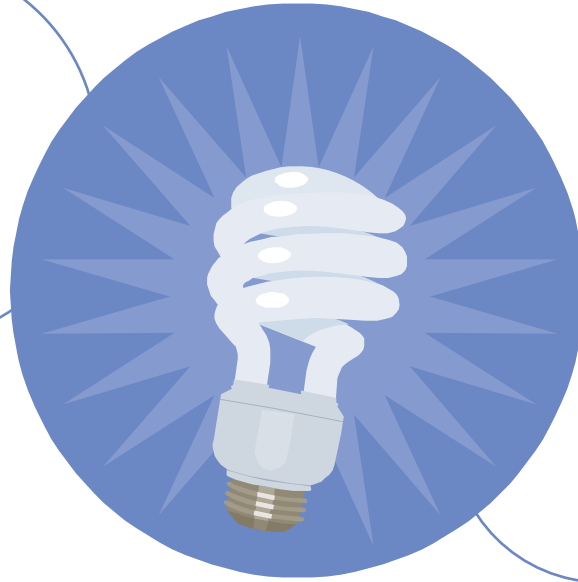


Florida Public Service Commission



ANNUAL REPORT ON
Activities Pursuant to the

Florida
Energy
Efficiency &
Conservation
Act

As Required by Sections
366.82(10), 377.703(2)(f),
and 553.975, Florida Statutes

FEBRUARY 2012

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February 2012

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List of Acronyms

C/I	Commercial/Industrial
DSM	Demand-Side Management
ECCR	Energy Conservation Cost Recovery
E-RIM	Enhanced Rate Impact Measure
E-TRC	Enhanced Total Resource Cost
F.A.C.	Florida Administrative Code
FEECA	Florida Energy Efficiency and Conservation Act
F.S.	Florida Statutes
GWh	Gigawatt-Hour
HERS	Home Energy Rating System
HVAC	Heating Ventilating and Air Conditioning
kWh	Kilowatt-hour
LDC	Local Distribution Company
MW	Megawatt
PSC	Public Service Commission
RIM	Rate Impact Measure
TRC	Total Resource Cost

Executive Summary

Reducing Florida's peak electric demand and energy consumption remains as important and relevant today as it was in 1980, when the Florida Energy Efficiency and Conservation Act (FEECA) was enacted. Located in Sections 366.80 through 366.85 and Section 403.519, Florida Statutes (F.S.), FEECA emphasizes reducing the growth rates of weather-sensitive peak demand, reducing and controlling the growth rates of electricity consumption, and reducing the consumption of scarce resources such as petroleum fuels. Section 366.82(2), F.S., requires the Public Service Commission (Commission or PSC) to set appropriate goals for each of the seven electric utilities subject to the Act. The goals are expressed as annual electric peak demand and energy savings over a ten-year period. The seven utilities subject to FEECA include Florida Power & Light Company (FPL), Progress Energy Florida, Inc. (PEF), Tampa Electric Company (TECO), Gulf Power Company (Gulf), Florida Public Utilities Company (FPUC), Orlando Utilities Commission (OUC), and JEA. Once goals are established, these utilities must submit, for Commission approval, cost-effective demand-side management (DSM) plans and programs designed to meet the goals.

This report fulfills three statutory requirements. Section 366.82(10), F.S., directs the Commission to provide an annual report to the Governor and Legislature with the goals it has adopted under FEECA and progress achieved toward meeting those goals. Section 377.703(2)(f), F.S., requires the Commission to file information on electricity and natural gas and energy conservation programs with the Department of Agriculture and Consumer Services. Section 553.975, F.S., requires the Commission to report biennially on the effectiveness of energy conservation standards in the state.

Section 1 of this report provides a history of FEECA, savings produced by utility programs since 1980, and a description of tools for increasing conservation throughout the state. Section 2 discusses current goals and achievements of the FEECA utilities. To provide context, Section 3 provides an overview of Florida's electricity market. Section 4 discusses methods the Commission has used to educate Florida consumers about conservation and provides a list of related web sites. Section 5 provides information on the Florida Energy Conservation Standards Act. Finally, Appendix 1 provides a description of the conservation programs currently offered by the FEECA utilities.

Conservation Achievements

As of 2011, the seven FEECA utilities' DSM programs, in total, have reduced winter peak demand by an estimated 6,711 MW and annual energy by an estimated 8,000 GWh. The

demand savings from these programs have deferred the need for 45 typical 150 MW combustion turbine units.

Since 1981, Florida's investor-owned electric utilities have recovered over \$5.4 billion of conservation expenditures through the Energy Conservation Cost Recovery (ECCR) clause, with approximately \$2.6 billion of conservation program expenditures in the last ten years. In 2010, Florida's investor-owned electric utilities recovered over \$355 million in conservation program expenditures from ratepayers, performed 225,924 residential energy audits, and offered over 100 conservation programs for residential and commercial customers (these programs are summarized in Appendix 1).

Consumer choice plays the primary role in reducing the growth rates of electrical demand and energy in Florida. The Commission's consumer education program (see Section 4) employs a variety of tools to promote awareness of daily conservation and energy efficiency activities. Consumers exercise choice by purchasing smaller, more efficient homes and making energy efficiency improvements to existing homes. Other consumer actions that directly contribute to conservation are the purchase of energy-efficient appliances and the choice to utilize cost-effective demand-side renewable systems.

Before relying on utility sponsored energy conservation activities, there are several other highly effective means of insuring energy efficiency. Per legislative directives, building code requirements established by the Florida Building Commission in 2008 increased the energy performance of new buildings by at least 20% compared to the 2007 Energy Efficiency Code. The enhanced efficiency standards for appliances established by the Department of Energy (DOE) also effectively reduce energy consumption. For example, in 2010 the efficiency of air conditioning equipment, typically a residential customer's most energy intensive device, was increased by 30% through DOE's new standards. The DOE is currently considering additional amendments to energy efficiency standards. These federal and state building codes and appliance efficiency standards create a baseline for the cost-effectiveness of any new utility sponsored DSM program.

In Section 2 of this report the utilities' demand and energy savings are compared to the goals established by the Commission. In 2010, the Commission approved DSM plans for OUC, JEA, FPUC, and TECO. Gulf's DSM plan was approved in February 2011. On July 26, 2011, the Commission voted to modify the proposed DSM plans of FPL and PEF such that the approved plans would consist of those existing programs in effect as of the date of the Orders. Each FEECA utility now has an approved plan in place. An investor-owned utility may receive a financial reward if it exceeds the goals or be subject to financial penalties should it fail to meet

its annual goals as authorized by Section 366.82(8), F.S. Because the modified plans of FPL and PEF continue existing programs, the Commission clarified how the companies would be treated with regard to rewards and penalties.¹ FPL and PEF will be eligible for a financial reward if their achievements exceed their Commission-established goals. Neither FPL nor PEF will be subject to a financial penalty unless their achievements fall below the savings projected under their modified DSM plans.

A comparison of the 2010 annual goals against each utility's annual achievements during 2010 reveals that only TECO, JEA and OUC met or exceeded their demand and energy goals in every category. The remaining FEECA utilities, FPL, PEF, Gulf and FPUC, each failed to reach their summer demand or annual energy goal in at least one customer category. Gulf failed to meet its total goals in all customer categories during 2010. The primary reason FPL, PEF, Gulf and FPUC gave for not achieving their goals was that the new programs designed to achieve these goals had not been fully approved by the Commission in 2010, and therefore were not able to be implemented during 2010.

The Commission's review and approval of the new plans and programs was both thorough and lengthy. The Commission determined that the plans originally filed by the IOUs on March 30, 2010 were insufficient to meet the established goals and ordered the IOUs to revise and refile them. Separate reviews of the revised plans were conducted and the Commission's orders modifying and approving the IOUs' DSM plans were issued from November 2010 through July 2011. Thus, during 2010, all the IOUs were still using programs designed to meet the goals set in 2004. For this reason, a comparison of the FEECA utilities cumulative achievements to cumulative goals over the past six years was also made. This comparison encompassed years 2005 through 2009 when the 2004 goals were in place as well as calendar year 2010, the first year the new goals were in place. The cumulative comparison demonstrates that on a state-wide basis, the FEECA utilities total achievements have exceeded total goals over the past six years.

Conclusion

Consumer education, building codes, and appliance efficiency standards impact utilities' conservation programs by creating a baseline for the cost-effectiveness of any new program and decreasing the amount of incremental energy available to count towards savings. Utility programs offer rebates and incentives for appliances that exceed minimum efficiency standards, thereby avoiding duplicate savings estimates. However, the savings from these programs are

¹ Orders No. PSC-11-0346-PAA-EG in Docket No. 100155-EG and PSC-11-0347-PAA-EG in Docket No. 100160-EG, issued August 16, 2011.

somewhat uncertain as they depend on voluntary participation by customers and the expense is shared by all customers. Customer participation in utility-offered DSM and energy conservation programs, along with individual efforts to use electrical energy wisely, remain fundamental elements for reducing the demand for energy.

Calendar year 2010 was the first year that new demand and energy goals were in place. However, new DSM Plans designed by the utilities to meet these goals were not approved until late 2010 or 2011. Furthermore, investor-owned utilities are not permitted to implement new programs until program standards are filed and approved by the Commission and the first program standards were not approved until 2011. Consequently, with the exception of OUC and JEA, no FEECA utility had new DSM programs in place during any part of 2010.

In consideration of the fact that programs designed to meet the new goals were not yet in place for the investor-owned utilities during 2010, cumulative utility achievements were also compared against cumulative goals over a six year time period. The FEECA utilities total achievements have exceeded total goals over the past six years.

These mixed results reflect a time of transition as the FEECA utilities must adjust their programs to meet new goals and utilize new technologies, control program costs, and respond to customer expectations. The Commission will continue to monitor utility achievements on an ongoing basis. Section 366.82(8), F.S., gives the Commission the authority to financially reward or penalize a company based on whether its conservation goals are achieved. As 2010 is the first year the Commission is measuring savings under the new goals and many utilities did not yet have their new programs in place during 2010, it would appear to be premature to consider rewards and penalties at this time.

Section 1. The Florida Energy Efficiency and Conservation Act

1.1 History of FEECA

Enacted in 1980, the FEECA has placed a continued emphasis towards reducing the growth rates of weather-sensitive peak demand, reducing and controlling the growth rates of electricity consumption, and reducing the consumption of scarce resources such as petroleum fuels. To accomplish these objectives, FEECA requires the Commission to establish goals and the electric utilities to implement DSM programs to meet those goals.

Initially, all of Florida's electric utilities were subject to FEECA. The legislative sunset review of the FEECA statute in 1989 resulted in two major changes. The first change required an inclusion of a size limitation so that only electric utilities with more than 500 gigawatt-hours (GWh) of annual retail sales would be subject to FEECA. At the time, the 12 utilities which exceeded the sales threshold comprised approximately 94 percent of all retail electricity sales in Florida. The second change required the addition of language to encourage cogeneration.

In 1996, the Legislature further revised the FEECA statutes. The revision increased the minimum retail sales threshold for municipal and cooperative utilities subject to FEECA to 2,000 GWh. Pursuant to the statute, retail sales for each municipal and cooperative utility were measured as of July 1, 1993, to determine whether the company was subject to FEECA. Because they meet the minimum retail sales threshold, OUC and JEA, both municipal utilities, are also subject to FEECA. No rural electric cooperatives are subject to FEECA. All five Florida investor-owned utilities remained subject to FEECA, regardless of sales. The current FEECA utilities account for approximately 89% of all energy sales in Florida.

Table 1 displays the 2010 energy sales by each FEECA utility and non-FEECA utilities. Also included in the table is a percentage allocation of energy sales per FEECA utility along with a total percentage allocation for the non-FEECA utilities.

Table 1. Energy Sales by Florida's FEECA Utilities in 2010

Florida's FEECA Utilities	Energy Sales GWh	% of Total Energy Sales
Florida Power & Light Company	104,557	48.1
Progress Energy Florida	38,925	17.9
Tampa Electric Company	19,213	8.8
Gulf Power Company	11,359	5.2
Florida Public Utilities Company	746	0.3
JEA	12,855	5.9
Orlando Utilities Commission	6,132	2.8
FEECA Total	193,787	89.1
Non-FEECA Utilities Total	23,597	10.9
Statewide Total*	217,384	100.0

1.2 Conservation Tools and DSM Savings

While utility sponsored DSM programs are important, consumer choice plays the primary role in reducing the growth rates of electrical demand and energy in Florida. Smaller, more efficient homes; energy-efficient appliances; energy-efficiency improvements to existing homes and increased use of the most cost-effective demand-side renewable systems are areas in which customers may directly impact electric energy conservation. As power plant sites and transmission corridors grow scarce in Florida, utility efforts to defer future generating units and transmission lines become increasingly important.

Consumer education, building codes, and appliance efficiency standards impact the utilities' conservation programs by creating a baseline for the cost-effectiveness of any new program and decreasing the potential for incremental energy savings as code standards become more rigorous. In 2011, the Department of Energy (DOE) issued enhanced efficiency standards for appliances which will effectively reduce energy consumption. The DOE's new energy efficiency standards for home refrigerators and freezers are expected to deliver more than \$200 in electric bill savings to a typical consumer over the lifetime of the appliance. The efficiency of air conditioning equipment, typically a residential customer's most energy intensive device, was increased by 30% due to new standards the DOE issued in 2010. The DOE is currently considering additional amendments to energy efficiency standards. At the state level, building code requirements established by the Florida Building Commission in 2008, per legislative

directive, have increased the energy performance of new buildings by at least 20% compared to the 2007 Energy Efficiency Code. State and Federal minimum efficiency standards for residential appliances and commercial equipment, along with building construction standards, compliment state level utility sponsored DSM programs, which are voluntary.

Utility programs offer rebates and incentives for appliances that exceed minimum efficiency standards, thereby avoiding duplicate savings estimates. However, as federal standards, independent conservation efforts by consumers, and general conservation practices increase, it may become more challenging for utilities to achieve enough increased savings through DSM programs to meet the rising goal levels.

Energy audits serve as the basis for all DSM and conservation programs by allowing utilities the opportunity to evaluate conservation opportunities for their customers. Pursuant to 366.82(11), F.S., all FEECA utilities are required to offer energy audits to residential customers. During 2010 Florida’s investor-owned utilities performed more than 225,000 residential energy audits. Through their demand-side management plans the FEECA utilities currently offer more than 100 conservation programs for residential, commercial, and industrial customers.

Since FEECA’s enactment, DSM programs are projected to reduce winter peak demand by an estimated 6,711 MW and annual energy by an estimated 8,000 GWh by 2011, as shown in Table 2. The demand savings from these programs have deferred the need for over 45 typical 150 MW combustion turbine units.

Table 2. Estimated Cumulative DSM Savings Since 1980

	Savings
Summer Peak Demand	6,626 MW
Winter Peak Demand	6,711 MW
Energy Consumption (Annual)	8,000 GWh

1.3 Conservation Cost Recovery

The costs to implement a DSM program consist of administrative, equipment, and incentive payments to the participants. The investor-owned electric utilities are permitted to recover prudent and reasonable expenses for Commission-approved DSM programs through the Energy Conservation Cost Recovery clause. Prior to seeking cost recovery through the ECCR clause, utilities must present evidence that DSM programs are cost-effective and, therefore,

benefit the general body of ratepayers. Any modifications to programs must also be approved by the Commission prior to a utility seeking program cost recovery through the ECCR clause.

Since 1981, Florida’s investor-owned electric utilities have recovered over \$5.4 billion of conservation expenditures through the ECCR clause, with approximately \$2.6 billion of conservation program expenditures in the last ten years. Table 3 illustrates the annual DSM expenditures recovered from customers by Florida’s investor-owned utilities. The table also shows that the investor-owned utilities’ annual expenditures have remained fairly stable from 2003 to 2007. This stability is primarily due to DSM programs reaching saturation in participation levels and a decline in the cost-effectiveness of DSM programs resulting from the lower cost of new generating units. From 2008 through 2010 the investor-owned utilities experienced increases in their DSM expenditures based on the addition and modification of certain programs, including new program measures and increases to incentive levels. The trend of increased DSM expenditures could continue as utilities continue to add or modify programs in order to meet the new goals established in 2009.

Table 3. DSM Expenditures Recovered Through the ECCR Clause

	FPL	PEF	TECO	Gulf	FPUC	Total
2001	\$157,660,093	\$64,831,597	\$17,600,060	\$4,984,286	\$358,054	\$245,434,090
2002	\$162,062,655	\$63,150,036	\$16,970,240	\$5,436,083	\$418,498	\$248,037,512
2003	\$150,026,657	\$62,156,585	\$17,518,874	\$7,313,033	\$381,563	\$237,396,712
2004	\$145,679,192	\$60,072,362	\$16,357,137	\$7,619,637	\$382,504	\$230,110,832
2005	\$144,192,696	\$59,143,076	\$15,583,727	\$8,826,754	\$473,610	\$228,219,863
2006	\$146,205,249	\$59,543,107	\$14,099,638	\$9,562,098	\$456,162	\$229,866,254
2007	\$146,204,978	\$67,109,815	\$13,652,585	\$9,107,952	\$515,022	\$236,589,592
2008	\$180,016,994	\$77,593,960	\$16,989,411	\$9,257,740	\$534,350	\$284,392,455
2009	\$186,051,381	\$80,954,071	\$32,243,415	\$10,576,197	\$540,433	\$310,365,497
2010	\$216,568,331	\$85,354,923	\$43,371,442	\$9,859,407	\$693,331	\$355,847,434
Total						\$2,606,260,241

During the annual ECCR proceedings in November of each year, the Commission determines an energy conservation cost recovery factor to be applied to the energy portion of each customer’s bill during the next calendar year. These factors are set based on each utility’s estimated conservation costs for the next calendar year, along with a true-up for any actual conservation cost under- or over-recovery for the previous year. The Commission most recently

set conservation cost recovery factors in November of 2011.² These factors took effect with the first billing cycle of 2012. Table 4 shows the electric investor-owned utilities' conservation cost recovery factors which will be applied to residential customer bills. These factors were applied to a bill based on 1,200 kilowatt-hour (kWh) energy usage to estimate the impact on a typical residential customer's monthly bill.

Table 4. Residential Conservation Cost Recovery Factors in 2012

Utility	Residential ECCR Factor (cents/kWh)	Monthly Bill Impact (based on 1,200 kWh)
FPL	0.287	\$3.44
PEF	0.288	\$3.46
TECO	0.302	\$3.62
Gulf	0.256	\$3.07
FPUC	0.115	\$1.38

Natural gas local distribution companies also offer conservation programs to their customers though the Commission does not set goals for these companies. The more popular natural gas programs are those that provide incentives for the replacement of less efficient appliances with more efficient versions. The gas distribution companies are permitted to seek recovery for their conservation programs pursuant to Commission Rule 25-17.015, F.A.C. Table 5 displays the local distribution companies' conservation cost recovery factors which will be applied to a typical residential customer's bill using 20 therms of natural gas per month.

Table 5. Residential Natural Gas Cost Recovery Factors in 2012

Utility	ECCR Factor (cents/therm)	Monthly Bill Impact (based on 20 therms)
Chesapeake Utilities	15.415	\$3.08
Florida City Gas	17.120	\$3.42
Florida Public Utilities	11.041	\$2.21
Peoples Gas System	3.324	\$0.66
St. Joe Natural Gas	7.304	\$1.46
Indiantown Gas Company	0.648	\$0.13
Sebring Gas System	12.785	\$2.56

² Order No. PSC-11-0531-FOF-EG, issued November 15, 2011, in Docket No. 110002-EG, In re: Energy Conservation Cost Recovery Clause; and Order No. PSC-11-0523-FOF-GU, issued November 7, 2011, in Docket No. 110004-GU, In re: Natural Gas Conservation Cost Recovery.

Section 2. Demand-Side Management Goals

2.1 Cost-Effectiveness

Demand-side management programs benefit the general body of electric utility ratepayers by deferring the need for future power plant construction, reducing current energy production costs, and improving reliability.

Section 366.82, F.S., requires utility conservation programs to be cost-effective. The Commission adopted Rule 25-17.008, F.A.C., which codifies the cost-effectiveness methodologies and cost and benefit information which must be submitted to the Florida Public Service Commission by utilities whenever an evaluation of the cost-effectiveness of an existing, new, or modified conservation program is requested. In order to obtain cost recovery, utilities must provide, at a minimum, a cost-effectiveness analysis of each program using three tests: the Participants test, the Ratepayer Impact Measure (RIM) test, and the Total Resource Cost (TRC) test. Each test is summarized below.

Participants test. The Participants test reviews costs and benefits from a program participant's point of view and ignores the impact on the utility and other ratepayers not participating in the program. The costs customers pay for equipment and maintenance are considered under the Participants test. Benefits considered in the test include incentives that are paid by the utility to the customers and a reduction in customer bills.

RIM test. The RIM test includes the costs associated with incentive payments to participants and decreased revenues to the utility which typically must be recovered from the general body of ratepayers at the time of a rate case. In particular, the RIM test is designed to ensure that all ratepayers, not just the program's participants, will benefit from a proposed DSM program. A DSM program that passes the RIM test ensures that all customer rates are lower than they otherwise would have been without the DSM program.

TRC test. The TRC test measures the overall economic efficiency of a DSM program from a societal perspective. This test measures the net costs of a DSM program based on its total cost, including both the participant's and the utility's costs. Unlike the RIM test, customer incentives and decreased revenues are not included as costs in the TRC test; instead, these factors are treated as transfer payments among ratepayers.

The Commission also requires investor-owned utilities to reevaluate programs on a regular basis. If a program is no longer cost-effective, the utility is required to file a petition

before the Commission to request changes to or discontinuation of the program. Conversely, if new programs become available which are cost-effective, the utility is required to file a petition before the Commission requesting inclusion of the new program.

New legislation enacted in 2008 amended the Florida Energy Efficiency and Conservation Act statute and placed upon the Commission additional responsibilities when adopting goals. These responsibilities include consideration of benefits and costs to program participants and ratepayers as a whole as well as the need for energy efficiency incentives for customers and utilities. The Commission must also evaluate the costs imposed by state and federal regulations on greenhouse gas emissions. In addition, the Commission is responsible for evaluating the technical potential of all demand-side and supply-side energy conservation measures, including demand-side renewable energy systems. The statute was also amended to allow the Commission to provide appropriate financial rewards and/or penalties to utilities over which it has rate-setting authority. Finally, the 2008 legislation authorized the Commission to allow an investor-owned utility to receive an additional return on equity of up to 50 basis points for exceeding 20 percent of its annual load growth through energy efficiency and conservation measures. The Commission's 2008 goal-setting proceeding was the first implementation of these modifications.

2.2 Commission-Established Goals

By Order No. PSC-09-0855-FOF-EG,³ issued December 30, 2009, the Commission established annual numeric goals for the FEECA utilities for summer peak demand, winter peak demand, and annual energy for the 2010 through 2019 period. The Commission determined that the annual numeric DSM goals for the investor-owned utilities (FPL, PEF, TECO, Gulf and FPUC) were to be based on the enhanced TRC (E-TRC) test and the top ten residential energy savings measures that have a two-year or less payback. The Commission also determined that the annual numeric goals for OUC and JEA were to be based on their current program levels so that the ratepayers of those municipal utilities are not unduly subjected to increased rates. The DSM goals of PEF and JEA were subsequently revised based on the Commission's reliance on incorrect discovery responses filed by these two companies.⁴ Table 6 provides the summer demand, winter demand, and annual energy goals ultimately approved by the Commission for each of the FEECA utilities.

Table 6. Commission Approved DSM Goals (2010-2019)

³ Order No. PSC-09-0855-FOF-EG, in Docket Nos. 080407-EG, 080408-EG, 080409-EG, 080410-EG, 080411-EG, 080412-EG, and 080413-EG, issued December 30, 2009.

⁴ Order No. PSC-10-0198-FOF-EG, in Docket Nos. 080408-EG and 080413-EG, issued March 31, 2010.

	Summer Demand Goals (MW)	Winter Demand Goals (MW)	Annual Energy Goals (GWH)
FPL	1,498	605	3,082
PEF	1,134	1,058	3,205
TECO	138	109	360
Gulf	144	110	574
FPUC	4	2	13
OUC	12	9	36
JEA	18	14	155
Total	2,948	1,907	7,425

2.3 DSM Plans and Programs

After setting the goals as described above, the Commission directed the utilities to file demand-side management plans designed to meet their goals as required by Section 366.82(7), Florida Statutes. On March 30, 2010, each of the FEECA utilities filed petitions requesting approval of their DSM plans for the ten-year period 2010 through 2019. The Commission approved the proposed plans of four utilities (OUC, JEA, FPUC and TECO) in 2010.⁵ Gulf's proposed DSM plan was approved in February of 2011.⁶ The plans proposed by FPL and PEF were not approved in 2010. Instead, in 2011, the Commission modified and approved the plans of FPL and PEF; the modifications consisted of a continuation of existing programs. The Commission determined these programs would still produce significant energy savings but have a much smaller rate impact on customer bills. Thus, the Commission directed FPL and PEF to continue their existing programs currently in effect through orders issued August 16, 2011.⁷ In addition, these orders clarified how the Commission would view the future performance of FPL and PEF with regard to potential rewards and penalties contemplated under Section 366.82(7), F.S. The Commission determined that neither FPL nor PEF shall be eligible for any financial reward unless it exceeds the goals established by the Commission. Conversely, neither FPL nor PEF shall be subject to any financial penalty unless it fails to achieve the savings projections contained in their approved DSM plans. On September 6, 2011, the Southern Alliance for Clean

⁵ Order No. PSC-10-0554-PAA-EG, in Docket No. 100161-EG, issued September 3, 2010; Order No. PSC-10-0609-PAA-EG, in Docket No. 100157-EG, issued October 4, 2010; Order No. PSC-10-0678-PAA-EG, in Docket No. 100158-EG, issued November 12, 2010; Order No. PSC-10-0736-PAA-EG, in Docket No. 100159-EG, issued December 20, 2010.

⁶ Order No. PSC-11-0114-PAA-EG, in Docket No. 100159-EG, issued February 11, 2011.

⁷ Order No. PSC-11-0346-PAA-EG, in Docket No. 100155-EG, issued August 16, 2011 and Order No. PSC-11-0347-PAA-EG, in Docket No. 100160-EG, issued August 16, 2011.

Energy (SACE) protested the Commission’s August 16, 2011 orders.⁸ The Commission accepted briefs from parties on the issues, heard oral arguments from the parties on December 6, 2011, and voted to deny SACE’s protest the same day. On January 17, 2012, SACE filed a Notice of Administrative Appeal of the Commission’s decision with the Florida Supreme Court.⁹

As discussed in the preceding paragraph, once goals are established, utilities are required to file the plans they have designed to meet those goals for Commission approval. The utilities plans did not receive final approval until late 2010 or 2011. Investor-owned utilities are also required to take the additional step of submitting their program standards to the Commission for approval prior to implementation. Program standards for the IOUs received final approval in 2011. Consequently, throughout calendar year 2010, with the exception of JEA and OUC, the FEECA utilities were still operating programs designed to meet the goals that were set in 2004. While this delay does not excuse the utilities from meeting the new goals, it does warrant further evaluation methods since investor-owned utilities failing to meet annual goals could be subject to penalties as authorized by Section 366.82(8), F.S. The timeline indicating approval of each utility’s DSM plan and program standards is shown in Table 7 below.

Table 7. Timeline of Plan and Program Standard Approval

Utility	DSM Plan	Program Standards
FPL	July 2011	July 2011
PEF	July 2011	July 2011
TECO	Dec 2010	Mar 2011
Gulf	Feb 2011	Apr 2011
FPUC	Nov 2010	Feb 2011
JEA	Oct 2010	N/A
OUC	Sept 2010	N/A

Solar Programs

Pursuant to Order No. PSC-09-0855-FOF-EG, the Commission directed the investor-owned utilities to spend 10 percent of their historic energy conservation cost recovery

⁸ Southern Alliance for Clean Energy’s Protest of Order No. PSC-11-0346-PAA-EG, dated September 6, 2011, in Docket No. 100155-EG, In re: Petition for Approval of Demand-side Management Plan of Florida Power and Light Company; and Southern Alliance for Clean Energy’s Protest of Order No. PSC-11-0347-PAA-EG, dated September 6, 2011, in Docket No. 100160-EG, In re: Petition for Approval of Demand-side Management Plan of Progress Energy Florida, Inc.

⁹ Notice of Administrative Appeal; Southern Alliance for Clean Energy, Appellants, vs. Florida Public Service Commission, Florida Power and Light Company, and Progress Energy Florida, Inc., Appellees, filed January 17, 2012 in Dockets 100155-EG and 100160-EG (Commission Document Number 00318-12).

expenditures as an annual cap for solar water heating and solar photovoltaic pilot programs. Therefore, as part of their proposed DSM plans, each of the investor-owned utilities also proposed solar programs. The Commission approved each of these solar programs in 2010, with the exception of FPL, whose solar programs were approved in 2011. These solar programs were approved as pilots because the Commission wanted to encourage solar renewable systems even though none of the programs were found to be cost-effective under any of the measures used for analysis (E-RIM, E-TRC or Participants tests). Table 8 represents the Commission approved annual expenditures for the solar technologies.

Table 8. Commission Approved Annual Expenditures for Solar Technologies

Utility	Commission Approved Annual Expense
FPL	\$15,536,870
Gulf	\$900,338
PEF	\$6,467,592
TECO	\$1,531,018
FPUC	\$47,233
Total	\$24,483,051

It is noteworthy that upon approval, many of the programs offering rebates for installing residential solar PV systems were fully subscribed within hours. This subscription rate indicates a high customer demand for this type of solar technology. In addition, this subscription rate also indicates that the financial incentive being offered to customers for installing solar PV systems could be reduced and still remain effective. Other types of solar pilot programs that will utilize the approved annual funding are solar thermal (water heating), energy education and PV panels for schools.

2.4 Assessing Goal Achievement

This report assesses goal achievement in several ways. The Commission set separate goals for residential and commercial/industrial (C/I) customers, therefore, goal achievement is evaluated for these two customer categories. Achievements for these categories are also combined and compared against total goals for each utility as the value of demand and energy savings on a system basis is not related to whether the savings occur in the residential or business sector. In addition, cumulative goals and achievements are assessed over several years which allows for variations in customer participation.

Data collection for assessing goal achievement included the annual reports filed by FEECA utilities on March 1, 2010, as required by Rule 25-17.0021, Florida Administrative Code. In addition, each of the FEECA utilities were required to respond to multiple data requests regarding the energy reductions achieved across customer categories for various time periods and to provide explanations for certain results. Some companies had to make adjustments to previously provided information due to data entry errors or use of incorrect reporting format. Some of these adjustments were initiated by the utility upon discovery of reporting errors and others were requested by staff based upon review of previously submitted data.

Monitoring annual achievements allows the Commission to have a better understanding regarding which utility programs may need additional evaluation or revision. In order to provide the most complete picture possible, annual residential, C/I, and total goal and savings figures are provided in Table 9. Also, as discussed in Section 2.3, most utilities had not implemented their new programs during 2010, therefore cumulative savings achievements over the past six years are compared with cumulative goals using the 2005-2009 annual goals which were set in 2004 added to the new 2010 goals. These figures covering the years 2005-2010 are presented in Table 10 on page 19.

Table 9. DSM Goals Compared to Annual (2010) Achievements

Utility	Winter (MW)		Summer (MW)		Annual (GWH)	
	Goals	Reduction	Goals	Reduction	Goals	Reduction
FPL						
Residential	33.2	38.2	67.7	92.9	119.6	141.3
Commercial/Industrial	8.1	21.3	42.7	36.2	84.7	62.8
Total	41.3	59.5	110.4	129.1	204.3	204.1
PEF						
Residential	81.3	85.0	79.6	44.0	261.6	59.0
Commercial/Industrial	5.3	32.0	13.7	36.0	31.1	65.0
Total	86.6	117.0	93.3	80.0	292.7	124.0
TECO						
Residential	6.4	11.3	4.6	8.1	9.8	17.3
Commercial/Industrial	0.9	7.2	2.5	11.1	6.5	18.3
Total	7.3	18.5	7.1	19.2	16.3	35.6
Gulf						
Residential	5.9	-1.0	7.5	-0.6	35.0	-0.1
Commercial/Industrial	0.5	3.1	1.2	5.9	3.2	2.0
Total	6.4	2.1	8.7	5.3	38.2	1.9
FPUC						
Residential	0.1	0.5	0.2	0.2	0.5	0.5
Commercial/Industrial	0.1	0.1	0.2	0.1	0.8	0.3
Total	0.2	0.6	0.4	0.3	1.3	0.8
JEA						
Residential	1.0	2.5	1.2	2.1	5.4	13.7
Commercial/Industrial	0.4	1.5	0.6	1.1	10.1	13.2
Total	1.4	4.0	1.8	3.2	15.5	26.9
OUC						
Residential	0.2	0.8	0.5	1.0	1.8	3.0
Commercial/Industrial	0.7	0.9	0.7	1.7	1.8	5.8
Total	0.9	1.7	1.2	2.7	3.6	8.8

Table 9 compares the new DSM goals to savings by each utility during 2010. Based on the new annual goals established for 2010 and the reported savings achieved in the residential and C/I sectors, only TECO, JEA, and OUC each exceeded their demand and energy savings goals in every category. FPL, PEF, Gulf, and FPUC each exceeded their annual goals in some categories for at least one customer sector during 2010. A more detailed description of each utility's performance follows below.

FPL, when evaluated on an annual basis, exceeded its residential goals in all categories but fell short of its C/I goals in the summer demand and energy category by 6.5 MW and 21.9 GWH respectively. FPL's performance met or exceeded the combined goals on a system-wide basis in all but the annual energy category where the company was two-tenths of a percent short of the goal. FPL stated in its annual DSM Report filed March 1, 2011, that it was "... unable to achieve its summer demand and energy goals in the business sector because the level of incentives needed to increase participation in order to meet the higher goals set by the Commission in 2009 have not been approved as yet." As noted previously, the Commission did not approve a new DSM plan for FPL, instead, the Commission voted to allow the company to continue with its existing plan, since that plan would lead to continued energy savings and avoid an undue customer rate impact. Therefore, the company's existing programs will also remain in place. However, FPL may petition the Commission for permission to add, remove, or modify any of the programs as the company continually evaluates program effectiveness.

PEF exceeded its C/I goals in all categories during 2010. PEF failed to meet its residential goals in the summer demand and energy category by 35.6 MW and 202.6 GWH, respectively. Due to its shortcomings in the residential class, PEF's total performance was 13.3 MW short of meeting summer demand goals and 168.7 GWH short of annual energy goals on a system-wide basis. PEF's March 1, 2011, annual DSM Report stated "... PEF was unable to meet the residential established goals as the Company is awaiting approval of its DSM Plan. Upon approval, programs designed to meet the new goals will be implemented." As noted previously, the Commission did not approve a new DSM plan for PEF, instead, the Commission voted to allow the company to continue with its existing plan, since that plan would lead to continued energy savings and avoid an undue customer rate impact. Therefore, the company's existing programs will also remain in place. However, PEF may petition the Commission for permission to add, remove, or modify any of the programs as the company continually evaluates program effectiveness.

TECO exceeded its goals in all categories for both residential and C/I. In total, TECO's performance in the winter demand category exceeded combined goals by 11.2 MW, summer demand combined goals by 12.1 MW, and annual energy combined goals by 19.3 GWH.

Gulf failed to reach any of its residential goals due to several programs experiencing net reductions in customer participation. Gulf exceeded its goals for C/I winter and summer demand but was 1.2 GWH short of its C/I energy goal. Gulf's explanation for not reaching all of its goals was that it did not have its new DSM plan in place during 2010 as its plan was not approved until February 2011 and the program standards were not approved until April 2011. Therefore, Gulf continued to rely on three programs for residential demand and energy savings: EnergySelect, GoodCents Home/Energy Star and Geothermal Heat Pump. Gulf also stated "Other factors

outside the Company's control which affected these programs also contributed to Gulf's lack of goal achievement." The Energy Select program required the conversion of legacy equipment associated with landline telephones to new equipment utilizing a broadband internet connection. A dramatic downturn in new home construction in Gulf's service area caused a drop in participation in the Company's GoodCents Home/Energy Star program. According to Gulf, recent changes to the program now provide more flexibility for customers by offering incentives based on individual measures for improvements to existing as well as new homes. The Geothermal Heat Pump program was also affected negatively by the economy. Gulf believes the economic rebound and an increase in new housing starts will increase the potential market for these programs. With regard to its failure to meet its C/I energy goal, Gulf stated that the sharp downturn in the economy had a negative impact on participation and that its new C/I programs were not in place during 2010. Some of the C/I programs have now been replaced with programs that offer customers similar options paired with incentives to help offset the costs required to implement the measures in the customers' businesses. In response to staff data requests regarding its poor performance, the company wrote "Gulf's new DSM plan was designed to provide program offerings that meet the Commission goals while at the same time, providing our customers a much broader variety of programs. Gulf expects that the new DSM plan will reach more of Gulf's customers and ultimately reduce impacts on the Company's goal achievement by unforeseen issues in an isolated number of programs." Gulf began implementation of its new DSM plan in June of 2011.

FPUC met or exceeded its residential goals but failed to meet its commercial/industrial goals in the summer demand or annual energy categories. FPUC's shortcomings in the C/I class resulted in its total performance falling short of meeting summer demand or energy goals on a system-wide basis by 0.1 MW and 0.5 GWH respectively. In its March 1, 2011, annual DSM Report FPUC explained that during 2010 it was still operating programs designed to meet the goals the Commission established in 2004. In addition, the economic recession during 2010 negatively impacted FPUC's C/I programs. FPUC stated that the only C/I program it offered during 2010 that did not require customer expenditures exceeded its projected number of participants while the rest of its C/I programs had lower than projected participation rates, indicating that customers simply did not have money to spend up front.¹⁰ FPUC's new DSM Plan, developed to meet the new goals, contains significant changes to programs based on lessons learned from its previous DSM Plan. For example, FPUC has increased emphasis on C/I sector with the addition of three new C/I programs and discontinued other programs found to be ineffective.

¹⁰ Response to Staff's Fourth Data Request received October 24, 2011.

Both of the municipal utilities, JEA and OUC, exceeded their goals in every category for both residential and C/I customers, as shown in Table 9.

The utilities cumulative demand and energy savings are also quantified and compared with the cumulative Commission-established goals over the past six years, encompassing both the 2004 and 2010 established annual goals. Typically, the Commission looks at cumulative achievement starting when goals are revised. However, because 2010 is the first year since goals were revised, the 2010 annual and 2010 cumulative savings are the same and inconclusive. Therefore, Table 10 uses a hybrid benchmark of the goals set for years 2005-2009 plus the new 2010 goals. Viewing achievements on a cumulative basis allows the Commission to consider the savings a utility has achieved over a longer period of time and can account for variations in customer participation. Cumulative savings based on responses to staff data requests are presented for a six year period in Table 10. On a state-wide basis, the FEECA utilities total achievements have exceeded goals over the past six years, as shown below.

Table 10. Cumulative Goals vs. Savings Over Six Years (2005-2010)

	Winter Peak MW		Summer Peak MW		Energy GWH	
	Goals	Savings	Goals	Savings	Goals	Savings
FPL	286.2	489.7	514.8	848.1	745.7	1184.2
PEF	279.0	533.0	158.0	354.0	388.0	423.0
TECO	41.8	106.0	40.0	109.8	78.9	162.3
Gulf	68.6	31.8	79.0	48.6	67.3	43.1
FPUC	1.3	2.6	1.6	1.6	4.2	4.1
JEAA	1.4	13.7	1.8	10.8	15.5	107.1
OUC	0.9	1.7	1.2	2.7	3.6	8.8
Total	679.2	1178.6	796.4	1375.5	1303.2	1932.6

For the most part, with the exception of Gulf, the FEECA utilities have been successful in meeting demand and energy goals over the past six years on a cumulative basis as shown in the total figures of Table 10. Though Gulf did not successfully meet its goals based on this hybrid approach, the explanations offered by company appear to be reasonable – programs designed to meet the new goals were not in effect during 2010 and, as discussed in previous FEECA reports, customer participation in the programs the company relied upon was reduced due to the economic downturn.

These mixed results reflect a time of transition as the FEECA utilities must adjust their programs to meet new goals and utilize new technologies, control program costs, and respond to customer expectations. The Commission will continue to monitor utility achievements on an

ongoing basis. Though Section 366.82(8), F.S. gives the Commission the authority to financially reward or penalize a company based on whether its conservation goals are achieved, the Commission concluded in Order No. PSC-09-0855-FOF-EG, that a limited proceeding may be used to establish such a reward or penalty. As 2010 is the first year the Commission is measuring savings under the new goals and no investor-owned utility had new programs in place during 2010, it is premature to contemplate the establishment of rewards or penalties at this time.

Section 3. Overview of Florida’s Electricity Market

3.1 Energy Demand in Florida

Because of its large population and fluctuating climate, Florida’s total energy consumption ranks among the highest in the country. Florida’s electrical demand and energy consumption follow unique patterns because of the state’s largely residential customer base. Understanding this pattern and why it occurs, mostly due to high air-conditioning loads during the hot summer months and electricity use for home heating during winter months, is key to grasping conservation’s importance in Florida. As shown in Table 11, residential customers comprise almost 89 percent of Florida’s electricity customers and purchase about 54 percent of electrical energy in the state. Commercial electrical energy usage in Florida is about 37 percent, and industrial customers purchase the remaining 9 percent of Florida’s electrical energy.

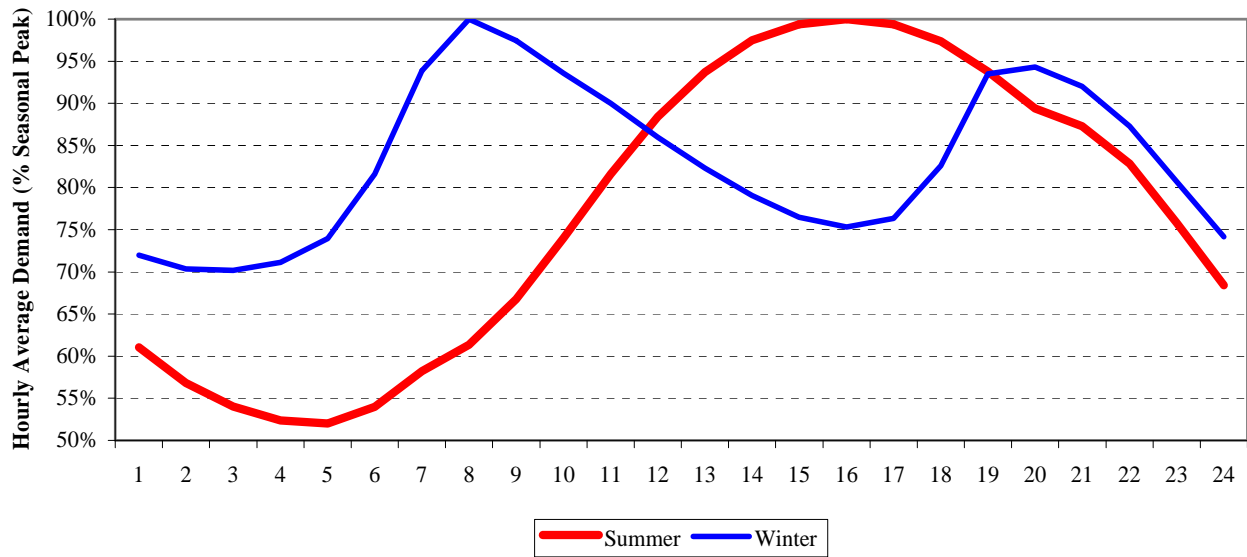
Table 11. Florida's Electric Customers by Class and Consumption in 2010

Customer Class	Number of Customers	% of Customers	Energy Sales (gigawatt-hours)	% of Sales
Residential	8,324,256	88.7	118,870	54.1
Commercial	1,030,955	11.0	80,182	36.5
Industrial	27,043	0.3	20,708	9.4
Total	9,382,254	100.0	219,760	100.0

Florida’s high temperatures and humidity levels cause residential customers’ electrical usage to fluctuate throughout the day. Residential energy use peaks in the early evening in the summer and in the mid-morning and late evening in the winter compared to industrial use, which tends to be more uniform throughout the day. These usage patterns cause a need for greater variation in the amounts of energy consumed in Florida than in other states with higher industrial energy usage rates and smaller populations.

Figure 1 depicts the daily load shape curves for typical summer and winter days in Florida. In the summer, customer demand begins to increase in the morning and peaks in the early evening, a pattern which corresponds to the sun heating buildings and the resulting increase in air conditioning loads. In contrast, the winter load curve has two peaks, the largest in mid-morning, followed by a smaller peak in the late evening. Both winter peaks correspond to heating loads.

Figure 1. Typical Florida Daily Electric Load Shapes



In the past few years, Florida has experienced a trend in which the winter peak demand has exceeded summer peak demand. For example, in 2010, Florida’s winter peak demand was 48,872 MW compared to 48,385 MW in the summer of 2010.

3.2 Florida’s Electric Generating Resources

An electric utility’s resource-planning process is designed to ensure sufficient installed capacity exists to meet projected customer demand and provide a reserve for contingencies. During the planning process, once the timing of capacity additions is determined, the technology and fuel type to provide the energy is chosen. Generating plants are generally categorized as base load, peaking, or intermediate. Base load units operate continuously with the exception of planned outages. Peaking units operate less frequently, mostly at times of highest demand. Intermediate units provide power to follow load for periods longer than peaking units, but not as continuously as base load units. Utility-sponsored conservation programs help to lessen peak demand and energy consumption, which as a result, postpones the need for new generating capacity.

Florida’s electric utility industry is comprised of the following types of companies:

- 5 investor-owned electric utilities
- 33 municipally owned electric utilities
- 18 rural electric cooperatives

Collectively, these utilities currently possess 52,847 MW of summer electric generating capacity and 54,935 MW of winter generating capacity. Non-utility generators in the state provide an additional 4,758 MW of summer electric generating capacity and 5,170 MW of winter generating capacity. Supplementary capacity is purchased from out-of-state utilities over the Florida-Georgia transmission interties.

Historically, Florida's electric utilities pursued fuel diversity by maintaining a balanced fuel supply with a relative mix of energy generation from coal, nuclear, natural gas, oil, and other sources. However, Florida's utilities in the early 1990s began to rely more on natural gas to meet the increasing need for energy because of its low prices and availability. Between 1990 and 2010, most new generating capacity constructed in Florida was natural gas-fired, increasing the percentage of the state's total energy generated by gas from 11.4 percent in 1990 to approximately 50.8 percent in 2010. Natural gas is projected to provide over 55.5 percent of Florida's energy in 2020. The price volatility associated with natural gas has caused concern regarding the ratepayers' ability to afford their electric bill.

The topic of fuel diversity has garnered much interest from Florida lawmakers and the Commission. Utilities have acted on those concerns by planning for other resources besides natural gas for electric generation. Renewable energy facilities currently account for approximately 1,282 MW of installed capacity. In 2010, the Public Service Commission approved the need for a 100 MW biomass facility requested by Gainesville Regional Energy Center and Gainesville Utilities. In 2011, the Commission approved the need to expand an existing renewable energy facility by adding between 70 and 80 MW of additional capacity requested by the Solid Waste Authority of Palm Beach. In recent years the Commission also approved four new nuclear plants (FPL's Turkey Point Units 6 and 7 and Progress' Levy Units 1 and 2.) Progress' Levy Units 1 and 2 have been certified by the Governor and Cabinet and have projected in-service dates of 2021 and 2022, respectively. FPL's Turkey Point 6 and 7 are projected to be in-service in 2022 and 2023 respectively, but have yet to receive certification. The Commission also approved uprates to FPL's and PEF's existing nuclear facilities that will allow an increase in the amount of capacity generated at each facility. Combined, the four new nuclear facilities and the uprates will add approximately 4,965 MW of additional nuclear capacity in Florida when placed into service.

Despite the focus on fuel diversity and the approval of the aforementioned nuclear units, natural gas still is projected to provide over 55.5 percent of Florida's energy in 2020. To ensure Florida can sustain and afford its growing need for energy, utilities must pay special attention to DSM, conservation, renewable energy, and public education efforts.

Section 4. Educating Florida's Consumers on Conservation

The Commission's consumer education program employs a variety of tools to share conservation information with consumers via the PSC Web site, e-mail, public events, brochure distribution, and press releases. Conservation information is also available to consumers through other governmental and utility Web sites. Section 4.1 supplies a list of related Web sites belonging to state and federal entities, investor-owned electric utilities, and local gas distribution companies to assist consumers in researching additional conservation opportunities.

Electronic Outreach

An assortment of information is available on the PSC Web site to help consumers save energy. According to Google Analytics, during the 2011 calendar year, more than 309,472 people accessed the PSC Web site consumer pages. One of the more popular Web site destinations was the PSC's Energy Conservation House, with more than 58,401 visitors in 2011. The interactive graphic provides informative "point and click" conservation tips for the home, helping consumers discover ways to reduce their monthly utility bills. The Energy Conservation House may be viewed at <http://www.floridapsc.com/consumers/house/>.

The Commission features several energy conservation brochures online and in print that help homeowners save energy. Brochures may be viewed and printed directly from the Web site, <http://www.floridapsc.com/publications/>, ordered free via an online order system, or requested by mail or phone. For the 2011 calendar year, 69,858 brochures were requested to be sent by mail.

With its interactive redesign, the PSC's quarterly *Consumer Connection E-Newsletter* features current energy and water conservation topics and consumer tips. Using both text and You Tube video, consumer tips highlighted in 2011 include *How to Best Water Your Lawn*, *Springtime Watering Strategy*, *Three Words on Conservation*, and *Beware of False Energy Audits*. This year, the *Consumer Connection E-Newsletter* was "tweeted" for the first time by the PSC and was also sent to state agency communications directors to expand its distribution. Assisting consumers with conservation information since 2005, all PSC consumer newsletters and consumer tips are available on the Commission's Web site at <http://www.floridapsc.com/consumers/newsletter/index.aspx> and <http://www.floridapsc.com/consumers/tips/>.

National Consumer Protection Week (March 6-12, 2011)

National Consumer Protection Week (NCPW) played a significant role in the PSC's 2011 conservation education efforts. NCPW highlights consumer protection and education efforts around the country. This year's national theme, *Information Destination*, focused on the importance of agencies providing widespread consumer information/education. The PSC built on the national theme in the spirit of conservation: *The PSC...Your Conservation Information Destination!*

Kicking off NCPW, the PSC Chairman issued a challenge to his fellow Commissioners to find their *Conservation Information Destination*. Commissioners earned various points by tracking their conservation efforts on a scorecard for one month. Among the conservation choices, the Commissioners could record their energy usage, sign up for energy audits, practice energy efficiency while washing and drying clothes, or install CFL bulbs. For extra credit, they could encourage friends to use a CFL bulb or install a low-flow showerhead, or they could help conservation education by distributing the PSC's *Get Wise and Conserve Florida!* booklets to students.

PSC staff provided NCPW presentations in Miami, Jacksonville, Pensacola, and Tampa to help Florida's seniors and other consumers save money on their telephone and utility bills. Presentations at all Florida NCPW events featured information about reducing utility expenses through conservation, and consumers received educational brochures containing tips on energy and water conservation.

Community Events

The PSC participates in consumer programs and distributes conservation-related materials through partnerships with governmental entities, consumer groups, and many other organizations. Examples of events where conservation information was shared during 2011 include: Ambassadors for Aging Day; Active Living Expo; Earth Day at the Capitol; Housing Authorities in Miami-Dade, Orlando, and Tampa; Community Days in Homestead, Riviera Beach, Orlando, and Tampa; Senior Days in Tallahassee, and Madison and Franklin Counties; Orange County Housing Community and Development; William Beardall Center; Felix Miga Senior Citizen Center; Eatonville Neighborhood Center for Families; Marks Street Senior Center; Palm Beach County Community Services; Department of Elder Affairs Communities for a Lifetime Initiative; Affordable Housing Services; and Section 8 Housing Choice Voucher Program.

Hearings and Customer Meetings

As an ongoing outreach initiative, the Commission supplies conservation brochures to consumers at PSC hearings and customer meetings across the state. During 2011, there were 24 PSC public meetings where staff distributed information and addressed consumer questions. Consumers who file a complaint with the Commission about high electric or natural gas bills also receive conservation information.

Library Outreach Program

The Commission's Library Outreach Program is an effective consumer education program with a statewide impact. Each year the PSC provides educational brochures to 280 Florida public libraries for distribution to consumers. This year, the Commission increased its program participants by sending educational brochures to 53 new library branches for a total of 333 public libraries across the state. Special emphasis is placed on publications that feature practical energy and water conservation tips.

In 2011, more than 25,000 brochures were sent to, or requested by, Florida's libraries. Annual survey results from library administrators indicate their continuing support for the program and their willingness to partner with the Commission on future outreach projects. Many libraries also request additional materials throughout the year to maintain brochure supplies for library patrons.

Media Outreach

News releases are distributed to the media on major Commission decisions, meetings, and public events. The Office of Public Information also issues news releases urging conservation. For instance, in March releases touted the federal government's *Fix a Leak Week* and the PSC's *Conservation Information Destination*, where several water and energy conservation strategies were shared. In June, the Commission published a release on the growing number of Floridians using renewables to generate their own electricity, and a Commission Web site *Hot Topic* advised consumers on how electric companies schedule energy audits.

Youth Education

The Commission has placed increased emphasis on teaching Florida's young consumers as an effective way to expand conservation education. In 2011, the PSC participated in the Earth

Day celebration at the Florida Capitol, and PSC staff provided students and their teachers with energy and water conservation tips to use on campus and at home.

During 2011, the PSC continued to produce its *Get Wise and Conserve Florida!* student resource booklet to teach children about energy and water conservation. The booklet has been distributed to all public libraries through the Library Outreach Program and is available at all senior outreach events, community events, and at Earth Day. The student resource book has also become a favorite during senior events.

Two conservation plays, *Turn It On, Turn It Off* and *Water Wiser*, were developed by the PSC to be performed by teen drama groups or young school children for their classmates, thereby increasing the students' interest in learning about conservation. The PSC helped produce both plays in recent years, and the Commission continues to work with school programs that are interested in producing these plays. Both plays are included in the *Arts in Education Directory*, produced by the Tallahassee-Leon County Council on Culture and Arts, that serves as a resource guide for teachers seeking information about educational programs available in the area.

Energy Awareness Month in October provided an opportunity to partner with schools' Green Teams to explore conservation in education. Last October, a PSC Commissioner and staff engaged students at Tallahassee's Montford Middle School in a review of their families' energy needs by highlighting the importance of reducing daily energy consumption.

During the exercise, students took charge of their families' utility bills by using play money in either their "me" bank or in the "utility" bucket. When the money was counted, students learned how conserving energy can put more spending money in their pockets. A local high school's multi-media team also participated, demonstrating the media's important role in promoting better public understanding of Florida's future energy needs. Lincoln High School in Tallahassee produced an Energy Awareness Month program that aired on Tallahassee's Leon County School Board's cable channel 23.

Montford Middle School is one of two Leon County schools participating in "Schools on Solar," providing students with a first-hand education on energy conservation and renewable energy. According to the City of Tallahassee, each participating school has been equipped with a Solar Thermal System for producing hot water and a Solar Voltaic System for producing electricity.

Section 4.1 Related Web Sites

State Agencies and Organizations

Florida Public Service Commission – <http://www.floridapsc.com/>

Florida Department of Environmental Protection – <http://www.dep.state.fl.us>

The Office of Energy <http://www.freshfromflorida.com/offices/energy/>

Florida Solar Energy Center – <http://www.fsec.ucf.edu/>

Florida Weatherization Assistance –
<http://www.floridacommunitydevelopment.org/wap/index.cfm>

Florida's Local Weatherization Agencies List –
<http://www.floridacommunitydevelopment.org/CommunityAssistanceContactList.pdf>

U.S. Agencies and National Organizations

National Energy Foundation – <http://www.nef1.org/>

U.S. Energy Star Program – <http://www.energystar.gov/>

U.S. Department of Energy – Energy Efficiency and Renewable Energy Information -
<http://www.eere.energy.gov/>

U.S. Department of Energy – Consumer Energy Efficiency Tips –
http://www.eere.energy.gov/consumer/your_home/

U.S. Department of Energy – Consumer Energy Saving Information –
<http://www.energysavers.gov/>

Florida's Electric Utilities Subject to FEECA

Florida Power & Light Company – <http://www.fpl.com/>

Florida Public Utilities Company – <http://www.fpuc.com/>

Tampa Electric Company – <http://www.tampaelectric.com/>

Gulf Power Company – <http://www.gulfpower.com/>

Progress Energy Florida, Inc. – <http://www.progress-energy.com/>

Orlando Utilities Commission – <http://www.ouc.com/>

JEA – <http://www.jea.com/>

Florida's Investor-Owned Natural Gas Utilities

Chesapeake Utilities Corporation (Central Florida Gas) – <http://www.cfgas.com/>

Florida City Gas – <http://www.floridacitygas.com/>

Florida Public Utilities Company – <http://www.fpuc.com/>

Peoples Gas System – <http://www.peoplesgas.com/>

St. Joe Natural Gas Company – <http://www.stjoenaturalgas.com/>

Section 5. The Florida Energy Conservation Standards Act

Section 553.954, F.S., directs the Department of Business and Professional Regulation (DBPR) to adopt, modify, revise, update, and maintain the Florida Energy Conservation Standards. Section 553.963, F.S., lists the appliances whose energy-efficiency standards are monitored by the DBPR. Those appliances include refrigerators, refrigerator-freezers, lighting equipment, and showerheads.

Pursuant to Section 553.975, F.S., the Commission must report the effectiveness of energy conservation standards in the state. Federal and state building codes and appliance efficiency standards create a baseline for the cost-effectiveness of any new utility sponsored DSM program. Utility programs offer rebates and incentives for appliances that exceed minimum efficiency standards, thereby avoiding duplicate savings estimates. Florida's appliance efficiency standards are mandatory efficiency improvements but have not been updated since 1993 and therefore have likely been superseded by more recent federal efficiency standards. For example, the DOE's new energy efficiency standards for home refrigerators and freezers are expected to deliver more than \$200 in electric bill savings to a typical consumer over the lifetime of the appliance. As appliance efficiency standards improve, the cost-effectiveness of voluntary utility sponsored DSM programs may be reduced.

Appendix 1. Conservation Activities of FEECA Utilities

Additional information about these programs is available through the FEECA utility websites listed.

A. Florida Power & Light Company (<http://www.fpl.com/>)

Residential Programs

Residential Building Envelope. This program encourages qualified customers to install energy-efficient building envelope measures that cost-effectively reduce FPL's coincident peak air-conditioning load and customer energy consumption.

Duct System Testing and Repair Program. This program identifies air conditioning duct system leaks and has qualified contractors repair those leaks.

Residential Air Conditioning Program. This program provides financial incentives for residential customers to purchase a more efficient unit when replacing an existing air conditioning system.

Residential Load Management Program (On Call Program). This program offers voluntary load control to residential customers.

Residential New Construction Program (BuildSmart). The program's objective is to encourage the design and construction of energy-efficient homes that cost-effectively reduce FPL's coincident peak load and customer energy consumption.

Residential Low Income Weatherization Program. This program employs a combination of energy audits and incentives to encourage low-income housing administrators to perform tune-ups of heating and ventilation air conditioning (HVAC) systems and install reduced air infiltration energy efficiency measures.

Commercial/Industrial Programs

Business Heating, Ventilating, and Air Conditioning Program. This program reduces the current and future growth of coincident peak demand and energy consumption of business customers by increasing the use of high efficiency heating, ventilating, and air conditioning systems.

Business Efficient Lighting. This program encourages the installation of energy efficient lighting measures in business facilities.

Business Customer Incentive. This program assists FPL's business customers achieve electric demand and energy savings that are cost-efficient to all FPL customers. FPL provides incentives to qualifying customers who purchase, install, and successfully operate cost-effective energy efficiency measures not covered by other FPL programs.

Business Building Envelope Program. This program encourages eligible business customers to increase the efficiency of the qualifying portion of their building's envelope to reduce HVAC energy consumption and demand.

Business On Call Program. This program offers voluntary load control of central air conditioning to General Service and General Service Demand customers.

Commercial Demand Reduction. This program reduces coincident peak demand by controlling customer loads of 200 kW or greater during periods of extreme demand or capacity shortages.

Business Energy Evaluation. This program provides evaluations of business customers' existing and proposed facilities and encourages energy efficiency by identifying DSM opportunities and providing recommendations to the customer.

Commercial/Industrial Load Control. This program reduces coincident peak demand by controlling customer loads of 200 kW or greater during periods of extreme demand or capacity shortages.

Cogeneration and Small Power Production. This program facilitates the installation of cogeneration and small power production facilities.

Business Water Heating. This program encourages business customers to install qualifying heat recovery units (HRU) or heat pump water heater (HPWR) equipment.

Business Refrigeration Program. This program encourages eligible business customers to install energy-saving equipment to reduce or eliminate the use of electric heating elements needed to prevent condensation on display case doors and to defrost freezer doors.

Research and Development and Pilot Programs

Conservation Research and Development Program. This program evaluates emerging conservation technologies to determine which are worthy of further evaluation as candidates for program development.

Residential Thermostat Load Control Pilot Project. This project provides participating residential customers a programmable thermostat and the option of overriding FPL's control of their central air conditioning and heating appliances via telephone or the Internet.

Solar Pilot Programs

Business PV Program. This pilot program is available to all existing FPL business customers. Customers will receive a rebate to be applied toward the purchase of a qualifying PV system, technical assistance from FPL and reduced energy consumption.

Residential PV Program. This pilot program is available to all existing FPL residential customers. Customers will receive a rebate to be applied towards the purchase of a qualifying PV system, technical assistance from FPL and reduced energy consumption.

PV for Schools Program. This pilot program is available to all existing K-12 public schools served by FPL. Each school will receive a PV system, teacher training and educational materials, in addition to the reduced energy consumption and technical assistance on the operation of the PV system.

Business Solar Water Heating Program. This pilot program encourages customers to install solar water heating system in a business and is available to all existing FPL business customers with electric or gas water heating. Customers will receive a rebate towards the purchase of a qualifying solar water heating system, technical assistance from FPL and reduced energy consumption.

Residential Solar Water Heating Program. This pilot program encourages customers to install solar water heating system in a residential dwelling and is available to all existing FPL residential customers with electric or gas water heating. Customers will receive a rebate towards the purchase of a qualifying solar water heating system, technical assistance from FPL and reduced energy consumption.

Residential Solar Water Heating (Low Income New Construction)Program. This pilot program is available to new construction residential dwellings or existing dwellings that are being refurbished specifically for low income customers that are identified and selected by Low Income Builders throughout FPL's service territory. FPL, through Low Income Builders, will provide qualifying customers with solar water heating systems at no cost and reduced energy consumption.

B. Progress Energy Florida (<http://www.progress-energy.com/>)

Residential Programs

Home Energy Check. This program provides customers with an analysis of energy consumption and recommendations on energy efficiency improvements. The Home Energy Check is the foundation of the residential Home Energy Improvement program. Seven types of energy audits are available: free walk-through, paid walk-through, energy rating, mail-in audit, Internet option, phone-assisted audit, and a student audit.

Home Energy Improvement. This efficiency program provides existing residential customers incentives for energy efficient heating, air conditioning, insulation upgrades, duct leakage repair, reflective roofing products, high performance windows, window film, and solar screens.

Low-Income Weatherization Assistance Program. This program integrates PEF's DSM measures with the Department of Community Affairs and local weatherization providers to deliver energy efficiency measures to low-income families.

Energy Management (Residential and Commercial). This load management program incorporates direct radio control of selected customer equipment to reduce system demand during peak capacity periods and/or emergency conditions by temporarily interrupting selected consumer appliances for special periods of time. Customers have a choice of options and receive a credit on their monthly bill depending on the options selected and monthly kWh usage.

Neighborhood Energy Saver. This program assists low-income families with escalating energy costs by implementing a comprehensive package of electric conservation measures at no cost to eligible customers.

Renewable Energy Program. This program consists of two measures designed to encourage the installation of renewable energy systems: (1) Solar Water Heater with EnergyWise encourages residential customers to install a solar thermal water heating system; and, (2) Solar Photovoltaics

with EnergyWise promotes environmental stewardship and renewable energy education through the installation of solar energy systems at schools within PEF's service territory. Customers participating in the Winter-Only EnergyWise or Year-Round EnergyWise Program can elect to donate their monthly credit toward the Solar Photovoltaics with EnergyWise Fund.

Commercial/Industrial Programs

Business Energy Check. This free audit can be completed at the facility by an auditor or online by the business customer. A paid audit provides a more thorough energy analysis. Both audits identify, evaluate, and inform consumers on cost-effective energy saving measures for their facilities. The Business Energy Check is the foundation of the Better Business Program and a requirement for participation.

Better Business. This efficiency program provides incentives for heating, air conditioning, motors, water heaters, roof installation upgrade, direct leakage and repair, window film, cool roof, and lighting.

Commercial/Industrial New Construction. This efficiency program provides incentives for energy efficient heating, air conditioning, motors, water heating, window film, insulation, leak free ducts, cool roof, and lighting.

Innovation Incentive. This program encourages conservation efforts that are not supported by Progress Energy Florida Inc.'s other programs. Major equipment replacement or other actions that substantially reduce PEF peak demand requirements are evaluated and, if found to be cost-effective, may qualify for an economic incentive.

Standby Generation. This program provides an incentive for customers to voluntarily operate their on-site generation during times of system peak.

Interruptible Service Program. This program is a rate tariff which allows PEF to switch off electrical service to customers during times of capacity shortages. In return for this interruption, the customers receive a monthly rebate on their kW demand charge.

Curtable Service Program. This program is a dispatchable DSM program in which customers contract to curtail or shut down a portion of their load during times of capacity shortages in return for a monthly rebate.

Technology Development Program. This program allows PEF to undertake certain development and demonstration projects which have promise to become cost-effective conservation and energy efficiency programs.

Solar Pilot Programs

Solar Water Heating for Low Income Residential Customers. PEF will collaborate with non-profit builders to provide low-income families with a residential solar thermal water heater at no cost to the non-profit builders or the residential participants. The incentive is the total cost of the solar thermal system plus associated installation cost.

Solar Water Heating with Energy Management. The program encourages residential customers to install new solar thermal water heating systems on their residence. Customers are required to participate in the residential demand response program and receive the associated monthly bill credit in addition to a one-time \$550 rebate to reduce the upfront cost of purchasing the renewable energy system.

Residential Solar Photovoltaic. A program to reduce the initial investment required for a residential customer to install a new solar PV system on their home by providing a rebate of up to \$2.00/Watt up to a \$20,000 maximum. Customer is also required to participate in at least one existing residential energy efficiency measure.

Commercial Solar Photovoltaic. A program to reduce the initial investment required for a commercial customer to install a new solar PV system on their facility by providing a tiered rebate based on the PV power rating. Customer is also required to participate in at least one commercial energy efficiency measure.

Photovoltaic for Schools. Participating schools receive a new PV system at no cost to the school. Schools enter an agreement by which PEF will install the system and have the option to own and maintain the system for the first five years, at the end of which time the ownership and maintenance responsibilities will transfer to the customer. Program participation is limited to an annual target of one system with a rating up to 100 kW installed on a post secondary public school and ten systems of 10 kW each with battery backup option installed on other public schools, with a preference for schools serving as emergency shelters. The program has an educational component that will be funded in part by customers participating in other PEF energy management programs that elect to contribute their monthly credit toward an energy education fund.

Research and Demonstration. A program designed to research renewable energy technologies and establish research and development initiatives to support the development of future solar and renewable energy pilot programs. Program is limited to a targeted annual expenditure cap of \$323,380.

C. Gulf Power Company (<http://www.gulfpower.com/>)

Residential Programs

Residential Energy Audit and Education. The primary educational program to increase customer awareness of energy savings opportunities and help customers improve the energy efficiency of their new or existing home by encouraging the implementation of efficiency measures and behaviors resulting in energy and utility bill savings.

Community Energy Saver Program. Designed to assist low-income families, this program will implement a comprehensive package of electric conservation measures at no cost to the customer and educate families on energy efficiency techniques and behavioral changes to help control energy use and reduce costs.

Landlord/Renter Custom Incentive Program. This program designed to increase energy efficiency in the residential rental property sector by promoting the installation of various energy efficiency measures available through other programs including HVAC, insulation, windows, water heating, lighting, and appliances.

HVAC Efficiency Improvement Program. This program is designed to increase energy efficiency and improve HVAC cooling system performance through the use of incentives for services including HVAC maintenance, HVAC early retirement, HVAC upgrade, duct repair and ECM fan retrofits.

Heat Pump Water Heater Program. This program will to provide customers with an incentive to encourage the installation of high-efficiency Heat Pump Water Heating equipment

Ceiling Insulation Program. This program offers an incentive to encourage customers to install high efficiency insulation or increase insulation in existing single-family and multifamily homes.

High Performance Window Program. This program will provide residential customers with an incentive to install high-efficiency windows or window films in existing or new residential applications.

Reflective Roof. This program will provide Gulf's residential customers with an incentive to install ENERGY STAR qualified cool/reflective roofing products when constructing a new home or replacing the roof on an existing residence.

Variable Speed/Flow Pool Pump Program. This program will provide an incentive to encourage the installation of high-efficiency variable speed or variable flow pool pumping and control equipment in both new and existing residential applications.

EnergySelect. This program is an interactive energy management system that allows customers to program their central heating and cooling system, electric water heater and pool pump, if they have one, to automatically respond to varying prices of electricity depending upon the time of day, day of week and season.

EnergySelect LITE. This is a load management program for residential customers who do not meet the participation standards for EnergySelect. The program does not require land-line telephone service and will be available to multi-family customers. Customers can program their central heating and cooling system to automatically respond to varying prices of electricity depending upon the time of day, day of week and season.

Self-Install Energy Efficiency Program. This program promotes the purchase and installation of ENERGY STAR rated appliances, lighting, and other self-installed energy saving measures through the use of incentives, education, retail partnerships, promotional distribution of compact fluorescent light bulbs, energy audits, and seasonal promotional campaigns.

Refrigerator Recycling Program. This program is intended to eliminate inefficient or extraneous refrigerators in an environmentally safe manner and produce cost-effective long-term energy and peak demand savings. The program provides eligible customers with free refrigerator and freezer pick-up services in addition to a cash incentive.

Commercial Programs

Commercial/Industrial Audit. An interactive program that allows GULF energy specialists to introduce customers personally to conservation measures. A basic Energy Analysis Audit is provided through either an on-site surveyor an on-line analysis and a more comprehensive analysis can be provided by conducting a Technical Assistance Audit.

Commercial HVAC Retrocommissioning Program. This program diagnoses the performance of HVAC cooling unit(s) and offers basic retrocommissioning at a reduced cost for qualifying installations of existing commercial and industrial customers.

Commercial Building Efficiency Program. This program is designed as an umbrella efficiency program for existing customers to encourage the installation of eligible high-efficiency equipment, as a means of reducing energy and demand. Incentives will be paid for qualifying: HVAC equipment, heat-pump water heaters, insulation, window film, reflective roof, indoor lighting, and lighting occupancy sensors.

Occupancy Sensor HVAC Control. This program helps manage energy consumption and reduce energy waste in hotel rooms. The program provides hotel owners served by Gulf an opportunity to automatically control temperature settings in hotel rooms when the rooms are unoccupied.

High Efficiency Motor Program. This program encourages commercial and industrial customers to install premium-efficiency motors in new or existing facilities. Incentives are provided based upon the size of the qualifying motor.

Food Service Efficiency Program. This program encourages the installation of ENERGY STAR qualified or equivalent energy efficient commercial and industrial food service equipment to reduce energy consumption and demand as well as operating costs for the customer.

Commercial/Industrial Custom Incentive. This program is designed to offer advanced energy services and energy efficient end-use equipment, including comprehensive audits, design, and construction of energy conservation projects and demand reduction or efficiency improvement retrofits that are beyond the scope of other programs. Incentives consist of a combination of monetary and technical assistance that brings the project payback to no less than two years.

Real Time Pricing Program. A rate schedule that provides hourly prices on a day-ahead basis to encourage customers to reduce demand on the system during peak times when the marginal cost of generating or purchasing electricity is at its highest.

Conservation Demonstration and Development. Two measures are offered under this program, Electric Vehicle Charging and Miscellaneous Projects.

Electric Vehicle Charging is available to eligible residential customers that agree to remain on the Residential Service Variable Pricing (RSVP) rate as part of the Energy Select Program for one year. Participating customers will be eligible for a one-time incentive of \$1,000 for a highway capable vehicle or \$500 for a low-speed vehicle.

Miscellaneous Projects covers residential, commercial or industrial applications and cover a wide variety of technologies and activities which are subject to specific screening criteria prior to study implementation including the potential for energy and demand savings, technology maturity, and broad customer acceptability.

Solar Pilot Programs

Solar for Schools. This program provides capital funding to supplement deployment of PV systems up to 10 kW in qualifying public education facilities.

Solar Thermal Water Heating. This program provides eligible residential customers up to a \$1,000 incentive to install certified STWH systems. The STWH systems to be installed will offer customers an opportunity to reduce their hot water energy needs otherwise served by natural gas or electric resistance heating.

Solar PV. This program provides residential and commercial customers an incentive to encourage the installation of a solar energy system. The incentive value will be up to \$2/watt with a maximum incentive per customer of \$10,000. Qualifying systems will be designed to offset part or all of a customer's energy needs.

Solar Thermal Water Heating for Low-Income Housing. Under this program, Gulf will facilitate the installation of STWH systems in qualifying low-income housing. Gulf will pay the full installation cost of a solar thermal water heating system to the participating non-profit builder or agency.

D. Tampa Electric Company (<http://www.tampaelectric.com/>)

Residential Programs

Residential Walk-Through Audit (Free). This audit is conducted by a trained analyst and is offered to all residential customers. Participants may receive up to eight compact fluorescent lamps to replace incandescent bulbs with the similar lumens output.

On-Line Residential Energy Audit (Free). Customers answer questions about their home and energy usage and receive personalized audit results based on the answers to the questions and actual energy consumption. Participants may receive up to eight compact fluorescent lamps to replace incandescent bulbs with the similar lumens output.

Residential Computer-Assisted Energy Audit (\$15.00). The audit is performed by a trained analyst who collects specific data about the structure of the home and the customer's lifestyle. Participants may receive up to eight compact fluorescent lamps to replace incandescent bulbs with the similar lumens output.

Residential Phone Assisted Audit (Free). Customers speak directly with a Tampa Electric representative about their home and energy usage and receive personalized audit results and

recommendations based on the customer's answers to questions and their actual energy consumption. Participants may receive up to eight compact fluorescent lamps to replace incandescent bulbs with the similar lumens output.

Residential Heating and Cooling. A program that encourages the installation of high efficiency heating and cooling systems replacing either resistance heating (\$275) or a less efficient heat pump (\$400). The rebate is paid to the contractor performing the installation.

Residential Electronically Commutated Motor Program. This program helps customers improve the overall efficiency of their existing HVAC equipment by replacing the existing motor in the air-handler with an Electronically Commutated Motor (ECM). The rebate is \$135 per motor.

Residential HVAC Re-commissioning. A program designed to help residential customers ensure HVAC equipment is operating at optimal efficiency through maintenance and equipment tune-up. The rebate is \$75 per unit.

Residential Duct Repair. This program eliminates or reduces areas of HVAC air distribution losses by sealing and repairing the air distribution system (air handler, air ducts, return plenums, supply plenums and any connecting structure). A contractor appointed by Tampa Electric will seal and repair all accessible components of the air distribution system. Customer will pay no more than \$50 for typical repairs. Atypical repair costs will be negotiated between participating customer and contractor and governed by agreement between Tampa Electric and contractor.

Residential Building Envelope. This program provides incentives to encourage customers to make cost-effective improvements to existing residences' ceiling insulation, wall insulation, and windows.

New Construction-Residential (Energy Plus Homes). This 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. Qualifying equipment and measures include: duct system, ceiling insulation, HVAC upgrade, windows, alternative water heating and HER certification.

Neighborhood Weatherization and Agency Outreach. This program is designed to assist low-income families in reducing their energy usage by providing a package of conservation measures at no cost for the customer and educating families on energy conservation techniques. Customer eligibility is determined by using census data to identify eligible customer geographic regions or referral through local community assistance agencies. Measures available to qualified dwellings

include: duct sealing, ceiling insulation, compact fluorescent bulbs, water heater wrap, water heater temperature check and adjustment, low-flow showerhead, refrigerator coil cleaning and brush, and HVAC weather stripping kit.

Energy Education Outreach. Energy presentations will be made to schools, civic groups, churches, government sponsored public events, homeowner associations, trade shows and professional associations. As part of each presentation, residential customers will be provided with an Energy Efficiency Kit at no cost.

Energy Planner – Residential Price Responsive Load Management. 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.

Commercial/Industrial Programs

Commercial/Industrial Audit (Free). A program designed to reduce demand and energy consumption by increasing customer awareness of the energy use in their facilities. Recommendations are based upon the replacement of less efficient equipment and systems or modifications to operations to enhance the customer’s overall efficiency. Participants may receive up to eight fluorescent lamps to replace incandescent bulbs with similar lumens output.

Comprehensive Commercial/Industrial Audit (Paid). The paid audit may involve monitoring specific equipment within a customer’s facility to determine its electric usage with respect to the time of operation. Based on the results, Tampa Electric will recommend changes to save energy on equipment and/or operations. Participants may receive up to eight fluorescent lamps to replace incandescent bulbs with similar lumens output.

Commercial Duct Repair Program. This program eliminates or reduces areas of HVAC air distribution losses by sealing and repairing the air distribution system (air handler, air ducts, return plenums, supply plenums and any connecting structure). A contractor appointed by Tampa Electric will seal and repair all accessible components of the system. Tampa Electric’s incentive of \$300 per system is included in the payment to the participating contractor.

Commercial Building Envelope. Through incentives, the program will encourage commercial/industrial customers to invest in energy efficiency building envelope improvements including solar window film, ceiling insulation, and wall insulation. Certificates for participation

will be issued through energy audits or by direct evaluation of existing building envelope conditions.

Commercial Energy Efficient Motors. This program provides incentives to encourage customers to install new premium efficiency equipment or replace worn out and inefficient equipment with high efficiency equipment that exceeds minimum product manufacturing standards in new or existing facilities. The rebate is \$6 per horsepower.

Commercial Cooling Program. This program provides an incentive for the installation of high efficiency cooling systems in commercial buildings. The program encourages customers to replace worn out, inefficient cooling equipment with high efficiency equipment that exceeds minimum product manufacturing standards.

Commercial Chiller Program. This program provides incentives for the installation of high efficiency electric water-cooled chillers and electric air-cooled chillers in commercial buildings. The program encourages customers to replace worn out, inefficient cooling equipment with high efficiency equipment that exceeds minimum product manufacturing standards.

Commercial Lighting Program. This program provides a rebate of \$0.175 per watt to encourage customers to invest in more efficient lighting systems and includes standards for lighting retrofit projects in conditioned spaces, non-conditioned spaces, and exit signs.

Commercial Lighting Occupancy Sensor Program. This program provides a rebate of \$25 per unit to encourage customers to use occupancy sensors to efficiently control lighting systems.

Commercial Water Heating Program. This program provides a rebate to encourage commercial/industrial customers to install high efficiency water heating systems (heat recovery units and heat pump water heaters).

Conservation Value Program. This program is designed to recognize and encourage investments in demand shifting/reduction measures that are not being covered under other 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 periods. The rebate is \$275 per kW of demand reduction.

Commercial Load Management. This 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. Commercial air conditioning

equipment is cycled during summer control periods. Monthly incentive credits are applied to the monthly bill of participating customers based upon the type of interruption.

Commercial Demand Response. Participation is available to firm commercial/industrial customers located in TECO's service area that are not on any other Tampa Electric load control program. The incentive will be paid monthly by TECO's vendor facilitating the program and will be based on the monthly KW load reduction available at the customer's facility.

Commercial Standby Generator. This program is designed to utilize the emergency generation capacity of commercial/industrial facilities. Participating customers receive a thirty minute notice that their generation will be required, allowing them 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. The rebate is \$4.00 per month per kW for average transferable demand of a customer's load to a standby generator(s) during the company's prime use periods.

Commercial HVAC Re-commissioning. A program designed to ensure HVAC equipment is operating at optimal efficiency by incenting maintenance and tune-up of equipment. The rebate is \$25 per ton of air conditioning.

Electronically Commutated Motors (ECM). This program provides an incentive to encourage customers to install ECM in existing air conditioning and refrigeration equipment, and replace worn out, inefficient equipment with high efficiency equipment that exceeds minimum product manufacturing standards. Rebates range from \$125 to \$180 depending on the type of equipment.

Cool Roof. A program designed to encourage customers to install a cool roof system to reduce heat transfer through reflectance which, in turn, reduces HVAC load and improves comfort. The Cool Roof rebate is \$0.60 per square foot of area installed up to \$15,000 per premise.

Energy Recovery Ventilation. This program helps customers reduce humidity and HVAC loads in buildings. The rebate is based on the airflow capacity of the equipment.

Refrigeration Anti-Condensate Heat Control. This program provides an incentive to customers who install qualifying anti-condensate controls that reduce electric demand and energy in refrigeration equipment. The rebate is \$0.65 per linear foot of heat element.

Industrial Load Management (GSLM 2&3). This is a program for large industrial customers with interruptible loads of 500 kW or greater who sign a tariff agreement. The Contracted Credit

Value paid for this service shall be established every year and identified in the company's annual ECCR Projection Filing.

Conservation Research and Development (R&D). Technology measures eligible for consideration include 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, and water heating. Measures can be residential or commercial in nature and may be either new in the marketplace or existing measures which meet specific criteria identified in the program standards.

Renewable Energy Program. This program provides customers with the option to purchase 200 kWh blocks of renewable energy for \$5 per block to assist in the delivery of renewable energy to the company's grid 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 the annual ECCR True-up and Projection Filings.

Solar Pilot Programs

Renewable Energy Systems Initiative. This initiative is a five-year renewable energy pilot program that uses rebates and incentives to encourage the following measures:

Residential and Commercial PV. This component of the program will provide incentives for the installation of PV. Participants must agree to have the system interconnected to the grid. Incentives are \$2 per watt, with a maximum of \$20,000 per premises, lifetime.

Residential Solar Water Heating. This component of the program will provide incentives of \$1,000 per unit for the installation of solar water heating.

School PV. This component of the program will provide capital funding for the installation of PV on emergency shelter schools and will be coupled with an educational component for teachers and students to evaluate and understand the performance and benefits of PV. Tampa Electric will coordinate with the Florida Solar Energy Center to select qualifying schools. The company anticipates installing one 10 kW system per year and maintaining each system for a five-year period. These five systems will allow for at least one emergency shelter school in each county of the company's service area to have PV as a backup source of power during emergencies.

Low Income Solar Water Heating. This component of the program will provide for the installation of solar water heating systems on low income housing done in partnership with local non-profit building organizations. The system must be certified by the Florida Solar Energy Center.

E. Florida Public Utilities Company (<http://www.fpuc.com/>)

Residential Programs:

Residential Energy Survey: This free audit program is designed to provide customers with energy conservation advice and to encourage the implementation of efficiency measures. During the survey, up to ten compact fluorescent bulbs are installed by the FPUC auditor, the residence is checked for duct leakage, and the customer is provided with information regarding further analysis and repairs. Follow-up work monitors and tracks the installation of additional conservation features and/or duct repairs.

Residential Heating & Cooling Efficiency Upgrade: This program is designed to reduce the rate of growth in peak demand and energy consumption by increasing the saturation of high-efficiency heat pumps and central air-conditioning systems. After installation of new equipment with a minimum 14 Seasonal Energy Efficiency Rating, FPUC will provide a \$100 incentive to the customer, and a \$25 or \$75 incentive to the equipment dealer, depending on the type of system being replaced.

Commercial Programs:

Commercial Energy Survey. This free audit program is designed to help large customers identify advanced energy conservation opportunities. An FPUC Conservation Specialist conducts an on-site review of the facility operation, equipment, and energy usage pattern to identify areas of potential reduction in peak demand and energy consumption. During the survey, up to ten compact fluorescent bulbs may be installed.

Commercial Indoor Efficient Lighting Rebate. This program is designed to reduce peak demand and energy consumption by decreasing the load presented by commercial lighting equipment, and also by reducing the load on cooling equipment. This program features a two-tiered rebate system under which customers that improve the efficiency of their lighting systems may qualify for incentives of between \$0.10 and \$0.25 per watt.

Commercial Heating & Cooling Efficiency Upgrade. This program is designed to increase the installation of new high-efficiency heat pumps and central air-conditioning systems with a minimum 14 Seasonal Energy Efficiency Rating. FPUC will provide a \$100 incentive to the

customer, and a \$25 or \$75 incentive to the equipment dealer, depending on the type of system being replaced.

Commercial Window Film Installation. This program is designed to reduce peak demand and energy consumption by decreasing the load presented on commercial air-conditioning and heating equipment through the installation of solar window film. This program features an incentive of \$0.50 per square foot of covered area, up to a maximum of \$100.

Commercial Chiller Upgrade. This program reduces the rate of growth in peak demand and energy consumption by replacing existing chillers in commercial buildings with a more efficient system. Participating customers will qualify for a rebate of up to \$100 per kW of additional savings above the minimum efficiency levels.

Solar Pilot Programs

Solar Water Heating. This program is designed to encourage the installation of solar water heaters. Each participating customer is eligible for only one incentive payment of \$200 for the installation of a solar water heating system. The payment of incentives under this program is subject to the cap for renewable energy systems.

Solar PV. This program is designed to encourage the installation of solar photovoltaic systems. Each participating customer is eligible for only one incentive payment of \$2 per watt of direct current solar PV installed, up to a maximum of \$5,000. The payment of incentives under this program is subject to the cap for renewable energy systems.

F. Orlando Utilities Commission (<http://www.ouc.com/>)

Residential Programs:

Residential Energy Survey. OUC will provide three types of Residential Energy Surveys (walk-through, DVD, and on-line) designed to provide customers with energy conservation advice and to encourage the implementation of efficiency measures resulting in energy savings. The survey process includes a complete examination of the attic; heating, ventilation, and air conditioning system; air duct and air returns; window caulking; weather stripping around doors; faucets and toilets; and lawn sprinkler systems. Follow-up work monitors and tracks the installation of additional conservation features and/or duct repairs.

Duct Repair Rebate. This program is designed to encourage customers to repair leaking ducts on existing systems. Customers will receive up to a \$150 rebate for duct repairs on their homes.

Ceiling Insulation Rebates. This program is designed to encourage customers to upgrade their attic insulation. Customers will receive a \$100 rebate for upgrading their attic insulation to R-19 or higher.

Window Film/Solar Screen Rebates. This program is designed to encourage customers to install solar shading on their windows. Customers will receive up to a \$100 rebate for installation of qualifying solar shading film.

High Performance Windows Rebates. This program is designed to encourage customers to install windows that improve energy efficiency in their homes. Customers will receive a \$1 rebate per square foot (up to \$250) for the purchase of ENERGY STAR® rated energy efficient windows.

Caulking and Weather Stripping Rebates. This program is designed to encourage customers to caulk and weather-strip their homes. Customers will receive a rebate of 50 percent of the cost (up to \$50) for the caulking and weather stripping of their homes.

Wall Insulation Rebates. This program is designed to encourage customers to insulate the walls of their homes. Customers will receive a rebate of \$300 for wall insulation.

Cool/Reflective Roof Rebate. This program is designed to encourage customers to install new roofing to help insulate their homes. Customers will receive a rebate of \$150 for qualifying ENERGY STAR® cool/reflective roofing.

Home Energy Fix-Up Program. This program is available to residential customers with a total annual family income of \$35,000 or less who request and complete a free Residential Energy Survey. OUC will arrange for a licensed, approved contractor to perform the repairs based on the survey recommendations and will pay 85 percent of the total cost, not to exceed \$2,000. The remaining 15 percent can be paid directly or over an interest-free 12-month period on the participant's monthly electric bill.

Efficient Electric Heat Pump Rebates. This program provides rebates to qualifying customers in existing homes who install heat pumps having a seasonal energy efficiency ratio of 14.0 or higher. Customers who install a qualifying heat pump may obtain a rebate in the form of a credit on their bill of \$100, \$200, or \$300.

Commercial Programs

Indoor Lighting Retrofit Program. This program reduces energy consumption by replacing older fluorescent and incandescent lighting with newer, more efficient lighting technologies. A special

alliance between OUC and the lighting contractor enables OUC to offer the customer a discounted project cost.

Efficient Electric Heat Pump Rebates. Under this program OUC will rebate \$100 for SEER 14, \$200 for SEER 15, and \$300 for SEER 16 and above for customers' purchase of an energy-efficient heat pump.

Duct Repair Rebates. Under this program OUC will rebate up to \$150 on repairs made to leaking ducts on existing systems that are 5.5 tons (66,000 BTUs) or less.

Window Film/Solar Screen Rebates. This program is designed to help reflect the heat during hot summer days and retain heat on cool winter days. OUC will rebate customers \$0.75 per square foot, up to \$55 per room for qualifying window tinting and solar screening.

Ceiling Insulation Rebates. This program is designed to increase a building's resistance to heat loss and gain. OUC will rebate customers up to \$100 plus \$0.07 per square foot above 1,500 square feet for ceiling insulation of R-19 or higher.

Cool/Reflective Roofs Rebates. This program is designed to reflect the sun's rays and lower roof surface temperature while increasing the lifespan of the roof. OUC will rebate customers at \$0.10 per square foot up to \$15,000 for qualifying ENERGY STAR® cool/reflective roofing.

G. JEA (<http://www.jea.com/>)

Residential Programs

Residential Energy Audit. A home energy survey available to all residential customers at no charge. A JEA representative inspects the home and offers cost-effective ideas designed to help lower energy costs.

Residential Energy Efficient Products. In partnership with retail stores and manufacturers of ENERGY STAR compact fluorescent light bulbs and certain ENERGY STAR appliances, JEA offers in-store coupons and markdown prices for over 30 varieties of ENERGY STAR CFLs, energy efficient light fixtures, room air conditioning units, refrigerators, dish washers, and clothes washers for JEA customers. The program is conducted by an implementation contractor.

Green Built Homes of Florida. An incentive-based program offered by JEA and the Northeast Florida Builders Association which promotes the use of green building practices in new single family homes. There is a maximum rebate of \$1,500 per home.

Residential Solar Water Heating. This program pays a financial incentive to customers to encourage the use of solar water heating technology. There is an \$800 incentive per installed solar water heating system.

Residential Solar Net Metering. This program promotes the use of solar photovoltaic systems by purchasing excess power from residential customers implementing these systems. The policy is intended to facilitate generation from renewable energy sources up to 100 kW to offset part or all of the customer's energy requirements.

Neighborhood Efficiency Program. In partnership with the City of Jacksonville, JEA offers a three-phase program for low income customers:

- Phase 1 provides installation of 10-12 electric and water conservation products, an energy education package of printed information material and consultation with an energy auditor for those customers already participating in the City of Jacksonville's Rehab program for low to moderate income eligible households.
- Phase 2 provides installation of 15 electric and water conservation products, an energy education package of printed material and consultation with an energy auditor in targeted neighborhoods identified by the City based on Federal Poverty Guidelines and identified by JEA as having high winter peak consumption.
- Phase 3 provides an Energy Efficient Home Maintenance kit of 12 electric and water conservation products for participants in a Housing Counseling workshop required for first time home buyers involved in the City's loan assistance programs for low to moderate income residents.

Commercial Programs

Commercial Energy Audit Program. This service is offered at no charge to all commercial customers. A JEA representative will perform a rate evaluation, discuss demand strategies, inspect the customer's business and offer cost-effective ideas designed to help lower energy costs.

Commercial Energy Efficient Products. In partnership with local vendors and manufacturers of energy efficient lighting products and appliances, JEA offers coupons and markdown prices for over 30 varieties of efficient products for its customers.

District Chilled Water Program. This program utilizes a centralized chiller plant circulating cold water via an underground network to meet the air conditioning needs of multiple buildings.

Participating buildings achieve savings by eliminating redundant installations of on-site chillers and associated operating costs.

Commercial Solar Net Metering. JEA will allow customer-owned renewable generation up to 100 kW under this Net Metering Policy to facilitate generation from renewable energy sources to offset part or all of the customer's energy requirements. Participating customers will be charged for the metered kWh received from JEA during each month and credited for the metered kWh sent to JEA each month. The credit to the customer will be calculated using the customer's retail energy rate, demand, fuel, environmental and conservation charges per kWh.