	126	107	828	
2024	0	4	16	0	19	117	0	9	0	126	107	847	
2025	0	4	16	0	20	117	0	9	0	126	106	865	
2026	0	4	17	0	20	117	0	10	0	127	106	881	
2027	0	4	17	0	21	117	0	10	0	127	106	896	
2028	0	4	17	0	21	117	0	10	0	127	105	909	
2029	0	4	18	0	22	117	0	9	0	126	104	921	
2030	0	4	18	0	22	117	0	11	0	127	105	932	
NOMINAL	0	96	342	0	438	2,904	0	199	0	3,103	2,665		
NPV:	0	43	114	0	157	1,022	0	67	0	1,090	932		
Discount Rate		0.0939	Benefit/Cost Ratio - [col (11)/col (6)]:					6.93					

RATE IMPACT TEST
PROGRAM: Standby Generator

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT UNIT & FUEL BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS TO ALL CUSTOMERS \$(000)	CUMULATIVE DISCOUNTED NET BENEFIT \$(000)
2005	0	7	8	0	0	15	1	0	0	0	1	(14)	(14)
2006	0	8	25	1	0	33	3	0	0	0	3	(30)	(42)
2007	0	9	41	2	0	51	5	0	0	0	5	(46)	(80)
2008	0	2	49	2	0	53	151	0	0	0	151	98	(6)
2009	0	2	49	2	0	54	149	0	0	0	149	95	61
2010	0	3	49	2	0	54	148	0	0	0	148	94	121
2011	0	3	49	2	0	54	146	0	0	0	146	92	175
2012	0	3	49	2	0	54	144	0	0	0	144	90	223
2013	0	3	49	2	0	54	141	0	0	0	141	87	265
2014	0	3	49	2	0	54	140	0	0	0	140	86	304
2015	0	3	49	2	0	54	138	0	0	0	138	84	338
2016	0	3	49	2	0	54	137	0	0	0	137	83	369
2017	0	3	49	2	0	54	135	0	0	0	135	81	396
2018	0	3	49	2	0	54	133	0	0	0	133	79	421
2019	0	3	49	2	0	54	131	0	0	0	131	77	443
2020	0	3	49	2	0	55	131	0	0	0	131	76	463
2021	0	3	49	2	0	55	130	0	0	0	130	75	480
2022	0	3	49	2	0	55	128	0	0	0	128	73	496
2023	0	3	49	2	0	55	126	0	0	0	126	72	510
2024	0	4	49	2	0	55	126	0	0	0	126	71	523
2025	0	4	49	2	0	55	126	0	0	0	126	71	535
2026	0	4	49	2	0	55	127	0	0	0	127	72	546
2027	0	4	49	2	0	55	127	0	0	0	127	72	556
2028	0	4	49	2	0	55	127	0	0	0	127	71	565
2029	0	4	49	2	0	56	126	0	0	0	126	70	573
2030	0	4	49	2	0	56	127	0	0	0	127	72	581
NOMINAL	0	96	1,203	54	0	1,353	3,103	0	0	0	3,103	1,750	
NPV:	0	43	446	19	0	509	1,090	0	0	0	1,090	581	
Discount rate:			0.0939				Benefit/Cost Ratio - [col (12)/col (7)]:				2.14		

Program: Conservation Value Program

Program Start Date: April 1991

Program Description

This is an incentive program available for all commercial/industrial customers on firm rates to recognize and encourage investments in demand shifting or demand reduction measures. Measures funded in this program will not be covered under other Tampa Electric commercial/industrial conservation programs. Candidates are identified through the energy audit, or their engineering consultants can submit proposals for funding which offer energy reduction during weather sensitive peak times.

Program Participation Standards

1. All commercial/industrial customers on firm rates within Tampa Electric's service area are eligible.
2. Average kW is defined as the total kWh used in the seasonal peak period divided by the total peak hours in the season.
3. An average minimum 5 kW summer and/or winter savings is required.
4. Measures must comply with all applicable codes.
5. For Tampa Electric to consider measures for potential program participation, the customer must submit their proposal along with a preliminary engineering analysis with relevant demand and energy calculations prior to measure installation. The engineering analysis may require a professional seal.
6. Measure eligibility:
 - a. Eligible Measures - Most commercially available and accepted demand reduction technologies are eligible for consideration including, but not limited to, renewable energy sources, highly efficient chillers and motors, refrigeration measures, thermal energy storage systems in lieu of conventional cooling systems, lighting measures in unconditioned space, water heating measures and other measures not covered by other Tampa Electric approved conservation programs.
 - b. Ineligible Measures - This would include measures potentially in conflict with environmental regulations (CFCs, water conservation, indoor air quality), on-site generation, emergency generation, and cogeneration. If a measure qualifies for two rebates (Tampa Electric and another utility company), Tampa Electric will not pay its rebate so

that a double payment is avoided. Additionally, customers on non-firm rates and those that make operational (behavioral) modifications are not eligible.

- c. Any measure undergoing R & D evaluations is not eligible.
- 7. The baseline for measure evaluation will be the existing equipment efficiency unless the measure is covered by a minimum product standard or code for efficiency.
- 8. Customer's simple payback period, including incentives, shall not be less than two years.
- 9. Measures producing an average demand reduction of 50 kW or less which have demonstrated 90 days of successful continued operation will be issued a rebate after field verification.
- 10. Measures producing an average demand reduction greater than 50 kW which have demonstrated 90 days of successful continued operation will receive 50% of the calculated rebate amount after field verification. The remaining incentive will be dispensed at the end of one year following final field verification for successful operation.
- 11. A maximum incentive of \$200.00/avg. kW reduction will be paid based on savings from a baseline case. Tampa Electric will determine the incentive qualification by using the FPSC cost-effectiveness tests described in Rule 25-17.008, F.A.C. A benefit-to-cost ratio of at least 1.0 will be used.
- 12. Summer peak is identified as 12-9 PM, M-F, April through October. Winter peak is identified as 6-10 AM and 6-10 PM, M-F, November through March.
- 13. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Savings and Costs

Program costs include estimates for marketing, administration and field verification for participation and incentives. These estimates are used to maintain a minimum benefit-cost-ratio of 1.0 utilizing the prescribed Commission cost-effectiveness methodology. Demand and energy savings of 24.13 kW summer reduction, 13.08 kW winter reduction and 115,844 annual kWh represent an average potential customer; however, actual data will be available from any participating customer.

Program Monitoring and Evaluation

The measures evaluated in this program are specifically unique to each participant. Because of this, every Conservation Value participant is evaluated on a case by case basis, including verification of savings.

Customers and/or their consultants are responsible for demand and energy savings estimates. Tampa Electric will advise the customer of any special metering requirements when conservation measure(s) are submitted for review. If the company does require special metering, the customer will include such provision in the design of the measure. The company may choose to furnish and install metering equipment. The customer may also be requested to assist in data collection for complex measures.

PROGRAM NAME: CONSERVATION VALUE

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level %	(e) Cumulative Number of Program Participants*
2005	69,953	3,498	1	0.0%	1
2006	71,177	3,559	1	0.1%	2
2007	72,474	3,624	1	0.1%	3
2008	73,670	3,683	1	0.1%	4
2009	74,906	3,745	1	0.1%	5
2010	76,397	3,820	1	0.2%	6
2011	77,929	3,896	1	0.2%	7
2012	79,452	3,973	1	0.2%	8
2013	80,800	4,040	1	0.2%	9
2014	82,160	4,108	1	0.2%	10

* Previous participation levels not included.

PROGRAM NAME: CONSERVATION VALUE

AT THE METER						
Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	115,844	13.080	24.130	0.116	0.013	0.024
2006	115,844	13.080	24.130	0.232	0.026	0.048
2007	115,844	13.080	24.130	0.348	0.039	0.072
		13.080	24.130	0.463	0.052	0.097
2009	115,844	13.080	24.130	0.579	0.065	0.121
2010	115,844	13.080	24.130	0.695	0.078	0.145
2011	115,844	13.080	24.130	0.811	0.092	0.169
2012	115,844	13.080	24.130	0.927	0.105	0.193
2013	115,844	13.080	24.130	1.043	0.118	0.217
2014	115,844	13.080	24.130	1.158	0.131	0.241

PROGRAM NAME: CONSERVATION VALUE

Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual GWh Reduction	Total Annual Winter mW Reduction	Total Annual Summer mW Reduction
2005	122,563	13.930	25.698	0.123	0.014	0.026
2006	122,563	13.930	25.698	0.245	0.028	0.051
2007	122,563	13.930	25.698	0.368	0.042	0.077
2008	122,563	13.930	25.698	0.490	0.056	0.103
2009	122,563	13.930	25.698	0.613	0.070	0.128
2010	122,563	13.930	25.698	0.735	0.084	0.154
2011	122,563	13.930	25.698	0.858	0.098	0.180
2012	122,563	13.930	25.698	0.981	0.111	0.206
2013	122,563	13.930	25.698	1.103	0.125	0.231
2014	122,563	13.930	25.698	1.226	0.139	0.257

INPUT DATA - PART 1
PROGRAM TITLE: Conservation Value

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PROGRAM DEMAND SAVINGS & LINE LOSSES

I. (1) CUSTOMER KW REDUCTION AT THE METER	24.13 KW /CUST
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	24.514 KW GEN/CUST
I. (3) KW LINE LOSS PERCENTAGE	6.5 %
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	122977 KWH/CUST/YR
I. (5) KWH LINE LOSS PERCENTAGE	5.8 %
I. (6) GROUP LINE LOSS MULTIPLIER	1
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR
I. (8)* CUSTOMER KWH REDUCTION AT METER	115844 KWH/CUST/YR

ECONOMIC LIFE & K FACTORS

II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	20 YEARS
II. (2) GENERATOR ECONOMIC LIFE	26 YEARS
II. (3) T & D ECONOMIC LIFE	26 YEARS
II. (4) K FACTOR FOR GENERATION	1.6926
II. (5) K FACTOR FOR T & D	1.6926
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1

UTILITY & CUSTOMER COSTS

III. (1) UTILITY NONRECURRING COST PER CUSTOMER	1933.00 \$/CUST
III. (2) UTILITY RECURRING COST PER CUSTOMER	0.00 \$/CUST/YR
III. (3) UTILITY COST ESCALATION RATE	2.5 %
III. (4) CUSTOMER EQUIPMENT COST	41719.00 \$/CUST
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	2.5 %
III. (6) CUSTOMER O & M COST	0 \$/CUST/YR
III. (7) CUSTOMER O & M ESCALATION RATE	2.5 %
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	0 %
III. (10)* INCREASED SUPPLY COSTS	0 \$/CUST/YR
III. (11)* SUPPLY COSTS ESCALATION RATE	0 %
III. (12)* UTILITY DISCOUNT RATE	0.0939
III. (13)* UTILITY AFUDC RATE	0.0779
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	4826.00 \$/CUST
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	0.00 \$/CUST/YR
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0 %

AVOIDED GENERATOR, TRANS. & DIST COSTS

IV. (1) BASE YEAR	2005
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2008
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D	2008
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST	230.18 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST	0 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3 %
IV. (8) GENERATOR FIXED O & M COST	2.544 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE	2.5 %
IV. (10) TRANSMISSION FIXED O & M COST	0 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST	0 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE	2.5 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.8135 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.5 %
IV. (15) GENERATOR CAPACITY FACTOR	5.5 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST	6.27 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE	1.43 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW	0 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE	0 %

NON-FUEL ENERGY AND DEMAND CHARGES

V. (1) NON-FUEL COST IN CUSTOMER BILL	1.370 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE	1 %
V. (3) CUSTOMER DEMAND CHARGE PER KW	7.25 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE	1 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	0.9

CALCULATED BENEFITS AND COSTS	
(1)* TRC TEST - BENEFIT/COST RATIO	1.54
(2)* PARTICIPANT NET BENEFITS (NPV)	89
(3)* RIM TEST - BENEFIT/COST RATIO	1.69

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TOTAL RESOURCE COST TESTS
PROGRAM: Conservation Value

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)	
2005	0	2	42	0	44	0	0	2	0	2	(42)	(42)	
2006	0	2	43	0	45	0	0	7	0	7	(38)	(76)	
2007	0	2	44	0	46	0	0	13	0	13	(33)	(104)	
2008	0	0	0	0	0	5	0	15	0	21	21	(88)	
2009	0	0	0	0	0	5	0	14	0	19	19	(74)	
2010	0	0	0	0	0	6	0	18	0	24	24	(59)	
2011	0	0	0	0	0	6	0	20	0	25	25	(44)	
2012	0	0	0	0	0	6	0	20	0	25	25	(31)	
2013	0	0	0	0	0	6	0	18	0	24	24	(19)	
2014	0	0	0	0	0	6	0	18	0	24	24	(8)	
2015	0	0	0	0	0	6	0	19	0	25	25	2	
2016	0	0	0	0	0	6	0	20	0	26	26	11	
2017	0	0	0	0	0	6	0	19	0	26	26	20	
2018	0	0	0	0	0	6	0	19	0	26	26	28	
2019	0	0	0	0	0	7	0	18	0	25	25	35	
2020	0	0	0	0	0	7	0	21	0	27	27	42	
2021	0	0	0	0	0	7	0	22	0	29	29	49	
2022	0	0	0	0	0	7	0	22	0	29	29	55	
2023	0	0	0	0	0	7	0	21	0	28	28	61	
2024	0	0	0	0	0	7	0	22	0	29	29	66	
NOMINAL	0	6	128	0	134	106	0	348	0	454	320		
NPV:	0	5	117	0	123	42	0	147	0	189	66		
Discount Rate		0.0939	Benefit/Cost Ratio - [col (11)/col (6)]:					1.54					

PARTICIPANT COSTS AND BENEFITS
PROGRAM: Conservation Value

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILL \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O & M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2005	3	0	5	0	8	42	0	0	42	(34)	(34)
2006	11	0	5	0	15	43	0	0	43	(27)	(59)
2007	18	0	5	0	23	44	0	0	44	(21)	(76)
2008	22	0	0	0	22	0	0	0	0	22	(59)
2009	21	0	0	0	21	0	0	0	0	21	(44)
2010	24	0	0	0	24	0	0	0	0	24	(29)
2011	25	0	0	0	25	0	0	0	0	25	(15)
2012	24	0	0	0	24	0	0	0	0	24	(2)
2013	22	0	0	0	22	0	0	0	0	22	9
2014	23	0	0	0	23	0	0	0	0	23	20
2015	23	0	0	0	23	0	0	0	0	23	29
2016	24	0	0	0	24	0	0	0	0	24	38
2017	24	0	0	0	24	0	0	0	0	24	46
2018	24	0	0	0	24	0	0	0	0	24	53
2019	23	0	0	0	23	0	0	0	0	23	60
2020	25	0	0	0	25	0	0	0	0	25	67
2021	26	0	0	0	26	0	0	0	0	26	73
2022	26	0	0	0	26	0	0	0	0	26	79
2023	26	0	0	0	26	0	0	0	0	26	84
2024	27	0	0	0	27	0	0	0	0	27	89
NOMINAL	442	0	14	0	456	128	0	0	128	328	
NPV:	193	0	13	0	206	117	0	0	117	89	

In service year of gen unit: 2004
Discount rate: 0.0939

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RATE IMPACT TEST
PROGRAM: Conservation Value

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT UNIT & FUEL BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS TO ALL CUSTOMERS \$(000)	CUMULATIVE DISCOUNTED NET BENEFIT \$(000)
2005	0	2	5	2	0	8	2	0	0	0	2	(6)	(6)
2006	0	2	5	5	0	12	7	0	0	0	7	(5)	(11)
2007	0	2	5	9	0	16	13	0	0	0	13	(3)	(13)
2008	0	0	0	11	0	11	21	0	0	0	21	10	(6)
2009	0	0	0	11	0	11	19	0	0	0	19	8	0
2010	0	0	0	11	0	11	24	0	0	0	24	13	8
2011	0	0	0	11	0	11	25	0	0	0	25	14	17
2012	0	0	0	11	0	11	25	0	0	0	25	14	24
2013	0	0	0	11	0	11	24	0	0	0	24	12	30
2014	0	0	0	11	0	11	24	0	0	0	24	13	36
2015	0	0	0	12	0	12	25	0	0	0	25	13	41
2016	0	0	0	12	0	12	26	0	0	0	26	14	47
2017	0	0	0	12	0	12	26	0	0	0	26	14	51
2018	0	0	0	12	0	12	26	0	0	0	26	14	56
2019	0	0	0	12	0	12	25	0	0	0	25	13	59
2020	0	0	0	12	0	12	27	0	0	0	27	15	63
2021	0	0	0	12	0	12	29	0	0	0	29	17	67
2022	0	0	0	12	0	12	29	0	0	0	29	17	71
2023	0	0	0	12	0	12	28	0	0	0	28	16	74
2024	0	0	0	13	0	13	29	0	0	0	29	17	77
NOMINAL	0	6	14	214	0	234	454	0	0	0	454	220	
NPV:	0	5	13	93	0	112	189	0	0	0	189	77	
Discount rate:			0.0939				Benefit/Cost Ratio - [col (12)/col (7)]:				1.69		

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Program: Conservation Research and Development (“R&D”)

Program Start Date: July 1995

Program Description

This program is in response to Rule 25-17.001 (5) (f), F.A.C., that requires aggressive R&D projects be “...an ongoing part of the practice of every well managed utility’s programs.” It is also in support of FPSC Order No. 22176 dated November 14, 1989, requiring utilities to “...pursue research, development, and demonstration projects designed to promote energy efficiency and conservation.” R&D activity will be conducted on proposed measures to determine the impact to the company and its ratepayers and may occur at customer premises, Tampa Electric facilities or at independent test sites. Tampa Electric will report program progress through the annual ECCR True-Up filing.

Program Participation Standards

Measures for R&D can be residential or commercial in nature and may be either new in the marketplace or existing measures which meet the criteria below.

- The proposed measure has the potential to affect Tampa Electric or its ratepayers.
- Sufficient data is not currently available to evaluate the impact of the proposed measure.
- Data on the proposed measure is available, but is not relevant to the central Florida climate zone.

Eligible Measures

Most technology measures are eligible for consideration including renewable and green energy sources, energy efficient construction, heat recovery, space conditioning equipment, refrigeration, cooking, fuel cells, ventilation, pumps and fan efficiency, thermal energy storage systems, water heating, etc.

Program Costs

Program costs are estimated at \$100,000 per year for a five-year period. Expenses for a given year may exceed \$100,000; however, total program cost shall not exceed \$500,000 for the five-year period. For individual R&D projects estimated to be greater than \$50,000 in cost, Tampa Electric will seek administrative approval from the FPSC Staff prior to proceeding with the evaluation.

Program Monitoring and Evaluation

Data collected shall be in support of the FPSC cost effectiveness methodology, specifically, input data for conducting RIM, TRC, and Participant Tests. Positive measure evaluation results may support future ECCR program filings by the company.

Program: Cogeneration

Program Start Date: January 1981

Program Description

Tampa Electric's Cogeneration program is administered by a professional team experienced in working with cogenerators. The group manages functions related to coordination with Qualifying Facilities ("QFs") including negotiations, agreements and informational requests; functions related to governmental, regulatory and legislative bodies; research, development, data acquisition and analysis; economic evaluations of existing and proposed QFs as well as the preparation of Tampa Electric's Annual Twenty-Year Cogeneration Forecast.

The Cogeneration team leads Tampa Electric's involvement with prospective cogeneration projects that may be developed within our retail service area. This involvement includes developing and providing interconnection cost estimates, determining appropriate relaying schemes, establishing operation and maintenance procedures and negotiating purchase power and transmission service agreement when appropriate.

Program Activities

A detailed description of the activities conducted under the Cogeneration program is listed below.

- Plan, develop and assist in administering and implementing corporate and FPSC policies and regulations in areas related to cogeneration activities.
- Provide consultation, data and other specific information on a daily basis to cogeneration customers, consultants, industry executives, FPSC and other governmental agencies, developers, other utilities and various media publications regarding cogeneration policies, FPSC rules, avoided cost rates and other related criteria.
- Prepare testimony and represent Tampa Electric at hearings, rulemaking and workshop sessions, and specific tariff activities before the FPSC and other governmental agencies.
- Conduct research and development, data acquisition and economic analyses that provide reliable criteria upon which to evaluate the feasibility of cogeneration and small power production facilities.

- Prepare and issue monthly correspondence to cogeneration customers which includes a payment statement, hour-by-hour energy payment rates for preliminary and final energy payments, identification of hourly differences between preliminary and final energy payments and early capacity payment accrual accounts.
- Obtain appropriate initial and subsequent renewal Certificates of Insurance for each cogeneration customer interconnected with Tampa Electric and for each cogeneration customer under contract with the company, sufficient to cover the customer's liability with the company.
- Prepare monthly and quarterly reports of cogeneration activities, avoided costs, etc., for submittal to the FPSC.
- Review monthly O&M bills for a customer's substation and transmission interconnections with the company.
- Determine if each customer's monthly contract standby demand level remains appropriate, and when ratcheted, the new level does not exceed the customer's generator capacity.
- Direct communications and develop the negotiations and final contractual language for interconnection, operating and transmission service agreements with cogeneration and small power production facilities.
- Assist the company's engineering and maintenance personnel with cogeneration maintenance procedures and cost estimates.
- Coordinate all cogeneration-related activities with other company departments.
- Develop the company's forecast of annual sales to cogeneration customers.
- Serve as a resource for budgeting non-fuel revenues from cogeneration customers for transmission service transactions, O&M on interconnected facilities and standby service from the company.
- Prepare and distribute the company's Twenty-Year Cogeneration Forecast.

Projected Costs

Program costs are estimated on an annual basis and are integral to the company's annual ECCR Projection Filings. Actual expenses are reported in the annual ECCR True-Up Filings and subject to FPSC audits.

Program: Renewable Energy Pilot Program

Program Start Date: September 2000

Program Description

This is a program originally approved in Docket No. 000697-EI, Order No. PSC-00-1741-TRF-EI, issued September 25, 2000 as a three-year pilot to assist in the delivery of renewable energy for the company's Green Energy Pilot Program. This specific effort provides funding for program administration, evaluation and market research.

On October 1, 2003, Tampa Electric filed a petition to extend the pilot through December 2006. The petition was approved by the FPSC in Docket No. 030959-EI, Order No. PSC-04-0386-TRF-EI, issued April 18, 2004.

Renewable energy participants will be served from the existing electrical system. Renewable energy may not be delivered to the customer, but will displace energy that would have otherwise been produced from traditional fossil fuels. Tampa Electric will report program progress through semi-annual reports and the annual ECCR True-up and Projection Filings.

Program Participation Standards

1. Any residential or commercial customer in Tampa Electric's service area is eligible.
2. Customers may purchase unlimited blocks of renewable energy. One block of renewable energy is defined as 100 kWh.
3. The cost per block is \$5.00.
4. Service under this rate will be for a term of one-year and may be terminated by the customer with a two-month notice.
5. After completion of the initial 12-month term, service will be provided on a month-to-month basis.
6. The incremental purchase of renewable energy is included in the customer's monthly electric bill.
7. There are no technical specifications on equipment eligibility with this program.

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program and provide reports on the program's progress every six months as required by the Commission in Docket No. 030959-EI, Order No. PSC-04-0386-TRF-EI, issued April 18, 2004.

Program: Industrial Load Management (GSLM 2&3)

Program Start Date: September 1999

Program Description

This is a load management program for large industrial customers with interruptible loads of 500 kW or greater. The program was approved by the FPSC in Docket No. 990037-EI, Order No. PSC-99-1778-FOF-EI, issued September 10, 1999. Assessments for customer participation are conducted every six months.

Program Participation Standards

1. Applicable to any commercial/industrial customer on a firm rate schedule in Tampa Electric's service area who signs a tariff agreement for the Purchase of Industrial Load Management or the Purchase of Industrial Standby and Supplemental Load Management Service.
2. Additional monthly customer charge is \$200.00.
3. The initial term of service shall be 36 months. The term shall be automatically extended after the end of the initial term subject to notice requirements. In addition to committing to take service for an initial term of 36 months, the customer is required to give the company prior written notice of desire to cease service under this program of at least 36 months. Such notice shall be irrevocable unless the company and the customer should mutually agree to void the notice.
4. Customers served under this program may elect to have Tampa Electric minimize interruption through purchases of energy under optional provision. The customer will pay, as part of its monthly service bill, an extra charge per kilowatt-hour for each kilowatt-hour consumed during the time of such purchase. The extra charge per kilowatt-hour shall be the amount per kilowatt-hour paid to the outside source less the amount per kilowatt-hour otherwise billed under this program, plus 2 mills (\$0.002) per kilowatt-hour.
5. The Contracted Credit Value ("CCV") paid for this service shall be established every year and identified in the company's annual ECCR Projection Filing. For 2005, the CCV is \$4.46 /kW/mo.
6. Tampa Electric will perform field verifications on all installations.

7. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

Program Costs

Program costs include estimates for marketing, administration and field verification for participation and incentives. These estimates are used to maintain a benefit-cost-ratio of 1.2 utilizing the prescribed Commission cost-effectiveness methodology. Demand and energy savings of 3,171 kW summer reduction, 2,900 kW winter reduction and 734,000 annual kWh represent an average potential customer; however, actual data will be available from any participating customer.

Program Monitoring and Evaluation

Tampa Electric will monitor and evaluate this program through cost-effective techniques approved in the company's previously filed Demand Side Management Monitoring and Evaluation Plan, Docket No. 941173-EG.

INPUT DATA - PART 1
PROGRAM TITLE: Industrial Load Management (GSLM 2&3)

PSC FORM CE 1.1
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RUN DATE: November 9, 2004

PROGRAM DEMAND SAVINGS & LINE LOSSES

I. (1) CUSTOMER KW REDUCTION AT THE METER	3171 KW /CUST
I. (2) GENERATOR KW REDUCTION PER CUSTOMER	3456.804 KW GEN/CUST
I. (3) KW LINE LOSS PERCENTAGE	6.5 %
I. (4) GENERATION KWH REDUCTION PER CUSTOMER	779193 KWH/CUST/YR
I. (5) KWH LINE LOSS PERCENTAGE	5.8 %
I. (6) GROUP LINE LOSS MULTIPLIER	1
I. (7) CUSTOMER KWH PROGRAM INCREASE AT METER	0 KWH/CUST/YR
I. (8)* CUSTOMER KWH REDUCTION AT METER	734000 KWH/CUST/YR

ECONOMIC LIFE & K FACTORS

II. (1) STUDY PERIOD FOR CONSERVATION PROGRAM	26 YEARS
II. (2) GENERATOR ECONOMIC LIFE	26 YEARS
II. (3) T & D ECONOMIC LIFE	26 YEARS
II. (4) K FACTOR FOR GENERATION	1.6926
II. (5) K FACTOR FOR T & D	1.6926
II. (6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	0

UTILITY & CUSTOMER COSTS

III. (1) UTILITY NONRECURRING COST PER CUSTOMER	1570.00 \$/CUST
III. (2) UTILITY RECURRING COST PER CUSTOMER	1256.00 \$/CUST/YR
III. (3) UTILITY COST ESCALATION RATE	2.5 %
III. (4) CUSTOMER EQUIPMENT COST	11025.00 \$/CUST
III. (5) CUSTOMER EQUIPMENT ESCALATION RATE	2.5 %
III. (6) CUSTOMER O & M COST	0 \$/CUST/YR
III. (7) CUSTOMER O & M ESCALATION RATE	2.5 %
III. (8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST
III. (9)* CUSTOMER TAX CREDIT ESCALATION RATE	0 %
III. (10)* INCREASED SUPPLY COSTS	0 \$/CUST/YR
III. (11)* SUPPLY COSTS ESCALATION RATE	0 %
III. (12)* UTILITY DISCOUNT RATE	0.0939
III. (13)* UTILITY AFUDC RATE	0.0779
III. (14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00 \$/CUST
III. (15)* UTILITY RECURRING REBATE/INCENTIVE	163682.00 \$/CUST/YR
III. (16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0 %

AVOIDED GENERATOR, TRANS. & DIST COSTS

IV. (1) BASE YEAR	2005
IV. (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2008
IV. (3) IN-SERVICE YEAR FOR AVOIDED T & D	2008
IV. (4) BASE YEAR AVOIDED GENERATING UNIT COST	230.18 \$/KW
IV. (5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW
IV. (6) BASE YEAR DISTRIBUTION COST	0 \$/KW
IV. (7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3 %
IV. (8) GENERATOR FIXED O & M COST	2.544 \$/KW/YR
IV. (9) GENERATOR FIXED O&M ESCALATION RATE	2.5 %
IV. (10) TRANSMISSION FIXED O & M COST	0 \$/KW/YR
IV. (11) DISTRIBUTION FIXED O & M COST	0 \$/KW/YR
IV. (12) T&D FIXED O&M ESCALATION RATE	2.5 %
IV. (13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.8135 CENTS/KWH
IV. (14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.5 %
IV. (15) GENERATOR CAPACITY FACTOR	2.7 %
IV. (16) AVOIDED GENERATING UNIT FUEL COST	6.27 CENTS/KWH
IV. (17) AVOIDED GEN UNIT FUEL ESCALATION RATE	1.43 %
IV. (18)* AVOIDED PURCHASE CAPACITY COST PER KW	0 \$/KW/YR
IV. (19)* CAPACITY COST ESCALATION RATE	0 %

NON-FUEL ENERGY AND DEMAND CHARGES

V. (1) NON-FUEL COST IN CUSTOMER BILL	1.370 CENTS/KWH
V. (2) NON-FUEL ESCALATION RATE	1 %
V. (3) CUSTOMER DEMAND CHARGE PER KW	7.25 \$/KW/MO
V. (4) DEMAND CHARGE ESCALATION RATE	1 %
V. (5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	0

(1)* TRC TEST - BENEFIT/COST RATIO	75.10
(2)* PARTICIPANT NET BENEFITS (NPV)	1,994
(3)* RIM TEST - BENEFIT/COST RATIO	1.20

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TOTAL RESOURCE COST TESTS
PROGRAM: Industrial Load Management (GSLM 2&3)

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November 9, 2004

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)	
2005	0	2	11	0	13	0	0	14	0	14	0	0	
2006	0	1	0	0	1	0	0	30	0	30	29	26	
2007	0	1	0	0	1	0	0	33	0	33	31	53	
2008	0	1	0	0	1	262	0	32	0	295	293	277	
2009	0	1	0	0	1	256	0	29	0	285	284	475	
2010	0	1	0	0	1	250	0	39	0	289	287	658	
2011	0	1	0	0	1	244	0	41	0	285	283	824	
2012	0	1	0	0	1	238	0	41	0	279	278	972	
2013	0	2	0	0	2	233	0	37	0	270	268	1,103	
2014	0	2	0	0	2	228	0	39	0	266	265	1,221	
2015	0	2	0	0	2	223	0	39	0	262	260	1,327	
2016	0	2	0	0	2	218	0	42	0	260	258	1,423	
2017	0	2	0	0	2	213	0	41	0	253	252	1,509	
2018	0	2	0	0	2	208	0	40	0	248	247	1,586	
2019	0	2	0	0	2	203	0	39	0	242	240	1,654	
2020	0	2	0	0	2	198	0	44	0	242	240	1,717	
2021	0	2	0	0	2	193	0	46	0	240	238	1,773	
2022	0	2	0	0	2	189	0	46	0	235	233	1,824	
2023	0	2	0	0	2	185	0	44	0	229	227	1,869	
2024	0	2	0	0	2	182	0	47	0	229	227	1,910	
2025	0	2	0	0	2	181	0	46	0	227	225	1,948	
2026	0	2	0	0	2	179	0	51	0	230	228	1,982	
2027	0	2	0	0	2	178	0	53	0	231	229	2,014	
2028	0	2	0	0	2	176	0	52	0	228	226	2,043	
2029	0	2	0	0	2	175	0	48	0	222	220	2,068	
2030	0	2	0	0	2	173	0	55	0	228	226	2,092	
NOMINAL	0	46	11	0	57	4,783	0	1,068	0	5,852	5,795		
NPV:	0	17	11	0	28	1,741	0	379	0	2,120	2,092		
Discount Rate		0.0939	Benefit/Cost Ratio - [col (11)/col (6)]:					75.10					

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RATE IMPACT TEST
PROGRAM: Industrial Load Management (GSLM 2&3)

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT UNIT & FUEL BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS TO ALL CUSTOMERS \$(000)	CUMULATIVE DISCOUNTED NET BENEFIT \$(000)
2005	0	2	82	5	0	89	14	0	0	0	14	(75)	(75)
2006	0	1	164	10	0	175	30	0	0	0	30	(145)	(208)
2007	0	1	164	10	0	175	33	0	0	0	33	(143)	(327)
2008	0	1	164	10	0	175	295	0	0	0	295	119	(236)
2009	0	1	164	10	0	176	285	0	0	0	285	110	(160)
2010	0	1	164	11	0	176	289	0	0	0	289	113	(87)
2011	0	1	164	11	0	176	285	0	0	0	285	109	(24)
2012	0	1	164	11	0	176	279	0	0	0	279	103	31
2013	0	2	164	11	0	176	270	0	0	0	270	94	77
2014	0	2	164	11	0	176	266	0	0	0	266	90	117
2015	0	2	164	11	0	176	262	0	0	0	262	85	152
2016	0	2	164	11	0	177	260	0	0	0	260	83	183
2017	0	2	164	11	0	177	253	0	0	0	253	77	209
2018	0	2	164	11	0	177	248	0	0	0	248	72	231
2019	0	2	164	12	0	177	242	0	0	0	242	65	250
2020	0	2	164	12	0	177	242	0	0	0	242	65	267
2021	0	2	164	12	0	177	240	0	0	0	240	63	282
2022	0	2	164	12	0	178	235	0	0	0	235	57	294
2023	0	2	164	12	0	178	229	0	0	0	229	52	304
2024	0	2	164	12	0	178	229	0	0	0	229	51	314
2025	0	2	164	12	0	178	227	0	0	0	227	49	322
2026	0	2	164	12	0	178	230	0	0	0	230	52	330
2027	0	2	164	13	0	178	231	0	0	0	231	52	337
2028	0	2	164	13	0	179	228	0	0	0	228	50	343
2029	0	2	164	13	0	179	222	0	0	0	222	44	348
2030	0	2	164	13	0	179	228	0	0	0	228	49	354
NOMINAL	0	46	4,174	292	0	4,512	5,852	0	0	0	5,852	1,340	
NPV:	0	17	1,640	110	0	1,767	2,120	0	0	0	2,120	354	
Discount rate:			0.0939				Benefit/Cost Ratio - [col (12)/col (7)]:			1.20			

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