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PUBLIC
SERVICE
COMMISSION

FEECA

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

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

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Florida Public Service Commission

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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. Codified 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 at least every five years. Commission rules have defined goals with respect to annual electric peak demand and energy savings over a ten-year period, with a review every five years. The seven utilities currently subject to FEECA are Florida Power & Light Company (FPL), Duke Energy Florida, Inc. (DEF), 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 conservation 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 existing 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

Over the last 33 years, the FEECA utilities' DSM programs in total have reduced winter peak demand by an estimated 6,506 megawatts (MW) and summer peak demand by an estimated 6,871 MW. The demand savings from these programs have resulted in the deferral or avoidance of a substantial fleet of power plants. These programs have also reduced total electric energy consumption by an estimated 9,330 gigawatt-hours (GWh).

Since 1981, Florida's investor-owned electric utilities have recovered over $6 billion of conservation expenditures for DSM programs through the Energy Conservation Cost Recovery (ECCR) clause. Over $3 billion of the total conservation program expenditures recovered have occurred in the last ten years. In 2013, Florida's investor-owned electric utilities recovered over $435 million in conservation program expenditures, performed more than 197,000 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 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 installing demand-side renewable systems. The Commission's consumer education program offers several tools to promote consumer awareness of conservation and energy efficiency opportunities. Florida's utilities also play an active role in educating Florida's consumers on energy efficiency options.

Conversely, prescriptive mandates play a major role in conservation. The Florida Building Code is adopted and updated with new editions triennially by the Florida Building Commission. In addition, the Florida Building Code is amended annually to incorporate interpretations, clarifications, and update standards. The 2014 draft of the building code emphasizes the thermal envelope of buildings. Specifically, the energy efficiency section of the code focuses on insulation and ventilation measures for air conditioning units, turn-on/turn-off switches for water heaters and pool heaters, and automatic temperature controls for hot water systems. The U.S. Environmental Protection Agency (EPA) is taking steps to boost clothes dryer efficiency. The EPA announced that beginning in 2015, the manufacturers will be able to use the Energy Star label on clothes dryers that use 20 percent less energy than the minimum efficiency standard. The EPA stated that if all residential clothes dryers in the U.S. meet the requirements, the utility cost savings will grow to more than $1.5 billion per year. In addition, more than 22 billion pounds of greenhouse gas emissions would be prevented.

In 2013, the U.S. Department of Energy (DOE) issued an update for the energy conservation standards for residential microwave ovens which could reduce energy consumption by up to 75 percent in standby mode and revised energy conservation standards for residential room air conditioners. The DOE also initiated rulemaking to amend testing procedures for residential refrigerators and freezers to account for ice-making energy use and to update energy use for other features. Once finalized, the new standards for Energy Star certified refrigerators and freezers would use approximately 10 percent less energy than models meeting the current 2014 standards. Lighting standards have changed as well, with various watts of incandescent bulbs being phased out and becoming no longer available for purchase. Seventy-five watt incandescent bulbs were phased out as of January 1, 2013, and as of January 1, 2014, 60 watt and 40 watt incandescent bulbs are no longer available.

Section 2 of this report compares the FEECA utilities' demand and energy savings to the goals set by the Commission during the last goal–setting proceeding. The results of the 2013 achievements towards the 2009 goals illustrated that TECO, Gulf, JEA, and OUC surpassed all demand and energy savings goals in every category. FPL, DEF, and FPUC did not meet goals in every category in 2013. Of the utilities that did not achieve their annual Commission approved goals, most noted that while they failed to meet the goal requirements on an annual level, they were able to meet the requirements on a cumulative level when compared to the 2004 and 2009 goal proceeding requirements.

Section 2 also provides a summary of the Commission's most recent goal-setting proceeding. On November 25, 2014, the Commission voted to approve staff's recommendation regarding the FEECA utilities' proposed goals for the 2015 through 2024 period. The

Commission voted to approve goals based on the Ratepayer Impact Measure (RIM) Test, noting that FPL's approved goals would be based on the unconstrained RIM test.[1] The RIM test is a cost-effectiveness analysis that ensures that all ratepayers, both participants and non-participants, benefit from utility-sponsored conservation programs and minimizes cross subsidies between customers. Utilities were also directed to show how all customers, including low-income customers, will be made aware of conservation opportunities. The near term impact will lower the dollars for conservation currently being recovered from customers. In addition, the Commission voted to discontinue the investor-owned utilities' (IOU) solar pilot programs by the end of 2015. The Commission based its decision on evidence in the record that the existing solar pilot programs have not proven to be cost-effective and represented a subsidy between the general body of ratepayers and the few that participated in the programs. The Commission also directed its staff to hold a workshop to explore more cost-effective ways to encourage solar adoption in Florida.

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 savings available from utility programs. Utility programs are designed to encourage actions to conserve energy that exceeds the level of conservation resulting from current building codes and minimum efficiency standards. It should be noted that the level of 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, as well as customer education regarding 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.

Conservation and renewable energy are expected to continue to play an important role in Florida's energy future. The Commission will continue its efforts to encourage cost-effective conservation and renewable energy to reduce the use of fossil fuels and defer the need for new generating capacity to ensure a balanced mix of resources that reliably and cost-effectively meet the needs of Florida's ratepayers.

[1] See Order No. PSC-14-0696-FOF-GU, issued December 16, 2014, in Docket Nos. 130199 through 130205, In re: Commission review of numeric goals (Florida Power & Light Company, Duke Energy Florida, Inc., Tampa Electric Company, Gulf Power Company, JEA, Orlando Utilities Commission, Florida Public Utilities Company).

Section 1. The Florida Energy Efficiency and Conservation Act

1.1 History of FEECA

The Florida Energy Efficiency and Conservation Act (FEECA) emphasizes three key areas: 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 fuel. The Commission is required to establish goals and the FEECA utilities are required to develop demand-side management (DSM) programs to meet these goals.

Originally, all electric utilities in Florida were subject to FEECA. However, in 1989, two changes were made to the law. The first change limited the required electric utilities subject to the law to those with more than 500 gigawatt-hours (GWh) of annual retail sales. During that period, 12 Florida utilities met this threshold requirement and their combined sales accounted for 94 percent of Florida's retail electricity sales. The second change to the law included language that encouraged cogeneration.

In 1996, minimum retail sales thresholds for subject utilities were raised by the Legislature to 2,000 GWh. Retail sales for these utilities were measured as of July 1, 1993, and two municipal utilities' sales fell within the boundaries of the new law: JEA and Orlando Utilities Commission (OUC). In addition to these two utilities, all five Florida investor-owned utilities (IOU) must comply with FEECA regardless of sales levels. No rural electric cooperatives are currently subject to FEECA.

FEECA utilities currently account for more than 90 percent of all Florida energy sales as shown below in Table 1. The table reflects 2013 energy sales by each FEECA utility, as well as all non-FEECA utilities. In addition, the table 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 2013

Florida's FEECA Utilities	Energy Sales GWh	% of Total Energy Sales
Florida Power & Light Company	102,784	47.4
Duke Energy Florida	36,616	16.9
Tampa Electric Company	18,418	8.5
Gulf Power Company	10,930	5.0
Florida Public Utilities Company	631	0.3
JEA	11,556	5.3
Orlando Utilities Commission	6,025	2.8
FEECA Utilities' Total	**186,960**	**90.4**
Non-FEECA Utilities' Total	29,808	9.6
Total Statewide Energy Sales	**216,768**	**100.0**

Source: FEECA Utilities' Ten Year Site Plans and responses to staff's data requests

During May 2013, the Commission's Office of Auditing and Performance Analysis completed a report titled *Review of Administrative Efficiency of Utility Demand-Side Management Programs*. As the title implies, an audit was performed to examine the administrative efficiency of the DSM programs of the four major investor-owned electric utilities in Florida: FPL, DEF, TECO, and Gulf. The purpose of the audit was to review each utility's processes to efficiently develop, measure, analyze, and improve its DSM programs. Staff also examined how each utility evaluates DSM program efficiencies and cost-effectiveness, including how each utility tracks costs associated with implementing the DSM programs, how each utility evaluates programs for modification or replacement, and how each utility relies on industry or peer-to-peer analysis to evaluate or improve its DSM programs. The audit revealed that no major cause for concern exists regarding the manner in which the IOUs utilize their resources to administer their DSM programs. A copy of the report is available on the Commission's website at http://www.

1.2 Conservation Tools and DSM Savings

Although utility-sponsored DSM programs are an unquestionably important means of achieving energy conservation, consumer choice, and mandatory efficiency standards are keys to reducing demand and energy growth rates in Florida. Consumers respond to price signals by

buying smaller, more energy-efficient homes, installing efficiency upgrades, using more cost-effective demand-side renewable systems, behavioral changes, and a host of other actions. The Commission's actions to educate Florida's consumers on conservation opportunities are discussed further in Section 4 of this report.

Home and business energy audits serve as the basis for many DSM and conservation programs by allowing utilities the opportunity to evaluate conservation opportunities for their customers. Pursuant to Section 366.82(11), F.S., all FEECA utilities are required to offer energy audits to residential customers. During 2013, Florida's investor-owned utilities performed more than 197,000 residential energy audits. Each FEECA utility also offers energy audits to its commercial customers. Energy audits are the gateway for the FEECA utilities to 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 estimated to have reduced winter peak demand by an estimated 6,506 MW and reduced annual energy consumption by an estimated 9,330 GWh. The demand savings from these programs have resulted in the deferral or avoidance of a substantial fleet of baseload, intermediate, and peaking power plants.

Table 2. Estimated Cumulative DSM Savings Since 1980

	Savings
Summer Peak Demand	6,871 MW
Winter Peak Demand	6,506 MW
Annual Energy Reduction	9,330 GWh

Source: Florida Reliability Coordinating Council Load and Resource Plan

Utility programs are designed to incent conservation behavior that exceeds the minimum standards in building codes and appliance efficiency standards. The potential demand and energy savings from utility-sponsored conservation programs are affected by consumer education and behavior, building codes, and appliance efficiency standards. The current level of energy efficiency standards and building codes creates a baseline used in determining the cost-effectiveness of a potential DSM program. The higher the current efficiency standards and codes, the less opportunity there is for utility-sponsored programs to achieve cost-effectiveness.

At the state level, building code requirements established by the Florida Building Commission continue to emphasize the importance of energy efficiency in buildings. The Florida Building Code is adopted and updated with new editions triennially by the Florida Building Commission. It is amended annually to incorporate interpretations, clarifications, and update standards. State and Federal minimum efficiency standards for residential appliances and commercial equipment, along with building construction standards, complement state level utility-sponsored DSM programs for which consumer participation is voluntary. The 2014 draft of the building code places emphasis on thermal envelopes of buildings. Specifically, the energy efficiency section of the code focuses on insulation and ventilation measures for air conditioning units, turn-

on/turn-off switches for water heaters and pool heaters, and automatic temperature controls for hot water systems.

At the federal level, the U.S. DOE establishes minimum energy efficiency standards for more than 50 categories of appliances and equipment representing approximately 90 percent of home energy use, 60 percent of commercial building use, and 29 percent of industrial energy use. Throughout 2013, the DOE completed more than 30 rulemaking actions, including four final rules on new energy efficiency standards. In 2014, appliance standards were finalized for general service fluorescent lamps, incandescent reflector lamps, packaged terminal air conditioners, and heat pumps. Over the next few years, several other appliance standard actions are projected to be finalized regarding items such as air conditioning, heat pumps, water heaters, clothes washers, and dishwashers, to name a few.

The DOE's final rules, issued in 2013, included an update for the energy conservation standards for residential microwave ovens in standby mode and off mode and revised energy conservation standards for residential room air conditioners. The DOE also initiated rulemaking to amend testing procedures for residential refrigerators and freezers to account for ice making energy use and to update energy use for other features. Once finalized, the new standards for Energy Star certified refrigerators and freezers would result in approximately 10 percent less energy use compared to the current 2014 standards.

The new standards for microwave ovens will go into effect starting in 2016, and are expected to save U.S. households approximately $3 billion on their energy bills through 2030. The DOE estimates that the changes in the energy efficiency standards for microwave ovens will reduce energy consumption in standby mode by 75 percent in countertop microwave ovens and over-the-range microwave ovens without convection features, and by 51 percent for over-the-range microwave ovens with convection. Lighting standards have changed as well, with various watts of incandescent bulbs being phased out and becoming no longer available for purchase. Beginning January 1, 2013, 75 watt incandescent bulbs were phased out and, as of January 1, 2014, 60 watt and 40 watt incandescent bulbs were no longer available.

In May 2014, the U.S. Environmental Protection Agency (EPA) announced the first Energy Star label for clothes dryers. Energy Star is a government-backed labeling program that helps people and organizations save money and reduce greenhouse gas emissions by identifying office equipment, home appliances, and electronics featuring superior energy efficiency. The EPA stated that if all residential clothes dryers in the U.S. meet the requirements, the utility cost savings will grow to more than $1.5 billion per year. In addition, more than 22 billion pounds of greenhouse gas emissions would be prevented.

Table 3 describes the expected timeframes for changes in appliance standards for those appliances where federal efficiency rulemaking has begun.

Table 3. Federal Appliance Standards

Product Categories	Approx. Rule Initiation Date	Final Action Date
Heating Products Rulemakings		
Certain Commercial Heating, Air-Conditioning and Water Heating Equipment Contained in ASHRAE Standard 90.1 (2013)	FY 2014, Q1	April 2015/2016
Single-Package Vertical Air Conditioner (AC) and Heat Pump (HP) Standard	FY 2012, Q1	May 2015
Commercial Packaged Boilers Standard	FY 2013, Q2	July 2015
Commercial Warm Air Furnaces Standard	FY 2013, Q1	December 2015
Residential Furnaces Standard	FY 2013, Q4	December 2015 *
Hearth Products Standard	FY 2014, Q2	December 2015
Commercial and Industrial Fans and Blowers Standard	FY 2011, Q3	February 2016
Residential Boilers Standard	FY 2013, Q1	July 2016
Commercial Water Heaters Standard	FY 2014, Q2	July 2016
Residential Water Heaters Standard	FY 2013, Q2	March 2018
Residential Direct Heating Equipment and Pool Heaters Standard	FY 2014, Q1	March 2018
Transformers, Motors, and Pumps Rulemakings		
Commercial and Industrial Pumps Standard	FY 2011, Q2	December 2015 *
Commercial Air Compressors Standard	FY 2013, Q1	August 2016
Lighting Rulemakings		
General Service Fluorescent Lamps and Incandescent Reflector Lamps Standard	FY 2011, Q2	November 2014
High-Intensity Discharge Lamps Standard	FY 2010, Q3	April 2015
Ceiling Fans and Ceiling Fan Light Kits Standard	FY2012, Q4	January 2016
General Service Incandescent Lamps, Compact Fluorescent Lamps, General Service LEDs, and General Service Organic Light-Emitting Diodes (OLEDs) Standard	FY 2014, Q2	December 2016
Home Appliances Rulemakings		
Commercial Clothes Washers Standard	FY 2012, Q2	January 2015
Residential Dishwashers Standard	FY2013, Q1	June 2015
Wine Chillers and Miscellaneous Refrigeration Products Standard	FY2011, Q3	February 2016
Portable Air Conditioners Standard	FY2013, Q3	August 2016*
Kitchen Ranges and Ovens Standard	FY 2014, Q1	March 2017
Dehumidifiers Standard	FY 2013, Q1	March 2017
Space Cooling Rulemakings		
Commercial Packaged Air Conditioning and Heating Equipment Standard	FY 2013, Q1	December 2015
Packaged Terminal Air Conditioners and Heat Pumps Standard	FY 2013, Q2	September 2014
Commercial Refrigeration Rulemakings		
Automatic Commercial Ice Makers Standard	FY 2011, Q3	January 2015*
Refrigerated Beverage Vending Machines Standard	FY 2013, Q2	August 2017
Enforcement Rulemakings		
Enforcement of Regional Standards for Furnaces and Central Air Conditioners	FY 2012, Q1	December 2014 *

*Final action dates followed by an asterisk represent a change from the last semi-annual implementation report.

Since 2009, the cost-effectiveness of DSM measures has declined due to several factors outside of the FEECA utilities' control. To begin with, customer load growth has declined which defers the need for new generation resources. Second, as mentioned previously, new federal appliance efficiency standards and state building codes are coming into existence. This decreases the amount of additional cost-effective DSM measures that the electric utilities can offer. Third, the price of natural gas has declined by approximately half over the past five years. This reduces customer bills but also reduces the future benefit of additional DSM measures.

Utility programs offer rebates and incentives for appliances that exceed federally established minimum efficiency standards. Increases in federal efficiency standards, independent conservation efforts by consumers, and general conservation practices may increase utilities' challenges in achieving additional demand and energy savings through DSM programs. Moreover, participation rates in utility programs are driven by the anticipated payback to the participating customer. While utility incentives will tend to increase the customers "take rate" in programs, the cost of electricity is included in each customer's calculations to participate. Thus, low or declining electric prices tend to reduce the market participation in DSM programs.

1.3 Conservation Cost Recovery

Administrative costs, equipment, and incentive payments to participants all are costs of implementing a DSM program. IOUs are allowed to recoup prudent and reasonable expenses for DSM programs approved by the Commission through the Energy Conservation Cost Recovery (ECCR) clause. Before attempting to recover costs through the ECCR clause, utilities must prove their DSM programs are cost-effective and therefore benefit ratepayers in general. Utilities must also obtain Commission approval for program modifications before seeking cost recovery.

IOUs have recovered more than $6 billion in conservation expenditures via the ECCR clause since 1981; over $3 billion of these funds have been recovered in the last 10 years. Table 4 shows the annual DSM expenditures recovered from customers by Florida's IOUs for the 2004 through 2013 period. As shown in Table 4, the IOUs' annual expenditures demonstrated general stability from 2004 to 2007, primarily because DSM programs reached saturation in participation levels and became less cost-effective due to reduced cost of new generating units. From 2008 through 2013, IOUs generally saw growth in utility DSM expenditures due to adding and/or changing some programs, including programs designed to encourage consumers to install new energy efficiency technologies, and offering increased incentive levels.

Table 4. DSM Expenditures Recovered Through the ECCR Clause

	FPL	DEF	TECO	Gulf	FPUC	Total
2004	$145,679,192	$60,072,362	$16,357,137	$7,619,637	$382,504	$230,110,832
2005	$144,192,696	$59,143,076	$15,583,727	$8,826,754	$473,610	$228,219,863
2006	$146,205,249	$59,543,107	$14,099,638	$9,562,098	$456,162	$229,866,254
2007	$146,204,978	$67,109,815	$13,652,585	$9,107,952	$515,022	$236,589,592
2008	$180,016,994	$77,593,960	$16,989,411	$9,257,740	$534,350	$284,392,455
2009	$186,051,381	$80,954,071	$32,243,315	$10,576,197	$540,433	$310,365,497
2010	$216,568,331	$85,354,923	$43,371,442	$9,859,407	$693,331	$355,847,434
2011	$228,293,641	$91,738,039	$43,349,092	$15,003,596	$941,462	$379,325,830
2012	$224,033,740	$93,728108	$46,593,831	$22,925,503	$651,145	$387,932,237
2013	$244,296,253	$115,035,455	$47,502,652	$27,431,962	$806,698	$435,073,020
Total						**$3,077,723,014**

Source: Docket Nos. 040004-EG through 140004-EG, Schedules CT-3

During the annual ECCR clause proceedings, the Commission determines an energy conservation cost recovery factor for application to each customer's bill for the following calendar year. These factors are set annually based on each utility's estimated conservation costs for the next calendar year, along with a reconciliation for any actual conservation cost under- or over-recovery for the previous year. The Commission most recently set conservation cost recovery factors in November 2014.[2] These factors take effect with the first billing cycle of 2015.

Table 5 illustrates the IOUs' conservation cost recovery factors for application to residential customer bills. These factors were applied to a bill based on 1,000 kilowatt-hour (kWh) energy usage to estimate the impact on a typical residential customer's monthly bill.

Table 5. Residential Conservation Cost Recovery Factors in 2015

Utility	Residential ECCR Factor (cents/kWh)	Monthly Bill Impact (based on 1,000 kWh)
FPL	0.200	$2.00
DEF	0.270	$2.70
TECO	0.255	$2.55
Gulf	0.259	$2.59
FPUC	0.100	$1.00

Source: Order No. PSC-14-0632-FOF-EG

Natural gas local distribution companies (LDC) also offer conservation programs to their customers, although the Commission does not set goals for these companies currently. Natural gas programs typically include the provision of incentives for the replacement of less efficient appliances with more efficient versions. As a result, LDCs have historically spent the majority of their conservation program costs promoting the use of natural gas to residential home builders and home owners. These actions are achieved by providing rebates that support the installation of energy efficient appliances. Recently, the natural gas LDCs received approval from the Commission to offer natural gas programs to their commercial customers.[3] The programs will allow the LDCs to incentivize those commercial customers who use efficient end-use natural gas appliances, similar to what is offered to residential customers.

Commission Rule 25-17.015, Florida Administrative Code (F.A.C.), permits natural gas distribution companies to seek recovery for their conservation programs. The Commission most recently set conservation cost recovery factors in November 2014.[4] These factors will take effect

[2] See Order No. PSC-14-0632-FOF-EG, issued October 31, 2014, in Docket No. 140002-EG, In re: Energy Conservation Cost Recovery Clause.

[3] See Docket No. 130167-EG; In re: Petition for approval of natural gas energy conservation programs for commercial customers, by Associated Gas Distributors of Florida.

[4] See Order No. PSC-14-0655-FOF-GU; issued November 6, 2014; in Docket No. 140004-GU; In re: Natural Gas Conservation Cost Recovery.

with the first billing cycle of 2015. Table 6 displays the local distribution companies' conservation cost recovery factors and the impact on a typical residential customer's bill using 20 therms of natural gas per month.

Table 6. Residential Natural Gas Cost Recovery Factors in 2015

Utility	ECCR Factor (cents/therm)	Monthly Bill Impact (based on 20 therms)
Chesapeake Utilities	25.336	$5.07
Florida City Gas	14.392	$2.88
Florida Public Utilities	11.097	$2.22
Peoples Gas System	9.207	$1.84
St. Joe Natural Gas	23.810	$4.76
Indiantown Gas Company	10.242	$2.05
Sebring Gas System	15.287	$3.06

Source: Order No. PSC-14-0655-FOF-GU

Section 2. Analytics for Setting Demand-Side Management Goals

2.1 Cost-Effectiveness

Utility-sponsored DSM programs can benefit the general body of electric ratepayers by offsetting the need for future power plant construction. These programs therefore can reduce costs to ratepayers by postponing capital expenditures and reducing current energy production costs, including fuel and variable operating and maintenance-related costs, and by improving reliability. On the other hand, the deferral of new power plants can forgo the benefits of more efficient power production and the associated lower emission rates for certain regulated pollutants.

Section 366.82, F.S., requires utility-sponsored conservation programs to be cost-effective. This requirement is codified in Rule 25-17.008, F.A.C., which identifies cost-effective methodologies to be used, as well as cost and benefit information utilities must provide the Commission whenever an assessment of an existing, new or modified conservation program is requested. In order to be eligible to qualify for cost-recovery, utilities are required to provide a cost-effectiveness analysis of each program. This analysis is done via 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 analyzes 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. Failure to demonstrate cost-effectiveness under this test would infer that rational customers would not elect to participate in this program.

RIM test. The RIM test is designed to ensure that all ratepayers, not just the program's participants, will benefit from a proposed DSM program. 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. 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 social perspective. This test measures the net costs of a DSM program based on its total costs, including both the participants' 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. Moreover, if appropriate, certain external costs and benefits such as environmental impacts may be taken into account in the TRC test. Because incentives and foregone revenues are not treated as "costs", electric rates for all customers will be higher for programs that are implemented using the TRC test.

Table 7 further illustrates the costs and benefits considered in the three Commission-approved cost-effectiveness methodologies.

Table 7. Summary of Cost-Effectiveness Methodologies

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

IOUs also are required by the Commission to assess programs regularly. When programs prove no longer cost-effective, utilities must petition the Commission for modification or discontinuation of the program. For example, programs may need to be modified if a more stringent appliance efficiency standard or building code is adopted. In contrast, if new efficiency measures become available which are cost-effective, the utility may petition the Commission for approval of a 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 consider any costs imposed by state and federal regulations on greenhouse gas emissions. The Commission is also responsible for assessing the cost-effectiveness of all demand-side and supply-side energy conservation measures, including demand-side renewable energy systems. 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 IOUs subject to FEECA.

2.2 Commission-Established Goals

During the recent goal-setting proceeding, the FEECA utilities proposed goals based upon the RIM test. The RIM test is a cost-effectiveness analysis that ensures that all ratepayers, both participants and non-participants, benefit from utility-sponsored conservation programs. Utilities were also directed to show how all customers, including low-income customers, will be made aware of conservation opportunities. The near term impact should put downward pressure on all customer bills. FPL, however, proposed limiting its DSM goals to what its resource needs are in terms of megawatts or new capacity, referred to as a "constrained" RIM portfolio. After considering the evidence within the docket, on December 16, 2014, the Commission established goals for the FEECA utilities in Order No. PSC-14-0696-FOF-EU. The Order establishes annual numeric goals for the FEECA utilities for reductions in summer peak demand, winter peak demand, and annual energy for the period 2015-2024.

Since the last DSM goal-setting process in 2009, the cost-effectiveness of DSM measures has declined due to several factors outside of the FEECA utilities' control. To begin with, customer load growth has declined, which defers the need for new generation resources. Second, new appliance efficiency standards and state building codes are coming into effect. As a result of these new standards, the amount of cost-effective conservation measures available to potential customers has declined. Third, the price of natural gas in Florida has declined, which along with reducing customer bills, also decreases the future benefit of additional DSM measures.

Overall, the proposed goals of the FEECA utilities were lower than those previously approved by the Commission in 2009 because of the aforementioned need for less new generating capacity, coupled with much lower fuel costs. The Commission voted to approve the goals based on the RIM cost-effectiveness analysis, noting that FPL's approved goals would be based on the unconstrained RIM test. Doing so addressed concerns that were voiced at the hearing regarding subsidies between individuals who can participate in DSM programs and individuals who cannot participate.

Table 8 shows the summer demand, winter demand, and annual energy reduction goals ultimately approved for the FEECA utilities by the Commission.

Table 8. Commission-Approved DSM Goals (2015-2024)

	Summer Demand Goals (MW)	Winter Demand Goals (MW)	Annual Energy Goals (GWh)
FPL	526.10	324.20	526.30
DEF	259.00	419.30	195.00
TECO	56.30	78.30	144.30
Gulf	68.10	36.70	84.20
FPUC	1.28	0.44	2.04
OUC	4.99	8.41	12.96
JEA	10.80	9.67	25.80
Total	926.57	877.02	990.59

Source: PSC Order No.PSC-14-0696-FOF-EU

2.3 Assessing Goal Achievement

Commission rules require separate goals be set for residential and commercial/industrial (C/I) customers, assigning context to measuring goal achievement within these two primary customer categories. Each utility's achievements in these categories are also combined and compared against total goals as the value of a system's demand and energy savings has no relation to the sector—business or residential—in which the savings occur.

FEECA utilities are required by Rule 25-17.0021, F.A.C., to file annual reports that summarize their individual demand and energy savings for approved DSM plans. Year 2010 was the first year in which goals were revised and the Commission concluded that each utility's progress toward achieving their goals should be viewed on an annual basis. The FEECA utilities' annual reports can be found on the Commission's website at the following link: http://www.floridapsc.com/ElectricNaturalGas/ARDemandSidePlans.

Monitoring annual achievements enables the Commission to understand which utility programs are working and which may need to be modified. In addition to reviewing the annual reports, the FEECA utilities were required to respond to staff data requests relating to their ability to meet performance levels. These data requests sought explanations about factors that prevented the FEECA utilities from achieving targeted participation levels, including information specific to which programs in the residential and commercial/industrial sectors contributed to their achieving or falling short of projected participation levels.

Table 9 illustrates 2013 annual residential, C/I and total goal and savings figures for each FEECA utility. The bold numbers indicate instances in which a corresponding utility did not achieve its goals in a particular category.

Table 9. DSM Goals Compared to Annual (2013) Achievements

Utility	Winter (MW)		Summer (MW)		Annual (GWh)	
	Goals	Reduction	Goals	Reduction	Goals	Reduction
FPL						
Residential	56.3	**40.7**	98.5	**84.7**	186.7	**138.7**
Commercial/Industrial	13.1	14.9	81.3	**42.3**	202.7	**75.5**
Total	69.4	**55.6**	179.8	**127.0**	389.4	**214.2**
DEF						
Residential	93.0	**48.0**	86.0	**26.0**	283.0	**41.0**
Commercial/Industrial	12.0	21.0	26.0	27.0	38.0	43.0
Total	105.0	**69.0**	112.0	**53.0**	321.0	**84.0**
TECO						
Residential	11.5	13.3	9.9	12.8	20.6	26.4
Commercial/Industrial	1.3	6.8	5.1	9.2	16.2	23.2
Total	12.8	20.1	15.0	22.0	36.8	49.6
Gulf						
Residential	8.5	23.5	10.5	22.7	43.8	69.7
Commercial/Industrial	0.9	3.7	2.4	7.5	9.5	25.6
Total	9.4	27.2	12.9	30.2	53.3	95.3
FPUC						
Residential	0.1	0.4	0.2	0.6	0.5	1.3
Commercial/Industrial	0.1	**0.04**	0.2	**0.1**	0.8	**0.2**
Total	0.2	0.44	0.4	0.7	1.3	1.5
JEA						
Residential	1.0	2.7	1.2	2.3	5.4	16.5
Commercial/Industrial	0.4	1.7	0.7	1.2	10.2	15.6
Total	1.4	4.4	1.9	3.5	15.6	32.1
OUC						
Residential	0.2	0.5	0.5	0.7	1.8	1.9
Commercial/Industrial	0.7	0.9	0.7	0.9	1.8	4.5
Total	0.9	1.4	1.2	1.6	3.6	6.4

*****Bold numbers indicate the utility did not meet its annual goals.
Source: FEECA utility demand-side management annual reports

The results of the 2013 achievements towards the 2009 goals illustrated that TECO, Gulf, JEA, and OUC surpassed all demand and energy savings goals in every category. FPL, DEF,

and FPUC did not meet goals in every category in 2013. Of the utilities that did not achieve their annual Commission approved goals, most noted that while they failed to meet the goal requirements on an annual level, they were able to meet the requirements on a cumulative level when using both the 2004 and 2009 goal proceeding requirements. Each utility's performance in 2013, based on the goals previously set in 2009, is discussed below.

The Commission allowed variances for both FPL and DEF for complying with the 2009 goals. On a system-wide basis, FPL did not meet its annual goals. In Order No. PSC-09-0855-FOF-EG, issued December 30, 2009, in Docket No. 080407-EG, the Commission established annual numeric goals for FPL. FPL's March 30, 2010 initial DSM filing to meet the established goals was insufficient. As a result, the Commission directed FPL to file specific program modifications or additions needed for the company's DSM Plan to comply with the goals established in the Order. FPL filed a modified plan on March 25, 2011, that would modify certain programs to comply with the goals set by the Commission. However, the modified plan, while complying with the Order, would cause a significant increase in the rates paid by FPL customers. Consequently, the Commission directed FPL to continue with approved programs based on its 2004 DSM plan, which yielded significant increases in conservation and decreases in the growth of energy and peak demand, while protecting ratepayers from undue rate increases.

Similarly, DEF did not meet its annual goals for residential programs. In Order No. PSC-09-0855-FOF-EG, issued December 30, 2009, in Docket No 080408-EG, the Commission established annual numeric goals for DEF. DEF's March 30, 2010 initial DSM filing to meet the established goals was insufficient. As a result, the Commission directed DEF to file specific program modifications or additions needed for the company's DSM Plan to reduce the consumer rate impact in addition to the DSM plan to meet the original goals set by the Commission. DEF's modified plan also failed to meet the goals established by the Commission and caused a significant increase in DEF's customer rates. Consequently, the Commission directed DEF to continue with approved programs based on its 2004 DSM plan, which yielded significant increases in conservation and decreases in the growth of energy and peak demand, while mitigating rate impact.

FPUC was able to meet both its total and residential winter and summer demand, as well as its annual energy goals, but was unable to meet its C/I winter and summer demand and annual energy goals. FPUC explains the lack of participation in some of its commercial programs contributed to its inability to meet its C/I goals.

2.4 Summary of Recent DSM and Goal Setting Activities

To meet the statutory requirement that specifies goals must be reviewed at least every five years, in mid 2013, the Commission set a schedule to establish goals for the FEECA utilities by December 2014.[5] Both FPUC and OUC independently filed petitions to use proxy methodologies to establish their goals. Both stated that costs associated with updating the 2009 Technical Potential Study, performing the subsequent analyses required by the Order Establishing Procedure, and putting on testimony in support of the analyses would represent a hardship to them and their ratepayers due to their small size. On August 4, 2013, the Commission voted to approve the proxy methodologies and excuse FPUC and OUC from participating in the goals hearing.[6]

On July 21 through July 22, 2014, the Commission heard evidence from the FEECA utilities and intervenors regarding the proposed DSM goals. Highlights from the proceeding included discussions regarding the FEECA utilities' numerical goals, payback/subsidization, consumer education, and solar initiatives. When setting the goals, the Commission considers the costs and benefits of conservation programs to customers who choose to participate in a program, as well as those who do not participate, because all customers pay for the program.

Based on the record evidence in the DSM goals setting proceeding, on November 25, 2014, the Commission voted to approve goals based on a RIM cost-effectiveness analysis. The Commission noted that FPL's approved goals would be based on the unconstrained RIM test. By approving goals based on the RIM test, the Commission ensured that rates would be the same or lower than they would have otherwise been, and that cross subsidies among ratepayer groups are minimized. The Commission also directed the utilities to show in their DSM plans how they would make all customers, in particular low-income customers, aware of energy efficiency opportunities and utility programs. In addition, the Commission voted to discontinue the solar pilot programs of the investor-owned utilities at the end of 2015. The Commission based its decision on evidence in the record that demonstrated that the solar pilot programs have not proven to be cost-effective and represented a subsidy between the general body of ratepayers and the few that participated in the programs.

The Final Order, Order No. PSC-14-0696-FOF-EU, was issued December 16, 2014. Within 90 days of the Final Order, the Commission requires FEECA utilities to file DSM plans designed to meet these goals. Following approval of the DSM plans, the IOUs will be required to submit program standards providing detailed descriptions of how each DSM program is administered; the Commission must approve standards before implementation begins.

[5] See Docket Nos. 130199-EI through 130205-EI.
[6] See Order No. PSC-13-0645-PAA-EU, in Docket Nos. 130204-EM and 130205-EI, issued December 4, 2013.

Solar Programs

Pursuant to Section 366.82(2), F.S., of the FEECA statute, the Commission is charged with evaluating the need for incentives to promote demand-side renewable energy resources. In 2009, in response to this statute, IOUs were instructed by the Commission to spend 10 percent of their historic energy conservation cost recovery expenditures as an annual cap for solar water heating (WH) and solar photovoltaic (PV) pilot programs.[7] As part of their proposed DSM plans, each IOU also proposed solar programs, which, with the exception of FPL, were approved by the Commission in 2010; subsequently in 2011, FPL's solar programs were approved. In an effort to comport with the FEECA revision to encourage demand-side renewables, the Commission approved the solar programs as pilot programs even though these programs were determined not to be cost-effective. The Commission's intent was to evaluate the results of the pilot programs in a subsequent goals proceeding. Table 10 represents the Commission approved annual expenditure cap for the IOUs' solar pilot programs through 2015.

Table 10. Commission-Approved Annual Expenditures for Solar Pilot Programs

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

Source: Order No. PSC-09-0855-FOF-GU

[7] 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.

During 2013, FEECA IOU utilities provided rebates for over 2,000 solar PV and water heating facilities in the residential and commercial sectors combined. Many of the programs offering rebates for installing residential solar PV systems were subscribed to capacity just hours after approval, demonstrating high customer demand for rebates for this type of solar technology. Solar pilot programs using annual funding also include residential, commercial, and low-income solar thermal (water heating) and PV panels for schools. Table 11 below further reflects the quantity of PV and solar water heating installations funded by the five IOUs in both residential and commercial sectors.

Table 11. Solar Pilot Program Installations in 2013

Installations	FPL	DEF	TECO	Gulf	FPUC	Total
Residential Solar Water Heating	1,084	283	52	23	1	1,443
Commercial Solar Water Heating	7	N/A	N/A	N/A	N/A	7
Residential Photovoltaic	278	152	56	44	9	539
Commercial Photovoltaic	56	12	9	N/A	N/A	77
Total WH/PV Installations	1,425	447	117	67	10	2,066
Total WH/PV Expenditures	$8,361,244	$3,659,944	$1,368,189	$461,715	$47,461	$13,898,553

Source: Response to staff data requests

The Commission voted to terminate these programs by the end of 2015 because an analysis of the pilot programs' results showed that the pilot programs remained non-cost-effective, and substantial cross subsidies were involved between participants and non-participants. However, the Commission directed its staff to explore more cost-effective ways to encourage solar adoption in Florida.

Section 3. Overview of Florida's Electricity Market

3.1 Energy Demand in Florida

Florida's total electric consumption ranks among the highest in the country largely because of its sizeable population and climate-induced high demand for cooling. The high concentration of residential customers coupled with extensive use of air conditioning, results in large swings in peak demand. Understanding this pattern and why it occurs—high summer air-conditioning loads and electricity use for heating during winter months—is imperative to comprehending the importance of conservation in Florida. Table 12 shows residential customers make up nearly 89 percent of Florida's electricity customers and purchase 52 percent of its electrical energy. Florida's commercial electrical usage rates comprise about 38 percent, while industrial customers purchase the remaining 10 percent.

Table 12. Florida's Electric Customers by Class and Consumption in 2013

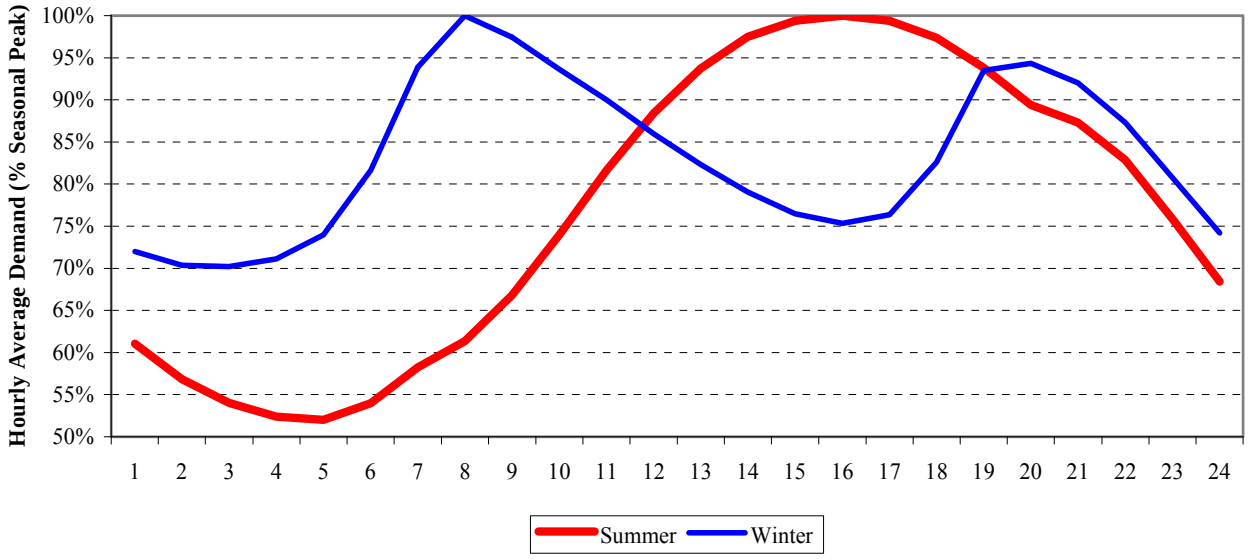
Customer Class	Number of Customers	% of Customers	Energy Sales (gigawatt-hours)	% of Sales
Residential	8,503,879	88.7	110,097	52.3
Commercial	1,056,909	11.0	80,893	38.4
Industrial	24,941	0.3	19,645	9.3
Total	9,585,729	100.0	210,635	100.0

Source: Florida Reliability Coordinating Council Load and Resource Plan

The effects of Florida's high temperatures and humidity include fluctuation in residential customers' electrical usage throughout the day. In the summer, residential energy use peaks in early evening; in the winter it peaks mid-morning and late evening. These peaks contrast with industrial use, which tends to demonstrate more uniformity throughout the day. These usage patterns cause greater trough to peak variation in the demand for energy consumed in Florida than in other states with more industrial customers.

Figure 1 shows the daily load shape curves for typical Florida summer and winter days. In the summer, air-conditioning demand starts to increase in the morning and peaks in the early evening, a pattern which aligns with the sun's heating of buildings. In comparison, the winter load curve has two peaks—the largest in mid-morning, followed by a smaller peak in the late evening—both of which correspond to heating loads.

Figure 1. Typical Florida Daily Electric Load Shapes



Source: Ten Year Site Plan utility responses

Florida is typically a summer-peaking state, which means summer peak demand generally controls the amount of generation required. Florida's 2013 summer peak demand—47,275 MW—surpassed winter peak demand, which was 41,934 MW.

3.2 Florida's Electric Generating Resources

Electric utilities' resource-planning process aims to guarantee enough installed capacity is available 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. Utility-sponsored conservation programs help to reduce peak demand and energy consumption, offsetting the need for new generating capacity.

Florida's mix of electric utilities is made up of five IOUs, 35 municipally-owned electric utilities and 18 rural electric cooperatives. Together, these utilities currently have 52,936 MW of summer electric generating capacity and 56,661 MW of winter generating capacity. Non-utility

generators in the state provide an additional 5,064 MW of summer electric generating capacity and 5,473 MW of winter generating capacity. Supplementary capacity is purchased from out-of-state utilities over the Florida-Georgia transmission interties.

Florida's electric utilities strive to achieve fuel diversity by maintaining a balanced fuel supply with a mix of energy generation from coal, nuclear, natural gas, oil, and other sources. However, natural gas usage continues as the most prevalent fuel for electric generation in Florida. In 2013, natural gas represented approximately 60 percent of the state's net energy for load. Natural gas consumption is projected to decline by 2023 due to planned increases in nuclear generation and a limited impact of new environmental compliance requirements. However, if the U.S. EPA's proposed Clean Power Plan is adopted in its current form, Florida's reliance on natural gas is expected to increase.

In an attempt to reduce natural gas as a generation fuel source, Florida's utilities are encouraged to use other energy resources including renewable energy and nuclear generation. Approximately 1,620 MW of renewable generation capacity is currently operating in Florida. Municipal solid waste and biomass represent the majority of Florida's renewable generation. Other major types of renewable generation operating in Florida include waste heat, hydroelectric, landfill gas, and solar.

Nuclear generation has steadily decreased since 2010 from the outage and eventual retirement of DEF's Crystal River 3. However, uprates consisting of approximately 520 MW of capacity were completed on Florida's remaining nuclear units in 2013. In addition, Florida is scheduled to add new nuclear generation in 2022 and 2023, when FPL's Turkey Point Units 6 and 7 are scheduled to come on-line with an additional combined capacity of 2200 MW.

Section 4. Educating Florida's Consumers on Conservation

4.1 PSC Consumer Education Outreach

While the Florida Public Service Commission (PSC) has statutory authority to require conservation efforts by regulated utilities, as part of the agency's outreach program, the Commission complements utility efforts with its own conservation related activities. To effectively reach as many consumers as possible, the Commission's consumer education program uses a variety of tools to share conservation information, including the PSC website, public events, brochures, press releases, *Consumer Connection E-newsletter*, and Twitter. Conservation information is also available through other governmental and utility websites. Section 4.1 lists related websites for state and federal agencies, investor-owned electric utilities, and local gas distribution companies to further assist consumers. Most of the data in this section covers January through September 2014, due to the report's publication date.

Triple E Award

This year, the PSC is recognizing small businesses for implementing Commission-approved, cost-effective conservation programs. Covering the state's five major geographic areas, each month the PSC gives its *Triple E Award*–for Energy Efficiency Efforts–to a local business that has accomplished superior energy efficiency by working with its local utility to help reduce its energy footprint. PSC *Triple E Award* recipients are highlighted through a press release, issued statewide, and are featured under *Hot Topics* on the PSC's homepage, www.FloridaPSC.com.

Electronic Outreach

An assortment of information is available on the PSC website to help consumers save energy. According to data from Google Analytics, total page views for the entire website for January through October 2014 was 1,072,540. Of these, the consumer assistance pages received 71,389 total page views. One of the more popular website destinations is the PSC's 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 Conservation House is located at: http://www.floridapsc.com/ConsumerAssistance/EnergyConservationHouse.

The Commission also features several energy conservation brochures online and in print to help consumers save energy. Brochures may be viewed and printed directly from the website, http://www.floridaPSC.com/publications/, ordered free online or requested by mail or phone. From January through September 2014, 85,086 brochures were mailed by request.

With its interactive design, the PSC's quarterly *Consumer Connection E-Newsletter* features current energy and water conservation topics, consumer tips, and general Commission information. In text and on video, consumer tips highlighted in 2014 include *Do it Yourself Home Energy Audit, How to File an Effective Complaint,* and *Water Conservation.* The

Consumer Connection E-Newsletter is tweeted and sent to consumers, who can subscribe to the free newsletter at: http://www.floridaPSC.com/consumers/newsletter/newsletterspublic.aspx. News releases, including those on conservation, are distributed to legislators monthly in the *FPSC Update*. The *Update* is also featured and archived on the PSC's homepage.

National Consumer Protection Week

National Consumer Protection Week (NCPW), highlighting consumer protection and education efforts, was important to the FPSC's 2014 conservation education efforts. For the 16th Annual NCPW (March 2-8, 2014), PSC Chairman Art Graham produced a Public Service Announcement (PSA) about scams targeting utility customers, with tips on customer protection. The PSA is available on the PSC website and can be accessed by media outlets for their broadcasts.

Also during NCPW, the PSC made presentations in Madison, Jasper, Lake Panasoffkee, Wildwood, and at Pow Wow's in Deland and Mount Dora showing consumers how to save money through energy and water conservation and how to avoid scams.

Older Americans Month

For the third year, the PSC participated in *Older Americans Month*, a national project celebrated each May to honor and recognize older Americans for their contributions to families, communities, and society. *Safe Today; Healthy Tomorrow* was this year's theme, and the PSC held education sessions at Florida senior centers in Sarasota, Venice, and Bristol on ways to conserve energy and water. For the second year, the PSC distributed brochures and publications at the Jacksonville Expo, where over 5,000 seniors attended. A PSC article highlighting the Commission's website video, "Life Before Air Conditioning," and the Commission's outreach activities was featured in the Florida Department of Elder Affairs' July/August 2014 *Elder Update.*

Energy Awareness Month

Each October, the U.S. Department of Energy sponsors National Energy Awareness Month to promote smart energy choices and highlight economic and job growth, environmental protection, and increased energy independence. The PSC observes Energy Awareness Month annually with events to promote energy efficiency and conservation.

Highlighting the 2013 Energy Awareness Month, then Chairman Ronald A. Brisé and senior staff participated in a locally-sponsored Big Bend Habitat for Humanity Build (BBHH) build. By assisting BBHH, the PSC highlighted Habitat's mission to build energy-efficient, affordable homes for low-income consumers in the community and supported the Energy Awareness Month's energy efficiency and conservation message. The event also recognized the National Association of Regulatory Utility Commissioners' (NARUC) partnership with Habitat for Humanity as part of its "Anybody Can Serve, So Let's Conserve" campaign. NARUC

Commissioners are encouraged to volunteer at various Habitat projects around the country and share their expertise on energy issues.

The PSC and the City of Tallahassee also teamed up with S.A.I.L. High School students to teach children how to conserve energy in an original play, *Turn It On; Turn It Off*, performed at the City's Hopkins Power Plant Open House for Energy Awareness Month and Public Power Week. The Open House offered families an educational outing to learn more about electricity generation and distribution at the Hopkins Generating Station Unit 2, recognized for its advanced technology, environmental protections, design, and operational efficiencies.

Also occurring during Energy Awareness Month was the 2013 Florida Energy Summit, sponsored by the Florida Department of Agriculture and Consumer Services' Office of Energy. The two-day conference in Orlando examined the changing energy sector and how Florida can prepare to take advantage of future economic opportunities. PSC Commissioner Lisa Polak Edgar participated in the opening Summit panel, *Florida by the Numbers*, on the state's changing demographics and how those changes will affect energy usage and infrastructure in Florida.

Community Events

The PSC continuously seeks existing and new community events, venues, and opportunities where conservation materials can be distributed and discussed with citizens. This year, the PSC 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 2014 include:

- Ambassadors for Aging Day
- Active Living Expo
- Housing Authorities--Tallahassee Housing Authority, Pinellas Housing Authority, Clearwater Housing Authority's Barbee Towers and Ralph Richards Tower, and Baker Manor Housing Authority
- Senior Centers--Alachua County, Taylor County, Jefferson County, 8th Avenue, Liberty, Barbara Washington, Mary L. Singleton, Moncrief, Woodville, Dixie County Suwanee County River Economic Council, Lafayette County Suwanee County River Economic Council, Oceanway, Louis Dinah, Lincoln Villa, Ft. Braden, Eagle Lake, Lake Maude, Lake Moton, L. Claudia Allen, Renaissance, Suwanee River Economic Council – Starke, Marks Street, Auburndale, Greater Palm Bay, Bradfordville, Lake Jackson, and Wickham
- Southside Senior Day at Jake Gaither Community Center
- Baker Council on Aging
- Florida Department of Health's American Indian Heritage Month Statewide Live/Webinar
- Northeast Community Action Agency
- Springfield Community Center
- Shine Women's Conference

- Community Rehabilitation Center
- Florida Department of Elder Affairs Elder Summit - Greater Bethlehem African Methodist Episcopal Church
- 5th Annual Southside Community Health and Fitness Fair at Maranatha Seventh-Day Adventist Church
- Florida Department of Elder Affairs' Fraud Prevention Seminar
- Florida Department of Health's Outdoor Community Fair and World Refugee Day
- 1st Annual House District 48 Hispanic Heritage Month Community Celebration
- Career Source Tampa Bay

Hearings and Customer Meetings

As an ongoing outreach initiative, the Commission supplies conservation brochures to consumers at PSC hearings and customer meetings across the state. From January through September 2014, Commission staff distributed information and addressed consumer questions at nine PSC public hearings and meetings. Consumers who file a complaint with the Commission about high electric or natural gas bills also receive conservation information.

Library Outreach Program

Each year, the PSC provides educational packets, including publications and Lifeline brochures and applications in English, Spanish, and Creole, to Florida public libraries across the state for consumer distribution. For the second year, the PSC's Library Outreach Campaign increased from 333 to 583 sites, providing library patrons with PSC publications that feature practical energy and water conservation tips. Following the Campaign, many library requests for additional publications have been filled.

In 2014, over 35,899 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 a March news release, the PSC highlighted the federal government's *Fix a Leak Week* and shared several water conservation strategies. In May, the Commission issued a release for Older Americans Month outlining the importance of learning to conserve resources and save money and a release on *National Drinking Water Week* that included water-saving tips. A July PSC release highlighted the increase in customer-owned renewable energy, based on electric utility reports filed with the PSC. Concluding the PSC's *2013 Energy Saving Challenge*, releases in October through December offered energy saving tailgating tips, efficient holiday gift ideas, and overall conservation awareness.

Youth Education

The Commission emphasizes conservation education for Florida's young consumers. During 2014, 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 PSC to be performed by teen drama groups or young school children for their classmates, thereby increasing the students' interest in learning about conservation. The PSC helped produce both plays in recent years, and the Commission continues to work with school programs and government entities 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.

National Drinking Water Week

In observance of National Drinking Water Week, May 4-10, 2014, the PSC partnered with the City of Tallahassee to encourage young people to conserve water. Students from the Leon High School drama performed *Water Wiser*, at the City's annual *Drop Savers Poster Contest Ceremony*, recognizing winners from Leon County School District's participating fourth-grade classes.

4.2 Related Web Sites

State Agencies and Organizations

Florida Public Service Commission – http://www.floridaFPSC.com/

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

The Office of Energy – http://www.freshfromflorida.com/Divisions-Offices/Energy

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

Florida Weatherization Assistance - http://floridajobs.org/community-planning-and-development/community-services/weatherization-assistance-program

Florida's Local Weatherization Agencies List – http://floridajobs.org/community-planning-and-development/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/

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/

Duke Energy Florida, Inc. – http://www.duke-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. Duke Energy Florida, Inc.

Residential Programs

Home Energy Check. This program provides Duke Energy Florida Inc.'s (DEF) 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 DEF'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, DEF 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, DEF 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 DEF'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 DEF's other programs. Major equipment replacement or other actions that substantially reduce DEF's peak demand requirements are evaluated to determine their impact on DEF'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 DEF 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.

Curtailable 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 DEF. In return for this cooperation, the customer receives a monthly rebate for the curtailable portion of their load.

Technology Development Program. This program allows DEF 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 insulation 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 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 excess 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 excess power from commercial customers implementing these systems.