

Florida Public Service Commission

Annual Report on  
**Activities**  
**Pursuant**  
**to the**  
**Florida**  
**Energy**  
**Efficiency and**  
**Conservation**  
**Act**

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

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## TABLE OF CONTENTS

<b>List of Acronyms</b> .....	<b>iii</b>
<b>Executive Summary</b> .....	<b>2</b>
Conclusion .....	4
<b>Section 1. The Florida Energy Efficiency and Conservation Act</b> .....	<b>6</b>
1.1 History of FEECA.....	6
1.2 Conservation Tools and DSM Savings .....	7
1.3 Conservation Cost Recovery.....	9
<b>Section 2. Demand-Side Management Goals</b> .....	<b>12</b>
2.1 Cost-Effectiveness .....	12
2.2 Commission-Established Goals .....	14
2.3 DSM Plans and Programs .....	14
2.4 Assessing Goal Achievement .....	18
<b>Section 3. Overview of Florida’s Electricity Market</b> .....	<b>24</b>
3.1 Energy Demand in Florida.....	24
3.2 Florida’s Electric Generating Resources .....	25
<b>Section 4. Educating Florida’s Consumers on Conservation</b> .....	<b>28</b>
4.1 Related Web Sites .....	31
<b>Appendix 1. Conservation Activities of FEECA Utilities</b> .....	<b>34</b>
A. Florida Power & Light Company.....	34
B. Progress Energy Florida, Inc.....	36
C. Gulf Power Company.....	38
D. Tampa Electric Company (TECO) .....	39
E. Florida Public Utilities Company .....	42
F. Orlando Utilities Commission .....	44
G. JEA.....	46



## **List of Acronyms**

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 became a statutory objective 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 the seven electric utilities subject to FEECA. The goals are expressed as annual electric peak demand and energy savings over a ten-year period. The seven utilities currently subject to FEECA are 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, the utilities must submit for Commission approval, cost-effective demand-side management (DSM) plans, which contain the DSM programs designed to meet these goals.

This report fulfills two Commission statutory obligations. The Commission is required by Section 366.82(10), F.S., to provide an annual report to the Legislature and the Governor summarizing the adopted goals and progress achieved toward those goals. Section 377.703(2)(f), F.S., requires the Commission to file information on electricity and natural gas energy programs with the Department of Agriculture and Consumer Services.

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

### **Conservation Achievements**

As of 2012, the FEECA utilities' DSM programs in total have reduced winter peak demand by an estimated 7,095 MW and summer peak demand by an estimated 7,164 MW. These programs have also reduced total energy consumption by an estimated 8,518 GWh, which lowers fuel consumption at electric generators. The demand savings from these programs have resulted in the deferral or avoidance of a substantial fleet of baseload, intermediate and peak power plants.

Since 1981, Florida's investor-owned electric utilities have recovered over \$5.7 billion of conservation expenditures for DSM programs through the Energy Conservation Cost Recovery (ECCR) clause. Over \$2.9 billion of the total conservation program expenditures recovered have occurred in the last ten years. In 2011, Florida's investor-owned electric utilities recovered over \$379 million in conservation program expenditures, performed more than 238,000 residential audits, and offered over 100 conservation programs for residential and commercial customers.

Consumer choice plays an important role in reducing the growth rates of electrical demand and energy in Florida. Consumers may support electric energy conservation through a variety of actions including constructing smaller, more efficient homes, buying energy-efficient appliances, installing energy-efficiency upgrades to existing homes and increasing the use of the most cost-effective demand-side renewable systems. The Commission's consumer education program offers several tools to promote consumer awareness of daily conservation and energy efficiency opportunities.

There are other effective means of ensuring energy efficiency, including building codes and appliance efficiency standards. Per Legislative directives, increases in the Florida building code requirements have resulted in improved energy performance in new buildings. Appliance efficiency standards have also become more stringent. In 2012, the U.S. Department of Energy (DOE) implemented new energy efficiency standards for residential clothes washers and dishwashers. The clothes washer standards are scheduled to become effective in 2015 and are expected to save households approximately \$350 throughout the life of the appliance. Set to become effective in 2013, the dishwasher standards are expected to result in the appliance using about 15 percent less energy. The 2011 enhanced efficiency standards implemented by the DOE provided for greater efficiencies in home refrigerators and freezers and were projected to result in more than \$200 in electric bill savings to typical consumers throughout the life span of the appliance. Air conditioning equipment, usually a consumer's most energy intensive device, was required to become 30 percent more efficient due to new DOE standards in 2010. The same year, the DOE issued a final rule amending the energy conservation standards for residential water heaters, slated to become effective in 2015. These federal and state building codes and appliance efficiency standards create a baseline for cost-effectiveness of any new utility-sponsored DSM program.

Section 2 of this report compares the FEECA utilities' demand and energy savings to the goals set by the Commission. Pursuant to Section 366.82(8), F.S., the Commission may financially reward or penalize a company based on the results of its DSM programs. In 2010, the Commission approved DSM plans for OUC, JEA, FPUC, and TECO. Gulf's DSM plan was approved in February 2011. The Commission voted to modify the proposed DSM plans of FPL and PEF on June 26, 2011. The modification included the notation that the approved plans for FPL and PEF would consist of the existing programs in effect on the date of the Orders. Although there was a modification to the DSM plans of FPL and PEF, the utilities would remain subject to financial awards and/or penalties. Specifically, if their achievements surpassed their established goals the utilities could be eligible for a financial award. Conversely, if their achievements fell below the savings projected under their modified DSM plans, the utilities could be financially penalized. Such actions could be decided in a limited proceeding as established by the Commission in Order No. PSC-09-0855-FOF-EG.

An assessment of the 2011 annual goals compared to each utility's annual achievements during 2011 reveals that only TECO and JEA met or exceeded their demand and energy savings goals in every category. FPL, PEF, Gulf, FPUC and OUC all surpassed annual goals in some categories for at least one customer sector during 2011. The primary reasons given by the utilities for not meeting their goals included lower than expected consumer participation due to weak economic conditions, delays in implementing new programs due to litigation, and the need for increased marketing efforts.



Because 2010 was the implementation year since the goal setting hearing, the 2010 annual and 2010 cumulative targeted savings were the same. As a result, in last year's report, staff used a hybrid benchmark of goals to get a more accurate perspective regarding the FEECA utilities' achievement of goals. Approval of all FEECA utilities' DSM plans was not complete until 2011. As such, consistent with the analysis from the previous year, staff performed a hybrid benchmark analysis of the goals set for years 2006-2009 plus the annual 2010 and 2011 goals. Analyzing 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. Statewide, the FEECA utilities' total achievements have surpassed goals over the past six years.

## **Conclusion**

The potential demand and energy savings from utility sponsored conservation programs are affected by consumer education and behavior, building codes, and appliance efficiency standards. Consumer actions to implement energy efficiency measures outside of utility programs as well as codes and efficiency standards, create a baseline for a new program's cost-effectiveness and reduce the amount of incremental energy available to count towards savings. Utility programs are designed to incent behavior that exceeds current building codes and minimum efficiency standards. It should be noted that the savings from these programs are somewhat uncertain because they depend on voluntary participation from customers. However, the expense is shared by all customers. As such, 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 for which the most recent demand and energy goals were set. However, the new DSM Plans designed by the utilities to meet those goals did not receive approval until late 2010 or early 2011. Moreover, investor-owned utilities are not allowed to implement new programs until program standards are filed and have received approval by the Commission – which were not complete until early to mid 2011. During the 2011 period, TECO and JEA met or exceeded their annual goals. FPL, PEF, Gulf, FPUC, and JEA did not meet all goals for all customer classes. Section 366.82(8), F.S., gives the Commission the authority to financially reward or penalize a company based on whether it meets its goals. As 2010 was the first year the Commission measured savings under new goals and many utilities did not have all programs in place until 2011, it appears to be premature to consider rewards and penalties.

Conservation and renewable energy are expected to continue to play an important role in meeting the electric resource needs of Florida's population. The Commission will continue its efforts to encourage conservation and renewable energy to reduce the use of fossil fuels and defer the need for new generating capacity. The Commission will diligently review proposals for conservation programs and renewable purchased power contracts to ensure that these actions are in the best interest of Florida's ratepayers.



## Section 1. The Florida Energy Efficiency and Conservation Act

### 1.1 History of FEECA

Since it became law in 1980, the Florida Energy Efficiency and Conservation Act (FEECA) has placed a continued emphasis on reducing the growth rates of weather-sensitive peak demand, reducing the growth rates of electricity consumption and reducing the consumption of limited resources such as petroleum fuels. To accomplish these objectives, FEECA requires the Commission to establish goals and the electric utilities to implement demand-side management (DSM) programs to meet those goals.

Upon FEECA's inception, all Florida electric utilities were subject to its provisions. However, the 1989 legislative sunset review of the FEECA statute resulted in two changes. The first revision imposed a size limitation requiring only electric utilities with more than 500 gigawatt-hours (GWh) of annual retail sales to be subject to FEECA. At the time, 94 percent of all retail electricity sales in Florida were attributable to the 12 utilities which surpassed the sales threshold. The second change was the addition of language to encourage cogeneration.

The Legislature again raised the minimum retail sales threshold in 1996 – for municipal and cooperative utilities only – to 2,000 GWh. In accordance with the new law, retail sales for these utilities were measured as of July 1, 1993, to ascertain whether the company would need to comply. Both OUC and JEA met the minimum retail sales threshold and so are subject to FEECA. All five Florida investor-owned utilities (IOU) remain subject to FEECA, regardless of sales. No rural electric cooperatives are subject to FEECA. At present, FEECA utilities account for over 90 percent of all Florida energy sales. Table 1 illustrates the 2011 energy sales by each FEECA utility, as well as non-FEECA utilities. The table also includes the percentage of Florida's total energy sales for each FEECA utility along with a total percentage allocation for the non-FEECA utilities.

**Table 1. Energy Sales by Florida's FEECA Utilities in 2011**

<b>Florida's FEECA Utilities</b>	<b>Energy Sales GWh</b>	<b>% of Total Energy Sales</b>
Florida Power & Light Company	103,327	48.1
Progress Energy Florida	37,597	17.9
Tampa Electric Company	18,564	8.8
Gulf Power Company	11,407	5.2
Florida Public Utilities Company	697	0.3
JEA	11,787	5.9
Orlando Utilities Commission	6,050	2.8
<b>FEECA Utilities' Total</b>	<b>189,429</b>	<b>90.4</b>
Non-FEECA Utilities' Total	20,117	9.6
<b>Statewide Total</b>	<b>209,546</b>	<b>100.0</b>

In March 2012, the Florida Legislature passed House Bill 7117, which included provisions on energy efficiency and conservation. The Legislature required the Commission, in consultation with the Florida Department of Agriculture and Consumer Services (DACS), to contract for an independent evaluation of FEECA to determine if the Act remains in the public interest. Academic institutions were identified as being best positioned to meet the requirement that an independent evaluation be conducted. A scope of work was distributed to 19 potential academic contractors from around the country with expertise in energy, the electric utility industry, and energy efficiency and conservation. A team of researchers from the University of Florida and the National Regulatory Research Institute was ultimately selected to conduct the study. The study was distributed to the Governor and the Legislature on January 7, 2013. The Legislature also required the Commission to serve as consultants to the DACS Office of Energy along with the Florida Building Commission, and the Florida Energy System Consortium to develop information regarding cost savings associated with various energy efficiency and conservation measures. This information is to be posted on the DACS website to facilitate consumers' energy efficiency decisions.

## **1.2 Conservation Tools and DSM Savings**

Utility-sponsored DSM programs are unquestionably important; however, consumer choice and mandatory efficiency standards also are key factors in reducing state electrical demand and energy growth rates. Consumers may support electric energy conservation through a variety of actions including constructing smaller, more efficient homes, buying energy-efficient appliances, installing energy-efficiency upgrades to existing homes and increasing the use of the most cost-effective demand-side renewable systems. As power plant sites and transmission corridors become scarcer in Florida, all approaches to defer future generating units and transmission lines become increasingly important.

The potential demand and energy savings from utility sponsored conservation programs are affected by consumer education and behavior, building codes, and appliance efficiency standards. Consumer actions to implement energy efficiency measures outside of utility programs as well as codes and efficiency standards, create a baseline for a new program's cost-effectiveness and reduce the amount of incremental energy available to count towards savings. Utility programs are designed to incent behavior that exceeds current building codes and minimum efficiency standards. In 2012, the U.S. Department of Energy (DOE) implemented new energy efficiency standards for residential clothes washers and dishwashers, with the clothes washer standards slated to become effective in 2015, and expected to save households approximately \$350 throughout the life of the appliance. Set to become effective in 2013, the dishwasher standards are expected to result in the appliance using about 15 percent less energy, providing economic savings for consumers that use them.

The 2011 enhanced efficiency standards implemented by the DOE provided for greater efficiencies in home refrigerators and freezers and were projected to result in more than \$200 in electric bill savings to typical consumers throughout the appliance's life span. Air conditioning equipment, usually a consumer's most energy intensive device, was required to become 30 percent more efficient due to new DOE standards in 2010. The same year, the DOE issued a final rule amending the energy conservation standards for residential water heaters, slated to

become effective in 2015 and to impact residential electric water heaters that have a 55-gallon or more storage capacity.

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 percent compared to the 2007 Energy Efficiency Code. State and Federal minimum efficiency standards for residential appliances and commercial equipment, along with building construction standards, complement 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, an increase in federal standards, independent conservation efforts by consumers, and general conservation practices may increase utilities' challenges in achieving 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 2011, Florida's investor-owned utilities performed more than 238,000 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.

Table 2 illustrates that since FEECA’s enactment in 1980, DSM programs are projected to reduce winter peak demand by an estimated 7,095 MW and reduced annual energy consumption by an estimated 8,518 GWh. The demand savings from these programs have resulted in the deferral or avoidance of a substantial fleet of baseload, intermediate and peak power plants.

**Table 2. Estimated Cumulative DSM Savings Since 1980**

	<b>Savings</b>
Summer Peak Demand	7,164 MW
Winter Peak Demand	7,095 MW
Energy Reduction	8,518 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 (ECCR) 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 \$5.7 billion of conservation expenditures through the ECCR clause, with over \$2.9 billion of conservation program expenditures recovered 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 remained fairly stable from 2003 to 2007. This stability was 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 2011 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 add or modify programs in order to meet the new goals established in 2009.

**Table 3. DSM Expenditures Recovered Through the ECCR Clause**

	<b>FPL</b>	<b>PEF</b>	<b>TECO</b>	<b>Gulf</b>	<b>FPUC</b>	<b>Total</b>
<b>2002</b>	\$162,062,655	\$63,150,036	\$16,970,240	\$5,436,083	\$418,498	\$248,037,512
<b>2003</b>	\$150,026,657	\$62,156,585	\$17,518,874	\$7,313,033	\$381,563	\$237,396,712
<b>2004</b>	\$145,679,192	\$60,072,362	\$16,357,137	\$7,619,637	\$382,504	\$230,110,832
<b>2005</b>	\$144,192,696	\$59,143,076	\$15,583,727	\$8,826,754	\$473,610	\$228,219,863
<b>2006</b>	\$146,205,249	\$59,543,107	\$14,099,638	\$9,562,098	\$456,162	\$229,866,254
<b>2007</b>	\$146,204,978	\$67,109,815	\$13,652,585	\$9,107,952	\$515,022	\$236,589,592
<b>2008</b>	\$180,016,994	\$77,593,960	\$16,989,411	\$9,257,740	\$534,350	\$284,392,455
<b>2009</b>	\$186,051,381	\$80,954,071	\$32,243,415	\$10,576,197	\$540,433	\$310,365,497
<b>2010</b>	\$216,568,331	\$85,354,923	\$43,371,442	\$9,859,407	\$693,331	\$355,847,434
<b>2011</b>	\$228,293,641	\$91,738,039	\$43,349,092	\$15,003,596	\$941,462	\$379,325,830
<b>Total</b>						\$2,985,586,071

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 2012.<sup>1</sup> These factors took effect with the first billing cycle of 2013.

<sup>1</sup> See Order No. PSC-12-0611-FOF-EG, issued November 15, 2012, in Docket No. 120002-EG, In re: Energy Conservation Cost Recovery Clause.

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 2013**

<b>Utility</b>	<b>Residential ECCR Factor (cents/kWh)</b>	<b>Monthly Bill Impact (based on 1,200 kWh)</b>
FPL	0.233	\$2.80
PEF	0.306	\$3.67
TECO	0.298	\$3.58
Gulf	0.226	\$2.71
FPUC	0.116	\$1.39

Natural gas local distribution companies also offer conservation programs to their customers though the Commission does not set goals for these companies. The most common 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. The Commission most recently set conservation cost recovery factors in November 2012.<sup>2</sup> These factors took effect with the first billing cycle of 2013. 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 2013**

<b>Utility</b>	<b>ECCR Factor (cents/therm)</b>	<b>Monthly Bill Impact (based on 20 therms)</b>
Chesapeake Utilities	12.617	\$2.52
Florida City Gas	14.728	\$2.95
Florida Public Utilities	7.926	\$1.59
Peoples Gas System	5.973	\$1.19
St. Joe Natural Gas	24.830	\$4.97
Indiantown Gas Company	0.212	\$0.04
Sebring Gas System	11.642	\$2.33

<sup>2</sup> See Order No. PSC-12-0612-FOF-GU; issued November 15, 2012; in Docket No. 120004-GU; In re: Natural Gas Conservation Cost Recovery.



## Section 2. Demand-Side Management Goals

### 2.1 Cost-Effectiveness

Demand-side management programs can provide value for the general body of electric utility ratepayers. Such value comes from the programs' ability to offset the need for future power plant construction and thereby postpone capital expenditures, reduce current energy production costs, including fuel and variable operating and maintenance-related costs, and improve reliability.

Utility-sponsored conservation programs are required to be cost-effective pursuant to Section 366.82, F.S. The Commission adopted Rule 25-17.008, F.A.C., which codifies the cost-effectiveness methodologies and cost and benefit information due to the Florida Public Service Commission from utilities whenever an assessment of an existing, new or modified conservation program's cost-effectiveness is requested. To obtain cost recovery, utilities are required to 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. The tests are 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.

Table 6 below further illustrates the previously mentioned summaries regarding the three Commission-approved cost-effectiveness methodologies:

**Table 6. Summary of Cost-Effectiveness Methodologies**

	<b>Participants</b>	<b>RIM</b>	<b>TRC</b>
<b><i>Benefits</i></b>			
Bill Reduction	<b>X</b>		
Incentives Received	<b>X</b>		
Avoided Generation (Capital and O&M)		<b>X</b>	<b>X</b>
Avoided Transmission (Capital and O&M)		<b>X</b>	<b>X</b>
Fuel savings		<b>X</b>	<b>X</b>
<b><i>Costs</i></b>			
Program Costs		<b>X</b>	<b>X</b>
System Fuel Cost Increase		<b>X</b>	<b>X</b>
Incentives Paid		<b>X</b>	
Lost Revenues		<b>X</b>	
Participant's Costs (Capital and O&M)	<b>X</b>		<b>X</b>

The Commission also requires IOUs to reassess programs regularly. If a program is no longer cost-effective, the utility is required to petition the Commission to modify or discontinue the program. Conversely, if new programs become available which are cost-effective, the utility may petition the Commission requesting approval of the new program.

Legislation enacted in 2008 amended the FEECA statute, placing upon the Commission additional responsibilities when adopting goals. These responsibilities include the 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. The Commission also is responsible for assessing the cost-effectiveness of all demand-side and supply-side energy conservation measures, including demand-side renewable energy systems. The Commission's most recent goal-setting proceeding, initiated in 2008, was the first implementation of these modifications. Additionally, the statute was amended to allow the Commission to provide appropriate financial rewards and/or penalties to the utilities over which it has rate-setting authority. Finally, the 2008 legislation authorized the Commission to allow an IOU 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. To date, the Commission has not awarded financial awards or assessed penalties for the IOUs subject to FEECA.

## 2.2 Commission-Established Goals

By Order No. PSC-09-0855-FOF-EG,<sup>3</sup> 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 period from 2010 through 2019. The Commission determined that the annual numeric DSM goals for the IOUs (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 E-TRC is essentially the TRC test with the addition of projected future carbon costs. The Commission also found that the annual numeric goals for OUC and JEA were to be based on the utilities 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 updated information provided through discovery responses from the utilities.<sup>4</sup> Table 7 provides the summer demand, winter demand, and annual reduction energy goals ultimately approved by the Commission for each of the FEECA utilities.

**Table 7. Commission-Approved DSM Goals (2010-2019)**

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

## 2.3 DSM Plans and Programs

After setting the aforementioned goals, the Commission directed the utilities to file DSM plans designed to meet their goals as required by Section 366.82(7), F.S. On March 30, 2010, each FEECA utility filed a petition requesting approval of its DSM plan for the ten-year period 2010 through 2019. OUC, JEA, FPUC, and TECO's proposed plans were approved by the

<sup>3</sup> See 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.

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

Commission in 2010.<sup>5</sup> Gulf's proposed plan was approved in February 2011.<sup>6</sup> 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 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.<sup>7</sup> These orders also clarified how the Commission would view FPL's and PEF's future performance 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 established goals. Conversely, neither FPL nor PEF shall be subject to any financial penalty barring failure to achieve savings projected in their approved DSM plans. On September 6, 2011, the Southern Alliance for Clean Energy (SACE) protested the Commission's August 16, 2011 orders regarding FPL and PEF.<sup>8</sup> The Commission accepted briefs from parties on the issues, heard oral arguments from them on December 6, 2011, and denied SACE's protest. On January 17, 2012, SACE filed a Notice of Administrative Appeal of the Commission's decision with the Florida Supreme Court,<sup>9</sup> the Notice was denied by the Florida Supreme Court on September 24, 2012.

As noted above, after the Commission establishes goals, utilities must file plans designed to meet these goals for Commission approval. The utilities' plans did not receive final approval until late 2010 or 2011. IOUs also are required to submit program standards for the Commission to approve before implementation begins. Program standards provide detailed descriptions of each DSM program including how the program is administered. Program standards received final approval in 2011. As such, throughout 2010, the FEECA utilities, with the exception of JEA and OUC, continued operating programs designed to meet goals set in 2004. Though this delay does not excuse utilities from meeting new goals, it does warrant further evaluation methods since IOUs could be subject to penalties for failing to meet annual goals, pursuant to Section 366.82(8), F.S.

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<sup>5</sup> See 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.

<sup>6</sup> See Order No. PSC-11-0114-PAA-EG, in Docket No. 100159-EG, issued February 11, 2011.

<sup>7</sup> 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.

<sup>8</sup> 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.

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

Table 8 below illustrates the final approval dates of each utility’s DSM plan and program standards.

**Table 8. Timeline of Plan and Program Standard Approval**

<b>Utility</b>	<b>DSM Plan</b>	<b>Program Standards</b>
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	Sep 2010	N/A

***Solar Programs***

Pursuant to Section 366.82(2), F.S., the FEECA utilities are encouraged to further develop demand-side renewable energy resources. In order to address these changes to FEECA, the Commission directed the IOUs to spend 10 percent of their historic energy conservation cost recovery expenditures as an annual cap for solar water heating and solar photovoltaic (PV) pilot programs.<sup>10</sup> Therefore, as part of their proposed DSM plans, each of the investor-owned utilities also proposed solar programs. The Commission approved solar programs of all IOUs except FPL in 2010, and approved FPL’s solar programs 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).

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<sup>10</sup> See Order No. PSC-09-855-FOF-EG, in Docket Nos. 080407-EG, 080408-EG, 080409-EG, 080410-EG, 080411-EG, 080412-EG, and 080413-EG, In re: Conservation review of numeric conservation goals.

Table 9 represents the Commission approval of utilities' annual expenditures for solar technologies.

**Table 9. Commission-Approved Annual Expenditures for Solar Technologies**

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

In 2011, the investor-owned FEECA utilities provided rebates for over 1,600 solar PV and water heating facilities in the residential, commercial, and school sectors combined. Many of the programs offering rebates for installing residential solar PV systems were fully subscribed within hours after approval, indicating high customer demand for subsidies for this type of solar technology. Also, the subscription rate implies that even at a reduced incentive level, financial incentives offered to customers who install solar PV systems could still be effective. Solar pilot programs utilizing annual funding also include solar thermal (water heating), energy education and PV panels for schools. The table below further highlights the number of PV and solar water heating installations that received funding by the five IOU utilities in the residential and commercial sectors.

**Table 10. Solar Pilot Program Installations in 2011**

<b>Installations</b>	<b>FPL</b>	<b>PEF</b>	<b>TECO</b>	<b>Gulf</b>	<b>FPUC</b>	<b>Total</b>
Residential Solar Water Heating	523	230	46	35	3	837
Commercial Solar Water Heating	9	N/A	N/A	N/A	N/A	9
Residential Photovoltaic	271	88	49	41	10	459
Commercial Photovoltaic	31	16	8	1	N/A	56
<b>Total Solar Pilot Installations</b>	<b>834</b>	<b>334</b>	<b>103</b>	<b>77</b>	<b>13</b>	<b>1,361</b>

## **2.4 Assessing Goal Achievement**

Goal achievement is assessed within this report in several ways. The Commission set separate goals for residential and commercial/industrial (C/I) customers. Hence, goal achievement is measured within the context of these two primary 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. Cumulative goals and achievements also are assessed over several years, which allows for variations in customer participation.

Rule 25-17.0021, Florida Administrative Code, requires each FEECA utility to file annual reports that summarize the utility's actual energy savings for its approved demand-side management plan. The data collected from these reports, as well as additional data staff receives from the utilities in response to data requests, are used in assessing the success of these goal achievements.

Through monitoring of annual achievements, the Commission is able to better understand which utility programs are working and which may need additional modification. Staff submitted data requests pertaining to the FEECA utilities' ability to meet their performance levels. In addition, staff's requests asked that the utilities provide explanations regarding what factors prevented them from meeting their participation levels, as well as information regarding which programs in the residential and commercial/industrial sectors contributed to meeting or not meeting their projected participation levels.

Table 11 illustrates 2011 annual residential, C/I and total goal and savings figures. Additionally, as outlined in Section 2.3, most utilities had not implemented new programs in 2010. As a result, staff performed an analysis which illustrates cumulative savings achievements over the past six years. The analysis reveals cumulative goals using 2005-2009 annual goals (set in 2004) added to the new 2010 goals. Table 12 on page 22 shows the figures covering years 2006-2011.

**Table 11. DSM Goals Compared to Annual (2011) Achievements**

Utility	Winter (MW)		Summer (MW)		Annual (GWh)	
	Goals	Reduction	Goals	Reduction	Goals	Reduction
<b>FPL</b>						
Residential	42.4	46.2	79.7	109.5	145.8	196.1
Commercial/Industrial	9.9	18.0	62.5	<b>36.8</b>	149.4	<b>64.9</b>
Total	52.3	64.2	142.2	146.3	295.2	<b>261.0</b>
<b>PEF</b>						
Residential	87.0	<b>75.0</b>	82.0	<b>39.0</b>	268.0	<b>52.0</b>
Commercial/Industrial	5.0	29.0	16.0	29.0	33.0	67.0
Total	92.0	104.0	98.0	<b>68.0</b>	301.0	<b>119.0</b>
<b>TECO</b>						
Residential	8.5	10.2	6.6	8.6	14.0	19.2
Commercial/Industrial	1.1	11.8	3.6	15.3	10.6	33.0
Total	9.6	22.0	10.2	23.9	24.6	52.2
<b>Gulf</b>						
Residential	6.5	7.0	8.3	<b>7.1</b>	37.6	<b>27.9</b>
Commercial/Industrial	0.6	2.8	1.6	5.0	5.6	10.4
Total	7.1	9.8	9.9	12.1	43.2	<b>38.3</b>
<b>FPUC</b>						
Residential	0.1	0.5	0.2	0.8	0.5	1.7
Commercial/Industrial	0.1	0.1	0.2	<b>0.1</b>	0.8	<b>0.4</b>
Total	0.2	0.6	0.4	0.9	1.3	2.1
<b>JEA</b>						
Residential	2.1	5.9	2.4	4.8	10.8	33.7
Commercial/Industrial	0.8	3.8	1.3	2.8	20.3	33.5
Total	2.9	9.7	3.7	7.6	31.1	67.2
<b>OUC</b>						
Residential	0.2	0.8	0.5	1.0	1.8	2.7
Commercial/Industrial	0.7	<b>0.6</b>	0.7	<b>0.6</b>	1.8	3.0
Total	0.9	1.4	1.2	1.6	3.6	5.7

Table 11 compares each utility's DSM goals and savings during 2011. The bold numbers illustrate that the utility was unable to achieve its goals in a particular category. Based on the new 2010 goals and the reported savings achieved in the residential and C/I sectors, only TECO and JEA met or surpassed demand and energy savings goals in every category. FPL, PEF, Gulf,



FPUC, and OUC did not meet annual goals in every category during 2011. A more detailed description of each utility's performance is below.

When measured on a system-wide basis, FPL was able to surpass its winter and summer demand goals. However, FPL was unable to meet its annual energy goals due to lower than expected participation in their C/I programs, where the company fell short of its C/I goals in the summer demand and energy category by 25.7 MW and 84.5 GWh, respectively. In its response to staff's data request regarding why the company was unable to reach its performance levels, FPL stated it was ". . . unable to achieve its summer demand and energy goals in the business sector because of current economic factors, which caused some businesses to withdraw plans for large energy efficiency capital projects or to delay such projects to 2012." The business sector programs that did not meet FPL's participation levels included: Business Heating, Ventilating and Air Conditioning, Business Building envelope, Business Water Heating, Business Refrigeration, and Business On Call. As previously noted, the Commission did not approve a new DSM plan for FPL. Rather, the Commission voted to allow the company to continue its existing 2004 DSM plan, which was modified in 2006, as it would lead to ongoing energy savings without an undue impact on customer rates. 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 program as the company continues to evaluate program effectiveness.

When measured on a system-wide basis, PEF was able to surpass its winter demand goals. However, PEF was unable to meet its summer demand and annual energy goals. PEF surpassed its C/I goals in all categories during 2011, but failed to meet residential goals in the winter demand, summer demand and energy category by 12 MW, 43 MW and 216 GWh, respectively. In its response to staff's data request regarding why the company was unable to reach its performance levels, PEF stated that "The inability to meet targeted goals is not caused by lower participation;" rather, the company states it is a result of the Commission decision to not approve a new DSM plan for PEF. Consequently, the company's existing programs have not changed. PEF may petition the Commission for permission to add, remove, or modify any of the programs as the company continually evaluates program effectiveness.

When measured on a system-wide basis, TECO was able to surpass its winter demand, summer demand, and annual energy goals. In total, TECO's performance in the winter demand category exceeded combined goals by 12.4 MW, summer demand combined goals by 13.7 MW, and annual energy combined goals by 27.6 GWh.

When measured on a system-wide basis, Gulf was able to surpass its winter and summer demand goals. However, Gulf was unable to meet its total annual energy goals by 4.9 GWh. Gulf failed to reach its residential summer goals by 1.2 MW, but exceeded its C/I summer goals by 3.4 MW. Gulf's explanation for not reaching all of its goals included lack of customer participation and poor economic conditions.

When measured on a system-wide basis, FPUC was able to meet its winter demand, summer demand and annual energy goals. FPUC failed to meet its C/I goals by 0.1 MW in the summer demand and failed to meet its C/I annual energy goals by 0.4 MW. FPUC attributes the lack of participation in some of its commercial programs as factors regarding why the company was unable to meet its C/I goals. In its response to staff's data request regarding what actions the company will take to meet its future performance levels, FPUC replied that it will . . . " make

adjustments to its marketing and other efforts to achieve greater levels of participation in programs where goals were not achieved.” The C/I sector programs in which FPUC did not achieve its targeted goals were as follows: Commercial Indoor Efficient Lighting Rebate Program, Commercial Heating and Cooling Upgrade Program, and Commercial Window Film Program.

On a system-wide basis, JEA exceeded its winter demand, summer demand and annual energy goals. JEA exceeded its goals in every category for both residential and C/I customers, as shown in Table 11.

OUC met all of its system-wide goals. OUC did not meet both its C/I winter and summer demand goals by 0.1 MW. OUC states that the decline was driven primarily by reduced participation in its commercial lighting programs likely resulting from uncertain economic conditions in the commercial marketplace.

The FEECA utilities’ cumulative demand and energy savings also are quantified and compared with the cumulative Commission-established goals over the past six years, encompassing both the 2004 and 2010 established annual goals. Historically, the Commission examined cumulative achievement starting when goals are revised. But because 2010 was the first year since the revision of the goals, the 2010 annual and 2010 cumulative savings were the same and inconclusive. As a result, in last year’s report, staff used a hybrid benchmark of goals to get a more accurate perspective regarding goal achievement of the FEECA utilities. Approval of all FEECA utilities’ DSM plans was not complete until 2011.

Table 12 continues last year’s hybrid benchmark of the goals set for years 2006-2009 plus the annual 2010 and 2011 goals. Analyzing 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. Statewide, the FEECA utilities’ total achievements have surpassed goals over the past six years, as shown below.

**Table 12. Cumulative Goals vs. Savings Over Six Years (2006-2011)**

	Winter Peak MW		Summer Peak MW		Energy GWh	
	Goals	Savings	Goals	Savings	Goals	Savings
FPL	338.5	543.9	657.0	994.3	1,040.9	1,445.3
PEF	338.1	578.9	240.1	393.3	650.2	<b>506.2</b>
TECO	51.4	128.0	50.2	133.7	103.5	214.5
Gulf	75.7	<b>41.7</b>	88.9	<b>60.8</b>	110.5	<b>81.8</b>
FPUC	1.5	3.2	2.0	2.5	5.5	6.2
JEA	4.3	22.4	5.5	18.4	46.6	174.3
OUC	1.8	3.1	2.4	4.3	7.2	14.5
<b>Total</b>	<b>811.3</b>	<b>1,321.2</b>	<b>1,046.1</b>	<b>1,607.3</b>	<b>1,964.4</b>	<b>2,442.8</b>

Collectively, the FEECA utilities have been largely successful in meeting demand and energy goals over the past six years on a cumulative basis as shown in the total figures of Table 12. Gulf did not successfully meet its goals based on this hybrid approach. Gulf’s programs designed to meet the new goals were not approved until February 2011 and, as discussed in previous FEECA reports, Gulf contends that customer participation in the programs the company relied upon was reduced due to the economic downturn. The hybrid approach also illustrates that PEF met its demand goals, but did not meet its annual energy goals. PEF explained that the inability to meet targeted goals is not caused by lower participation; rather, the company states it is a result of the Commission decision to not approve a new DSM plan for PEF.

These varied outcomes reflect a transition in DSM efforts as the FEECA utilities must modify 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. In 2010, the Commission began the initial process of measuring energy savings under the new goals. In that period, no investor-owned utility had new programs in place during 2010. As mentioned previously, most of the FEECA utilities’ new programs were not approved until 2011. Because of these reasons, it remains 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 high cooling demand 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, is key to grasping conservation’s importance in Florida. It is primarily due to high air-conditioning loads during the hot summer months and electricity use for home heating during the winter months. As shown in Table 13, residential customers comprise nearly 89 percent of Florida’s electricity customers and purchase 53 percent of the state’s electrical energy. Florida’s rate of commercial electrical usage comprises about 37 percent and industrial customers purchase the remaining 10 percent.

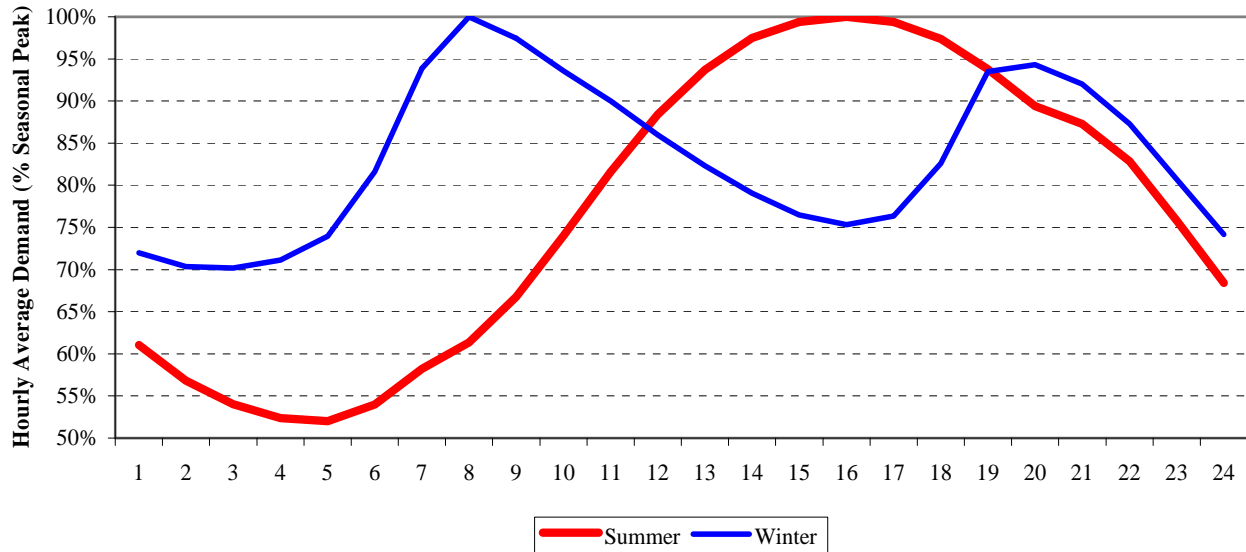
**Table 13. Florida’s Electric Customers by Class and Consumption in 2011**

Customer Class	Number of Customers	% of Customers	Energy Sales (gigawatt-hours)	% of Sales
Residential	8,369,607	88.7	113,554	53.0
Commercial	1,037,584	11.0	80,284	37.4
Industrial	27,202	0.3	20,556	9.6
<b>Total</b>	<b>9,434,393</b>	<b>100.0</b>	<b>214,394</b>	<b>100.0</b>

Florida’s high temperatures and humidity levels cause residential customers’ electrical usage to fluctuate throughout the day. Residential energy use peaks in 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 greater trough to peak in the demand for energy consumed in Florida than in other states that typically have more industrial customers.

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 2011, Florida’s summer peak demand exceeded its winter peak demand. Florida’s 2011 summer peak demand was 47,666 MW compared to its winter peak demand, which was 42,447 MW. Infrequent, but intense cold fronts will create winter electrical demands that exceed summer peaks.

### 3.2 Florida’s Electric Generating Resources

Electric utilities’ resource-planning process is designed to guarantee adequate installed capacity exists to meet projected customer demand and provide a contingency reserve. At the point in the planning process that the timing of capacity additions is known, the appropriate technology and fuel type to provide the energy is determined. Generating plants typically are categorized as base load, peaking, or intermediate. Aside from planned outages, base load units operate continuously. Peaking units supplement this power, operating less frequently during high-demand periods. Intermediate units generate power to follow load for periods longer than do peaking units, but not as continuously as base load units. Conservation programs sponsored by utilities help to reduce peak demand and energy consumption, offsetting 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

Together, these utilities currently possess 52,193 MW of summer electric generating capacity and 55,871 MW of winter generating capacity. Non-utility generators in the state provide an additional 4,780 MW of summer electric generating capacity and 5,134 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 strived for fuel diversity by maintaining a balanced fuel supply with a relative mix of energy generation from coal, nuclear, natural gas, oil, and other sources. Today's picture is very different. Natural gas usage continues to increase and it has been the preferred fuel for new generation capacity in the last ten years. In 2012, natural gas provided 62.4 percent of energy generation. That number is projected to fall to approximately 56.7 percent in 2021. The projected natural gas consumption decline by 2021 could be the result of planned increases in nuclear generation and relatively stable net energy for load from coal generation. It is noteworthy that nuclear generation usage projections may decline primarily due to the start-up delay of proposed units and maintenance problems with other nuclear units.

In an attempt to reduce natural gas consumption, Florida's utilities encouraged other energy resources including renewable energy and nuclear generation. Approximately 1,421 MW of renewable generation is currently operating in Florida. Presently, municipal solid waste (MSW) and biomass each represent about a third of Florida's renewable generation. Other major types of renewable generation operating in Florida include waste heat, hydroelectric, landfill gas and solar.

Florida does not have any new nuclear generation scheduled until 2022, when FPL's Turkey Point Unit 6 is to come on-line followed by Turkey Point Unit 7 in 2023. Progress' Levy Units 1 and 2 are scheduled to come on-line in 2024 and 2025, respectively. The four new nuclear facilities will add over 4,000 MW of additional nuclear capacity in Florida when placed into service. The utilities' uprates of the five existing nuclear units began May 2012. These uprates are expected to result in an additional 600 MW of baseload capacity.

Natural gas is still expected to provide more than 56.7 percent of Florida's energy in 2021 despite the attention to fuel diversity and approval of new nuclear units mentioned above. Utilities must continue to direct attention to DSM, conservation, renewable energy and public education efforts to ensure Florida can continue to meet the growing need for energy and afford the associated costs.





## Section 4. Educating Florida’s Consumers on Conservation

The Commission’s consumer education program uses the FPSC website, e-mail, public events, brochure distribution, and press releases to share conservation information with consumers. Conservation information is also available to consumers through other governmental and utility Web sites. Section 4.1 lists related websites belonging to state and federal agencies, investor-owned electric utilities, and local gas distribution companies to further assist consumers.

### Electronic Outreach

An assortment of information is available on the FPSC website to help consumers save energy. According to data from Google Analytics, during the 2012 calendar year, more than 300,000 people accessed the FPSC Web site consumer pages. One of the more popular website destinations is the FPSC’s Energy Conservation House. 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 is located at:

<http://www.floridapsc.com/consumers/house/>.

The Commission also features several energy conservation brochures online and in-print that help consumers save energy. Brochures may be viewed and printed directly from the website, <http://www.floridapsc.com/publications/>, ordered free via an online order system, or requested by mail or phone. From January to September 2012, 59,478 brochures were requested to be sent by mail.

With its interactive design, the FPSC’s quarterly *Consumer Connection E-Newsletter* features current energy and water conservation topics, consumer tips, and general Commission information. In text and on YouTube video, consumer tips highlighted in 2012 include *Prepare Your A/C for Summer*, *Portable Generator Safety*, and *8-1-1: Call Before You Dig*. The *Consumer Connection E-Newsletter* is “tweeted” by the FPSC and sent to interested consumers, who can subscribe to the newsletter at:

<http://www.floridapsc.com/consumers/newsletter/newsletterspublic.aspx>.

Assisting consumers with conservation information since 2005, all FPSC consumer newsletters and consumer tips are available on the Commission’s website at:

<http://www.floridapsc.com/consumers/newsletter/index.aspx>

<http://www.floridapsc.com/consumers/tips/>.

### National Consumer Protection Week (March 4-10, 2012)

National Consumer Protection Week (NCPW), highlighting consumer protection and education efforts around the country, was important to the FPSC’s 2012 conservation education efforts. For the 14<sup>th</sup> Annual NCPW, Chairman Ronald A. Brisé hosted a *Super Tuesday Consumer Forum*. Representatives from participating Cabinet offices and other state and social service agencies joined Chairman Brisé and Commission staff to provide consumer agencies throughout Florida with helpful information for Florida residents.

Chairman Brisé's goal for the Forum was to share some effective ways for Floridians to make wise spending choices, avoid scams, and conserve water and energy to help lower their utility bills. More than 15 consumer groups and state agencies attended the event, where they shared consumer needs and discussed ways to raise consumer awareness. Also during NCPW, FPSC staff made presentations to seniors in Fort Walton Beach, Jacksonville, and Tampa, showing them how to save money on their water and energy bills.

### **Older Americans Month**

This year, the FPSC participated in Older Americans Month, a national project celebrated each May to honor and recognize older Americans for the contributions they make to their families, communities, and society. *Never Too Old to Play* was the theme, and the FPSC held educational sessions with Florida senior centers in Tampa, Orlando, Jacksonville, Palm Beach Gardens, and Miami, showing seniors ways to save energy and water. An FPSC article outlining the importance of Older Americans Month, the Commission's outreach activities, and conservation efforts was featured in the July/August edition of the Florida Department of Elder Affairs' *Elder Update*.

### **Energy Awareness Month**

Educating consumers about the FPSC's net metering rule that advances customer-owned renewable generation was highlighted during Energy Awareness Month, sponsored annually by the U.S. Department of Energy in October. Commissioner Lisa Polak Edgar visited a customer in Orlando who saved more than \$400 in three months with his solar photovoltaic net metering system. Media interviews with the utility customer and the Commissioner showed consumers how the FPSC's rule helps a customer-owned renewable system interconnect with the utility's grid to save money and conserve energy.

To help consumers who might need assistance paying their utility bills, the FPSC's *A Guide to Utility Assistance in Florida* includes contact information for all electric utilities in the state. The booklet gives consumers a way to call their utility to tap into the large network of social service organizations located throughout their areas. Many of Florida's electric utilities also have company programs designed to provide emergency assistance funds to customers unable to pay their electric bill, so consumers in need can benefit by contacting their utilities.

### **Community Events**

The FPSC continuously seeks existing and new community events, venues, and opportunities where conservation materials can be distributed and discussed with citizens. This year, the FPSC participated in consumer programs and distributed energy and water conservation materials through partnerships with governmental entities, consumer groups, and many other service organizations.

Examples of events where conservation information was shared during 2012 include:

- Earth Day at the Capitol
- Community Days in Hillsborough County and the cities of Hialeah, Melbourne, Sweetwater, Miami Gardens, Lake Park, Palatka, and Brooksville
- Florida Departments of Elder Affairs' and Health's Falls Prevention Awareness Day
- Ambassadors for Aging Day; Active Living Expo; Senior Days in Jacksonville, Tampa, Orlando, and Tallahassee
- Lane Wiley Senior Center; Leroy Clemons Senior Center; Maxville Senior Center; Orange Park Senior Center; Wiegel Senior Center; Mid-County Senior Center
- Elder Care Services; Seniors in Service of Tampa Bay, Inc.; Elder Affairs SHINE Program of Putnam County; Senior Solutions of Southwest Florida; Senior Friendship Centers, Inc.; Alliance for Aging, Inc.
- Orange County Consumer Fraud Unit
- Community Legal Services of Mid-Florida, Inc.
- Brevard Health Alliance in Melbourne; Palm Beach County Health Department
- Discipline of Christ Family Day;
- Miami-Dade County Department of Human Services
- Tampa Housing Authority

### **Hearings and Customer Meetings**

As an ongoing outreach initiative, the Commission supplies conservation brochures to consumers at FPSC hearings and customer meetings across the state. From January to September 2012, Commission staff distributed information and addressed consumer questions at 21 FPSC public meetings. 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 statewide Library Outreach Program is an effective consumer education program. Each year the FPSC provides educational brochures to Florida public libraries for distribution to consumers. The Commission recently increased its program participants by sending educational brochures to more than 330 public libraries across the state, specifically including publications that feature practical energy and water conservation tips.

In 2012, over 17,200 brochures were sent to, or requested by, Florida's libraries. Past 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.

## Media Outreach

News releases are distributed to the media on major Commission decisions, meetings, and public events. The Office of Consumer Assistance & Outreach also issues news releases urging conservation. For instance, in March a release touted the federal government's *Fix a Leak Week*, where several water and energy conservation strategies were shared. In April, a release to promote conservation on Earth Day and every day was shared with consumers, agencies, local organizations, and businesses. In May, the Commission published a release on the growing number of Floridians and businesses using renewables to generate their own electricity and a release for Older Americans Month outlining the importance of seniors learning to conserve resources and save money. In November, an FPSC article featuring holiday conservation tips was published in the Department of Edler Affairs' *Elder Update*.

## Youth Education

The Commission emphasizes conservation education for Florida's young consumers. In 2012, the FPSC participated in the Earth Day celebration at the Florida Capitol, and staff provided students and their teachers with energy and water conservation tips to use on campus and at home.

During 2012, the FPSC 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 Commission outreach events. 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 FPSC to be performed by teen drama groups or young school children for their classmates, thereby increasing the students' interest in learning about conservation. The FPSC helped produce both plays in recent years, and the Commission continues to work with school programs 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.

### 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.floridajobs.org/job-seekers-community-services/community-services/weatherization-assistance-program>

Florida’s Local Weatherization Agencies List – <http://www.floridajobs.org/job-seekers-community-services/community-services/weatherization-assistance-program/contact-your-local-weatherization-office-for-help>

*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/](http://www.eere.energy.gov/consumer/your_home/)

*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/>



## **Appendix 1. Conservation Activities of FEECA Utilities**

### **A. Florida Power & Light Company**

#### **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 (HVAC) 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.

## **B. Progress Energy Florida, Inc.**

### **Residential Programs**

*Home Energy Check.* This program provides Progress Energy Florida Inc.'s (PEF) residential customers with an analysis of energy consumption and recommendations on energy efficiency improvements. Acting as a motivational tool to identify, evaluate, and inform consumers on cost effective energy saving measures, the Home Energy Check is the foundation of the residential Home Energy Improvement program and is a program requirement for participation. Seven types of energy audits are available: the free walk-through, the paid walk-through (\$15 charge), the energy rating (Energy Gauge), the mail-in audit, an Internet option, a 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's goal is to integrate PEF's DSM program measures with the Department of Community Affairs (DCA) and local weatherization providers to deliver energy efficiency measures to low-income families. Through this partnership, Progress Energy assists local weatherization agencies by providing energy education materials and financial incentives to weatherize the homes of 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 electric bills depending on the options selected and their 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. In addition to installing these measures, PEF seeks to achieve three important goals: educate participating families on proper energy efficiency techniques and best practices, change their energy-use behavior, and manage their energy usage.

*Renewable Energy Program.* This program consists of two areas that are designed to encourage the installation of renewable energy systems:

(1) Solar Water Heater with EnergyWise. This measure encourages residential customers to install a solar thermal water heating system. The customer must have whole house electric cooling, electric water heating and electric heating to be eligible for this program.

(2) Solar Photovoltaics with EnergyWise. This measure 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.

All proceeds collected from participating customers and their associated monthly credits, are used to promote photovoltaics and renewable energy educational opportunities.

### **Commercial/Industrial Programs**

*Business Energy Check.* This free audit for non-residential customers can be completed at the facility by an auditor or online by the business customer. A paid audit provides a more thorough energy analysis for non-residential facilities. The program acts as a motivational tool to 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 to existing commercial and industrial customers 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 the design and construction of energy efficient commercial and industrial facilities, including energy efficient heating, air conditioning, motors, water heating, window film, insulation, leak free ducts, cool roof, and lighting.

*Innovation Incentive.* The program encourages conservation efforts that are not supported by Progress Energy's other programs. Major equipment replacement or other actions that substantially reduce PEF peak demand requirements are evaluated to determine their impact on Progress Energy's system. If cost-effective, these actions may qualify for an economic incentive in order to shorten the payback time of the project.

*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. The signal to operate the automatic switch is operated by the Energy Control Center. 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. The

curtailment is done voluntarily by the customer when notified by PEF. In return for this cooperation, the customer receives a monthly rebate for the curtailable portion of their load.

*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.

## **C. Gulf Power Company**

### **Residential Programs**

*GoodCents Select Program.* This program provides the customer with a means of conveniently and automatically controlling and monitoring his/her energy purchases in response to prices that vary during the day and by season in relation to Gulf's cost of producing or purchasing energy.

*Residential Geothermal Heat Pump Program.* The program's purpose is to reduce the demand and energy requirements of new and existing residential customers through the promotion and installation of geothermal systems.

*Residential Energy Survey Program.* This program offers energy conservation advice to individuals and contractors building new homes. In addition the program advises existing residential customers to implement efficiency measures resulting in energy savings. Owners of existing homes may choose to have a Gulf Power representative conduct an on-site survey of their home, or they may opt to participate in either a mail-in or online interactive version of the survey, the Energy Check Up. Qualifying new home owners and contractors may request a survey of their final construction plans. Regardless of the option chosen, these surveys provide customers with specific whole-house energy recommendations.

### **Commercial Programs**

*GoodCents Commercial Buildings Program.* This program educates commercial and industrial customers on the most cost-effective methods of designing new and improving existing buildings. The program stresses efficient heating and cooling equipment, improved thermal envelope, operation and maintenance, lighting, cooking, and water heating. Field representatives work with architects, engineers, consultants, contractors, equipment suppliers, building owners, and occupants to encourage them to make the most efficient use of all energy sources and available technologies.

*Commercial Geothermal Heat Pump Program.* The program's objective is to reduce the demand and energy requirements of new and existing commercial/industrial customers through the promotion and installation of advanced and emerging geothermal systems.

*Commercial/Industrial Energy Analysis.* This program provides advice to Gulf Power's existing commercial and industrial customers on how to reduce and make the most efficient use of energy. The program includes semi-annual and annual follow-ups with the customer to verify conservation measures installed and to reinforce the need to continue with more conservation efforts. Customers may participate by requesting a basic Energy Analysis Audit through either

an on-site survey or a direct mail survey. A more comprehensive analysis can be provided through a Technical Assistance Audit.

*Energy Services Program.* This program establishes the capability and process to offer advanced energy services and energy efficient end-use equipment customized to meet the individual needs of large customers. Potential projects are evaluated on a case-by-case basis and must be cost-effective to qualify for incentives or rebates. Types of projects covered under this program include demand reduction or efficiency improvement retrofits, such as lighting (fluorescent and incandescent), motor replacements, HVAC retrofit (including geothermal applications), and new electro-technologies.

## **Research and Development Programs**

*Conservation Demonstration and Development.* This package of conservation programs explores and pursues research, development, and demonstration projects to promote energy efficiency and conservation. The program serves as an umbrella program for the identification, development, demonstration, and evaluation of new or emerging end-use technologies.

*Renewable Energy.* This program encompasses a variety of voluntary renewable and green energy programs under development by Gulf Power. The voluntary pricing options for customers include, but are not limited to, EarthCents Solar (Photovoltaic Rate Rider) and the Solar for Schools program. In addition, the renewable energy program includes expenses necessary to prepare and implement a green energy pilot program using landfill gas, wind, solar, or other renewable energy sources.

## **D. Tampa Electric Company (TECO)**

### **Residential Programs**

*Residential Energy Audits.* On-site audits of premises, online audits, and telephone surveys instruct customers how to use conservation measures and practices to reduce their energy usage.

*Duct Repair.* This program reduces weather-sensitive peaks by offering incentives to encourage the repair of the air distribution system in a residence.

*Heating and Cooling Program.* This program reduces weather-sensitive peaks of residential customers by providing incentives for the installation of high efficiency heating and air conditioning equipment at existing residences.

*Residential Building Envelope Improvement.* This program reduces demand and saves energy by decreasing the load on residential air conditioning and heating (HVAC) equipment. Eligible customers can receive incentives to add ceiling installation, exterior walls, window replacements and window film.

*Prime Time Program.* This load management program directly controls the larger loads in residential customers' homes such as air conditioning, water heating, electric space heating, and pool pumps. Participating customers receive monthly credits on their electric bills. The program is currently closed to new participants.

*Renewable Energy Initiative.* This program assists in the delivery of renewable energy for TECO's Renewable Energy Program by providing funding for program administration, evaluation, and market research.

*Price Responsive Load Management.* This program reduces weather sensitive peak loads by offering a multi-tiered rate structure as an incentive for participating customers to reduce their electric demand during high cost or critical periods of generation.

*Residential Low-Income Weatherization.* This program saves demand and energy by decreasing the energy consumption at a residence. The program is aimed at low-income customers and provides, at no cost to qualified customers, the following: eight compact fluorescent lamps, one water heater wrap, three low-flow faucet aerators, two showerheads, a window (HVAC) weather-stripping kit, wall plate thermometers, HVAC filters, weather-stripping, caulking, and ceiling insulation (up to R-19).

*Educational Energy Awareness – Pilot.* This program saves demand and energy by increasing customer awareness of available conservation measures and practices that can reduce the individual's energy use. TECO partners with schools within its service area at the eighth grade level to teach students the benefits of energy efficiency.

*Energy Plus Homes.* This program encourages the new home construction to be above the minimum energy efficiency levels required by the State of Florida Energy Efficiency Code for New Construction through the installation of high efficiency equipment and building envelope options.

## **Commercial Programs**

*Cogeneration.* This program encourages the development of cost-effective commercial and industrial cogeneration facilities through the evaluation and administration of standard offers and the negotiation of contracts for the purchase of firm capacity and energy.

*Commercial Cooling.* The purpose of this program is to encourage the installation of high efficiency direct expansion (DX) commercial air conditioning equipment.

*Commercial Lighting.* This program reduces weather-sensitive peaks by encouraging investment in more efficient lighting technology in commercial facilities.

*Commercial Load Management.* This load management program's purpose is to achieve weather-sensitive demand reductions through load control of equipment at the facilities of firm commercial customers.

*Standby Generator.* This program uses the emergency generation capacity at firm commercial and industrial facilities to reduce weather-sensitive peak demand.

*Conservation Value.* This incentive program for firm commercial and industrial customers encourages additional investments in substantial demand shifting or demand reduction measures.

*Industrial Load Management.* This program is for large industrial customers with interruptible loads of 500 kW or greater.

*Commercial Duct Repair.* This program reduces weather-sensitive peaks by offering incentives to encourage the repair of the air distribution system in a facility.

*Commercial Building Envelope Improvement.* This program saves demand and energy by decreasing the load on air conditioning and heating (HVAC) equipment. Eligible customers can receive incentives to add ceiling insulation, exterior wall insulation, and window film.

*Commercial Efficient Motors.* This program encourages commercial/industrial customers to install premium-efficiency motors in new or existing facilities through incentives. The program aims to reduce the growth of peak demand and energy by encouraging customers to replace worn out, inefficient equipment with high efficiency equipment that exceeds minimum product manufacturing standards.

## **Research and Development**

A five-year Research and Development program is directed at end-use technologies (both residential and commercial) not yet commercially available, where insufficient data exists for measure evaluations specific to Central Florida climate.

## **E. Florida Public Utilities Company**

### **Residential Programs**

*Geothermal Heat Pump Program.* This program reduces the demand and energy requirements of new and existing residential customers through the promotion and installation of advanced and emerging geothermal systems.

*Residential Heating and Cooling Efficiency Upgrade.* The purpose of this program is to reduce the rate of growth in peak demand and energy throughout the company's service territories by increasing the number of high-efficiency heat pumps.

*GoodCents Home/Energy Star Program.* This program provides guidance concerning energy efficiency in new construction by promoting energy efficient home construction techniques and by evaluating the energy efficient components of design and construction.

*GoodCents Energy Survey Program.* The program promotes the installation of cost-effective conservation measures by giving the customer specific whole-house recommendations regarding energy efficiency. The survey process also checks for possible duct leakage.

*Residential Ceiling Insulation Upgrade Program.* This program reduces peak demand and energy consumption by decreasing the load presented by the residential air-conditioning and heating equipment. Customers are required to add at least R-11 of ceiling insulation to qualify for a \$100 incentive in the form of an Insulation Certificate that may be applied to the total cost of installing the added ceiling insulation.

## **Commercial Programs**

*GoodCents Commercial Building Program.* This program addresses the most common critical areas in commercial buildings affecting summer peak kW demand: thermal efficiency of the building and HVAC equipment efficiency. In addition, the program is designed to ensure that buildings are constructed with energy efficiency levels above the Florida Model Energy code standards.

*GoodCents Commercial Technical Assistance Audit.* This program is an interactive program that assists commercial customers in identifying advanced energy conservation opportunities. Customers receive an on-site review of the facility operation, equipment, and energy usage pattern by a Florida Public Utilities Company Conservation Specialist. In addition, a technical evaluation is performed to determine the economic payback or life cycle cost for various improvements to the facility.

*Commercial Indoor Efficient Lighting Rebate Program.* This program reduces peak demand and energy consumption by decreasing the load presented by commercial lighting equipment. The program requires that commercial customers achieve at least 1,000 watts of lighting reduction from any lighting source that has been retrofitted with a more efficient fluorescent lighting system (ballasts and lamps). By doing so, customers qualify for an incentive of \$0.10 per watt reduced.

## **Educational and Research Programs**

*Low Income.* This program provides low-income customers with basic energy education and informs the customers of specific services offered by the utility.

*Affordable Housing Builders and Providers.* This program encourages affordable housing builders to attend educational seminars and workshops related to energy efficient construction, retrofit programs, financing programs, and the GoodCents Home program. The company works with the Florida Energy Extension Service and other seminar sponsors to offer a minimum of two seminars and/or workshops per year.

*Conservation Demonstration and Development (CDD).* The program pursues research, development, and demonstration projects that are designed to promote energy efficiency and conservation.



## **F. Orlando Utilities Commission**

### **Residential Programs**

*Residential Energy Survey Program.* This program provides residential customers with recommended energy efficiency measures and practices. The program consists of three measures: the Residential Energy Walk-Through Survey, the Residential Energy Survey Video and DVD, and an interactive Online Home Energy Audit.

*Duct Repair Rebate Program.* The purpose of this program is 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 Rebate Program.* This program is offered to residential customers to encourage them 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 Rebate Program.* 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 solar shading film with a shading coefficient of 0.5 or less.

*High Performance Windows Rebate Program.* This program is designed to help minimize heating, cooling, and lighting costs. The high performance windows rebate program is designed to encourage customers to install windows that will 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 Rebate Program.* 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 Rebate Program.* 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 Program.* This program is designed to encourage customers to install new roofing to help insulate their homes. Customers will receive a rebate of \$150 for ENERGY STAR® cool/reflective roofing that has an initial solar reflectance greater than or equal to 0.70.

*Home Energy Fix-Up Program.* This program is available to customers with a total annual family income of \$35,000 or less. Each customer must request and complete a free Residential Energy Survey. OUC will arrange for a licensed, approved contractor to perform the necessary repairs 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 Rebate Program.* This program provides rebates to qualifying customers in existing homes who install heat pumps having a seasonal energy efficiency ratio (SEER) of 14.0 or higher.

## **Commercial Programs**

*Commercial Energy Survey Program.* The purpose of this program is to focus on increasing energy efficiency and energy conservation in commercial buildings. A free survey comprised of a physical walk-through inspection of the commercial facility performed by experienced energy experts is included.

*Commercial Indoor Lighting Retrofit Program.* The program reduces energy consumption for the commercial customer through the replacement of older fluorescent and incandescent lighting with newer, more efficient lighting technologies.

*Commercial OUConsumption Online Program.* This program enables businesses to check their energy use and demand from a desktop computer, allowing business owners to manage their energy load. Participants must cover a one-time program set-up fee of \$45, a \$45 monthly fee per meter for the service, and the cost of additional infrastructure (ranging between \$0 and \$500) at the meters, which may be required.

*Commercial OUConvenient Lighting Program.* This program provides complete outdoor lighting services for commercial applications, including industrial parks, sports complexes, and residential developments. Each lighting package is customized for each participant, allowing the participant to choose among light fixtures. Upfront financial costs and maintenance are controlled by Orlando Utilities. The participant then pays a low monthly fee for each fixture. Orlando Utilities also retrofits existing fixtures to new light sources or higher output units. New agreements have allowed this program to expand into neighboring communities like Clermont, Oviedo, and Brevard County.

*Commercial Power Quality Analysis Program.* This program gives Orlando Utilities the ability to ensure the highest possible power quality to commercial customers. The program's goals include making the maximum effort to solve power quality problems through monitoring and interpretive analysis, identifying solutions that will lead to corrective action, and providing ongoing follow-up services to monitor results.

*Commercial Infrared Inspections Program.* The purpose of this program is to help customers uncover potential reliability and power quality problems. The infrared inspection detects thermal energy and measures the temperature of wires, breakers, and other electrical equipment components. The information is transferred into actual images and those images reveal potential problem areas and hot spots that are invisible to the naked eye.

*OUCooling.* Funded originally in 1997, this program allows Orlando Utilities to fund, install and maintain a central chiller plant for each business district participating under the program. Benefits to the businesses are lower energy consumption, increased reliability, no environmental risks associated with the handling of chemicals, avoided initial capital cost, lower maintenance costs, a smaller mechanical room, no insurance requirements, improved property resale value, and availability of maintenance personnel for other duties.

## **G. JEA**

### **Residential Programs**

*Residential Energy Audit Program.* Uses auditors to examine homes, educate customers and make recommendations on low-cost or no-cost energy-saving practices and measures.

*Residential Energy Efficient Products.* This program promotes the use of energy efficient lighting and other energy efficient products in homes by offering a financial incentive. JEA includes messaging concerning the proper disposal of bulbs containing mercury.

*Green Built Homes of Florida.* This program encourages the application of energy efficient construction and products in new homes by offering a financial incentive to builders and developers.

*Residential Solar Water Heating.* This program offers a financial incentive to customers to encourage the use of solar water heating technology.

*Residential Solar Net Metering.* This program promotes the use of solar photovoltaic systems by purchasing excessive power from residential customers implementing these systems.

*Neighborhood Efficiency Program.* This program offers education concerning the efficient use of energy and water as well as the direct installation of an array of energy and water efficient measures at no cost to income qualified customers.

### **Commercial Programs**

*Commercial Energy Audit Program.* This program uses auditors to examine the businesses, educate customers, and make recommendations on low-cost or no-cost energy-saving practices and measures.

*Commercial Energy Efficient Products.* This program promotes the use of energy efficient lighting and other energy efficient products in businesses by offering a financial incentive. JEA includes messaging concerning the proper disposal of bulbs containing mercury.

*District Chilled Water Program.* This program utilizes district chilled water to reduce energy costs, other operating costs as well as capital costs.

*Commercial Solar Net Metering.* This program promotes the use of solar photovoltaic systems by purchasing excessive power from commercial customers implementing these systems.