



FLORIDA  
PUBLIC  
SERVICE  
COMMISSION

# FEECA

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

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

JANUARY 2020



# Florida Public Service Commission

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

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## List of Acronyms

<b>C/I</b>	Commercial and Industrial (Customers)
<b>Commission or FPSC</b>	Florida Public Service Commission
<b>DEF</b>	Duke Energy Florida, LLC
<b>DOE</b>	U.S. Department of Energy
<b>DSM</b>	Demand-Side Management
<b>ECCR</b>	Energy Conservation Cost Recovery
<b>EV</b>	Electric Vehicle
<b>F.A.C.</b>	Florida Administrative Code
<b>FEECA</b>	Florida Energy Efficiency and Conservation Act
<b>FLBC</b>	Florida Building Code
<b>FPL</b>	Florida Power & Light Company
<b>FPUC</b>	Florida Public Utilities Company
<b>F.S.</b>	Florida Statutes
<b>GRIM</b>	Gas Rate Impact Measure Test
<b>Gulf</b>	Gulf Power Company
<b>GWh</b>	Gigawatt-Hour
<b>HVAC</b>	Heating, Ventilation and Air Conditioning
<b>IOU</b>	Investor-Owned Utility
<b>JEA</b>	Formerly known as Jacksonville Electric Authority
<b>kWh</b>	Kilowatt-Hour
<b>LDC</b>	Natural Gas Local Distribution Company
<b>Load</b>	Demand for Electricity
<b>MMBtu</b>	One Million British Thermal Units
<b>MW</b>	Megawatt
<b>MWh</b>	Megawatt-Hour
<b>NGCCR</b>	Natural Gas Conservation Cost Recovery
<b>OUC</b>	Orlando Utilities Commission
<b>O&amp;M</b>	Operations and Maintenance
<b>PV</b>	Photovoltaic
<b>PGS</b>	Peoples Gas System
<b>RIM</b>	Rate Impact Measure Test
<b>TECO</b>	Tampa Electric Company
<b>TRC</b>	Total Resource Cost Test



# Executive Summary

## ***Purpose***

Reducing the growth of Florida's peak electric demand and energy consumption became a statutory objective in 1980, with the enactment of the Florida Energy Efficiency and Conservation Act (FEECA). FEECA emphasizes four key areas: reducing the growth rates of weather-sensitive peak demand and electricity usage, increasing the efficiency of the production and use of electricity and natural gas, encouraging demand-side renewable energy systems, and conserving expensive resources, particularly petroleum fuels. Sections 366.82(2) and 366.82(6), Florida Statutes (F.S.), require the Florida Public Service Commission (FPSC or Commission) to establish goals for the FEECA utilities and review the goals every five years, at minimum. The utilities are required to develop cost-effective demand-side management (DSM) plans that meet those goals and submit them to the Commission for approval.

Energy conservation and DSM in Florida is a multi-pronged approach that includes energy efficiency requirements in building codes for new construction, federal appliance efficiency standards, utility programs, and energy education efforts. Utility programs, which are paid for by all customers, are aimed at increasing efficiency levels above building codes and appliance efficiency standards.

The Commission is required by Section 366.82(10), F.S., to provide an annual report to the Florida Legislature and the Governor summarizing the adopted goals and the progress made toward achieving those goals. Similarly, 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. Pursuant to Section 366.82(10), F.S., this report on conservation results achieved by the FEECA utilities is due to the Florida Legislature and Governor by March 1, 2020. This report reviews the 2018 annual goal results for each of the seven FEECA electric utilities and fulfills these statutory obligations.

The seven electric utilities and single natural gas utility currently subject to FEECA are:

- Five electric investor-owned utilities (IOUs), listed in order of sales
  - Florida Power & Light Company (FPL)
  - Duke Energy Florida, LLC (DEF)
  - Tampa Electric Company (TECO)
  - Gulf Power Company (Gulf)
  - Florida Public Utilities Company (FPUC)
  
- Two municipal electric utilities, listed in order of sales
  - JEA
  - Orlando Utilities Commission (OUC)
  
- One investor-owned natural gas local distribution company (LDC)
  - Peoples Gas System (PGS)

The Commission regulates the rates and conservation cost recovery of the five electric IOUs and the single FEECA LDC. In contrast, the Commission does not regulate the rates or conservation program costs of the two municipal electric utilities for which it sets DSM goals.

### ***Report Layout***

This report presents the FEECA utilities' progress towards achieving the Commission-established goals and the Commission's efforts in overseeing these conservation initiatives. This report details these efforts through the following five sections and appendices:

Section 1 provides a brief history of FEECA and a description of existing tools for increasing conservation throughout the State of Florida.

Section 2 discusses the DSM goalsetting process and the most recent Commission-established goals set for the FEECA utilities.

Section 3 reviews the utilities' goal achievements and progress within Low-Income and Research and Development programs.

Section 4 provides an overview of the associated program costs recovered through the Energy and Natural Gas Conservation Cost Recovery Clauses for 2018.

Section 5 discusses methods the Commission has used to educate consumers about conservation during the prior period, including a list of related web sites.

Appendices A and B provide a list of the currently-offered conservation programs and a description of each program's purpose.

### ***2019 Goalsetting Proceeding***

In April 2019, the electric FEECA utilities filed proposed goals for the 2020-2029 period. On November 5, 2019, the Commission chose to reject the goals proposed by the FEECA utilities. Instead, the Commission opted to continue with the goals that were established in the 2014 goalsetting proceeding. The Commission directed its staff to review the FEECA process for potential updates and revisions as may be appropriate. The FEECA utilities will file DSM plans and programs designed to meet the Commission's goals in early 2020.

The goals established in 2014 were based on estimated energy and demand savings from measures that passed the Rate Impact Measure (RIM) and Participants cost-effectiveness tests. These tests were used to ensure that all ratepayers benefit from energy efficiency programs due to downward pressure on electric rates. Compared to its review in 2009, the Commission identified fewer cost-effective energy efficiency measures in 2014 as a result of more stringent building codes and appliance efficiency standards. Higher appliance efficiency standards and building codes contribute to conservation outside of utility-sponsored DSM programs. Additionally, reduced utility avoided costs, caused by relatively low natural gas prices, resulted in fewer cost-effective measures. The 2019 goalsetting process is discussed further in Section 2.

The Commission also established goals for a natural gas utility for the first time in 2019. The Commission approved goals for PGS, scheduled to take effect in 2020, based on programs it found were cost-effective in August 2019.<sup>1</sup> PGS also developed audit programs for its residential and commercial customers as part of the proceedings. The 2019 goalsetting processes for PGS is further discussed in Section 2.

### **2018 Achievements and Related Program Costs**

Since FEECA's inception, it is estimated that DSM programs offered by electric FEECA utilities have reduced summer peak demand by 7,956 megawatts (MW) and winter peak demand by 7,349 MW. During 2018, the Florida electric FEECA utilities offered 110 residential and commercial programs focused on demand reduction and energy conservation. In addition, FEECA electric utilities performed over 180,000 residential and commercial energy audits. Each FEECA utility's achievements toward the 2018 Commission-approved goals are detailed in Section 3.

The Commission has authority, by statute, to allow investor-owned utilities to recover costs related to conservation.<sup>2</sup> The Commission has implemented this authority through the Energy Conservation Cost Recovery (ECCR) clause. The ECCR clause has been in existence since 1980. For 2018, Florida's investor-owned electric utilities recovered approximately \$328 million in conservation program expenditures.

### **Conclusion**

Conservation in Florida is prompted by customer actions to conserve energy, federal appliance efficiency standards and state building codes for new construction, and utility-sponsored DSM programs. Customers can save energy and reduce their bills through behavioral changes and by investing in energy efficient homes, appliances, and equipment. Federal appliance efficiency standards have become more stringent over time, thus increasing the baseline energy efficiency of new appliances and heating, ventilating, and air conditioning (HVAC) equipment available to Florida's consumers. Likewise, changes in the Florida State Building Code (FLBC) have resulted in more energy efficient new and renovated homes. Florida's electric and natural gas utilities also encourage conservation by offering energy audits, customer education, rebates on energy efficient equipment and building envelope improvements, and demand response programs.

Utilities design DSM programs to encourage conservation that exceeds levels set by current building codes and minimum efficiency standards. More stringent efficiency standards and building codes, as well as customer actions to implement efficiency outside of utility programs, reduce the potential incremental demand and energy savings available from utility-sponsored DSM programs. The level of realized savings from utility programs is uncertain because it requires voluntary participation and, in some cases, changes in customer behavior.

Because all customers pay for the utility conservation programs as a portion of their monthly utility bills, the Commission focuses on ensuring that all customers benefit from utility-

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<sup>1</sup>Order No. PSC-2019-0361-PAA-GU, Docket No. 20180186-GU, In re: Petition for approval of demand side management goals and residential customer assisted and commercial walk-through energy audit programs, by Peoples Gas System, issued August 26, 2019.

<sup>2</sup>Section 366.82(11), F.S.

sponsored DSM programs. The Commission also encourages customers to use energy efficiently through its customer education efforts. Overall, reducing Florida's electric demand and energy usage relies on customer education and participation in utility DSM programs, along with each individual's efforts to save electricity.

Conservation and renewable energy will continue to play an important role in Florida's energy future. The Commission is continuing its efforts to encourage cost-effective conservation that defers the need for new electric-generating capacity and reduces the use of fuel. These initiatives support a balanced mix of resources that reliably and cost-effectively meet the needs of Florida's ratepayers.

# Section 1. Florida Energy Efficiency and Conservation Act

## ***1.1 FEECA History and Implementation***

FEECA emphasizes four key areas: reducing the growth rates of weather-sensitive peak demand and electricity usage, increasing the efficiency of electricity and natural gas production and use, encouraging demand-side renewable energy systems, and conserving expensive resources, particularly petroleum fuels. Pursuant to FEECA, the Commission is required to establish conservation goals and the FEECA utilities must develop DSM programs to meet those goals.

Originally, all electric utilities in Florida were subject to FEECA. In 1989, changes were made to the law limiting the requirement to electric utilities with more than 500 GWh of annual retail sales. At that time, 12 Florida utilities met this threshold requirement and their combined sales accounted for 94 percent of Florida's retail electricity sales. An additional change to the law encouraged cogeneration projects.

In 1996, the Florida Legislature raised the minimum retail sales threshold for municipal and cooperative electric utilities to 2,000 GWh. Retail sales for these utilities were measured as of July 1, 1993, and two municipal utilities met the threshold of the new law: JEA and OUC. In addition to these two utilities, all five Florida investor-owned electric utilities must comply with FEECA regardless of sales levels. No rural electric cooperatives are currently subject to FEECA.

FEECA also includes natural gas utilities whose annual retail sales volume is equal to or greater than 100 million therms. PGS is the only natural gas utility that meets the therm sales threshold for conservation goals under FEECA, and thus has its own DSM goals, which have been approved by the Commission.

The FEECA statute also allows the Commission to provide appropriate financial rewards and penalties to the utilities over which it has rate-setting authority. The Commission also has the authority 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 rewards or assessed penalties for any of the IOUs through FEECA. The Commission does not have rate-setting authority over JEA and OUC and therefore cannot assess financial penalties or provide financial rewards under FEECA.

Table 1 lists the seven electric FEECA utilities and shows their 2018 retail electricity sales and the percentage of total electricity sales by each utility. The table also includes the total energy sales for all non-FEECA utilities. Currently, the seven electric utilities that are subject to FEECA account for approximately 83.6 percent of all Florida energy sales.

**Table 1**  
**Energy Sales by Florida's FEECA Utilities in 2018**

Florida's FEECA Utilities	Energy Sales GWh	Percent of Total Energy Sales
Florida Power & Light Company	110,053	46.1%
Duke Energy Florida, LLC	39,145	16.4%
Tampa Electric Company	19,631	8.2%
JEA	12,326	5.2%
Gulf Power Company	11,132	4.7%
Orlando Utilities Commission	6,799	2.8%
Florida Public Utilities Company	635	0.3%
<b>FEECA Utilities' Total</b>	<b>199,721</b>	<b>83.6%</b>
Non-FEECA Utilities' Total	39,175	16.4%
<b>Total Statewide Energy Sales</b>	<b>238,896</b>	<b>100.0%</b>

Source: Commission's "Statistics of the Florida Electric Utility Industry" (Table 26) published in October 2019.

Sections 366.82(2) and 366.82(6), F.S., require the Commission to set demand-side management goals at least every five years for the utilities subject to FEECA. The Commission sets electric goals with respect to summer and winter electric-peak demand and annual energy savings over a ten-year period, with a re-evaluation every five years. Once goals are established, the FEECA utilities must submit DSM plans containing cost-effective programs intended to meet the goals for Commission approval.

In 2008, the Florida Legislature amended the FEECA statute, placing upon the Commission additional responsibilities when adopting conservation goals. These responsibilities included the consideration of the 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.

### **1.2 FEECA's Influence on the Florida Energy Market**

FEECA's mission is important to Florida's overall energy market. Florida's total electric consumption ranks among the highest in the country due to its sizeable population and climate-induced demand for cooling. When compared to the rest of the country, Florida's energy market is unique. The distinction is largely due to the state's climate, high proportion of residential customers, and the reliance on electricity for heating and cooling.

Florida is typically a summer-peaking state. On a typical summer day, the statewide demand for electricity can increase from approximately 18,000 MW to 34,000 MW over the span of hours.<sup>3</sup> Additionally, 87.6 percent of Florida's electricity customers are residential, consuming

<sup>3</sup>Electric IOU responses to Staff's First Data Request, re: 2018 Ten-Year Site Plan.



approximately 52.4 percent of the electrical energy produced. In contrast, nationally, residential customers account for only 38.5 percent of total electric sales, while commercial customers represent 36 percent of electric consumption and industrial customers represent 25 percent.<sup>4</sup> Table 2 shows the makeup of Florida's electric customers by class and consumption.

**Table 2**  
**Florida's Electric Customers by Class and Consumption in 2018**

Customer Class	Number of Customers	Percent of Customers	Energy Sales (GWh)	Percent of Sales
Residential	9,515,247	87.6%	125,089	52.4%
Commercial	1,163,721	10.7%	86,241	36.1%
Industrial	25,300	0.2%	20,782	8.7%
Other*	156,780	1.4%	6,784	2.8%
<b>Total</b>	<b>10,861,048</b>	<b>100.0%</b>	<b>238,896</b>	<b>100.0%</b>

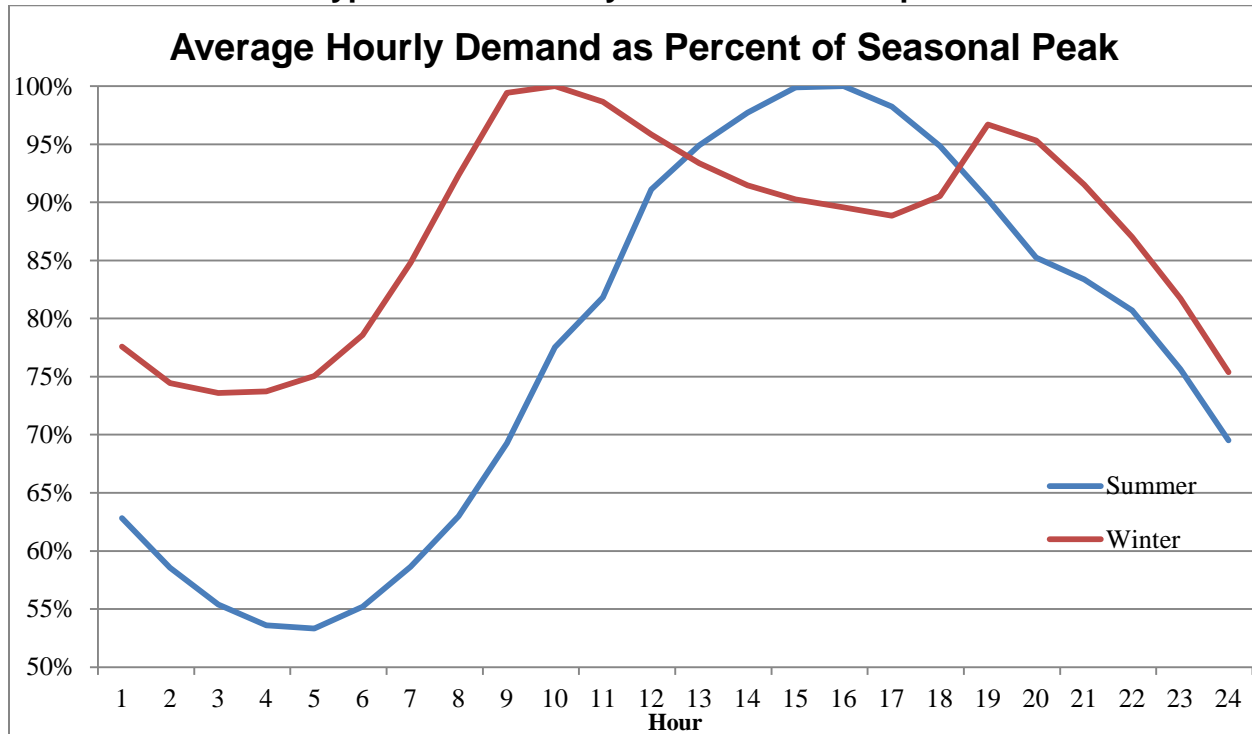
\*Street and highway lighting, sales to public authorities, and interdepartmental sales.

Source: Commission's "Statistics of the Florida Electric Utility Industry" (Tables 26 and 33) published in October 2019.

Figure 1 shows the daily electric load curves for a typical Florida summer and winter day. 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—which correspond to heating loads.

<sup>5</sup>Annual data for 2018. <http://www.eia.gov/electricity/data.cfm#sales> Retail sales of electricity to ultimate consumers, annual, by sector by provider.

**Figure 1**  
**Typical Florida Daily Electric Load Shapes**



Source: Electric IOU responses to Staff’s First Data Request, re: 2018 Ten-Year Site Plan.

Residential load patterns are rapidly shifting and have high peak-to-trough variation. In contrast, commercial or industrial loads demonstrate more consistency throughout the 24-hour day and experience fewer spikes in demand.

Utilities dispatch additional generating capacity throughout the day to follow the customer load patterns. Peaking generating units, which are dispatched during high peak demand periods of the day, are less fuel-efficient than baseload or intermediate generating units. Utility DSM programs play a role in reducing energy usage and shifting peak demand. Therefore, they reduce the need to dispatch relatively fuel-inefficient generating units.<sup>5</sup> Over time, the need for additional generating capacity has grown in Florida, in large part due to population growth. In addition to providing fuel savings at existing generating units, utility-sponsored DSM programs and conservation efforts by individual consumers can avoid or defer the need for new electric generating capacity.

Utility-sponsored DSM programs are funded by all ratepayers. Therefore, in order to meet FEECA requirements, the Commission and utilities must ensure that the DSM programs created to reap the benefits of reduced fuel usage and deferred generating capacity are cost-effective, i.e. less costly than generation. The Commission’s methodologies to determine the cost-effectiveness of demand-side management programs are explained in detail in Section 2.1.

<sup>5</sup>Electric generating units typically are categorized as baseload, intermediate, or peaking. Aside from planned and forced outages, baseload units are scheduled to operate continuously. Intermediate units generate power to follow load for periods of time, but are not planned to operate nonstop. Peaking units supplement baseload and intermediate power, operating during high-demand, or peak, periods.

FEECA has been successful in reducing the growth rates of weather-sensitive peak electric demand and conserving expensive fuel resources. Since its inception, FEECA utility-sponsored electric DSM programs have cumulatively saved 7,956 MW of summer peak demand and 7,349 MW of winter peak demand, referenced in Table 3. This reduction in peak demand has deferred the need for new generating capacity. In 2018, FEECA DSM programs saved 213 GWh, enough electricity to power approximately 15,806 homes for a year.<sup>6</sup> These energy savings have offset the use of existing generating units, resulting in fuel and variable operations and maintenance (O&M) cost savings.

**Table 3**  
**Estimated Cumulative DSM Savings Since 1980**

Type	Savings
Summer Peak Demand	7,956 MW
Winter Peak Demand	7,349 MW
Annual Energy Reduction	11,117 GWh

Source: Florida Reliability Coordinating Council Load and Resource Plan 2019, S-3, S-4, S-5.

Currently, the electric FEECA utilities provide 110 programs for residential, commercial, and industrial customers. Programs focus on either reducing energy use at a given moment, which shifts/reduces demand, or toward reducing overall energy consumption over a period of time. Utility-sponsored DSM programs are an important means of achieving demand and energy savings and these programs are designed to encourage customer conservation efforts.

Additionally, residential energy audits, required by Section 366.82(11), F.S., serve as an avenue to identify and evaluate conservation opportunities for customers and identify opportunities to implement many DSM and conservation programs. Energy audits also educate customers on behavioral changes and energy efficiency investments they can make outside of utility-sponsored DSM programs. During 2018, FEECA electric utilities performed 171,459 residential audits. Though FEECA does not require commercial energy audits, FEECA electric utilities also performed 10,527 commercial energy audits in 2018.

### **1.3 Recovery of Conservation Expenditures**

The IOUs are allowed by Commission Rule 25-17.015, Florida Administrative Code (F.A.C.), to recover reasonable expenses for DSM programs through the Energy Conservation Cost Recovery (ECCR) clause. Such expenses may include administrative costs, equipment, and incentive payments. Before attempting to recover costs through the ECCR clause, a utility must prove that its DSM programs are cost-effective. Utilities must have Commission approval for any new programs or program modifications prior to seeking cost recovery.

Commission Rule 25-17.015, F.A.C., also permits natural gas LDCs to seek recovery for costs related to Commission-approved conservation programs. While PGS is the only natural gas

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<sup>6</sup>Average Florida annual household kWh use is 13,476 kWh. Data from Forms EIA-861-schedules 4A-D, EIA-861S and EIA-861U. <https://www.eia.gov/tools/faqs/faq.php?id=97&t=3>

utility subject to FEECA, the other LDCs covered in this report offer Commission-approved DSM programs without a specific therm savings goal. Natural gas conservation programs have historically focused on providing rebates to residential customers that support the replacement of less efficient appliances with new, energy-efficient gas appliances. However, many LDCs have expanded their rebate programs to commercial customers.<sup>7</sup>

On an annual basis, the Commission conducts financial audits of these expenses for both the electric IOUs and LDCs. A full evidentiary hearing is held to determine the cost recovery factors to be applied to customer bills in the following year. The Commission-approved 2020 conservation cost recovery factors are discussed further in Section 4.

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<sup>7</sup>Order No. PSC-14-0039-PAA-EG, Docket No. 20130167-EG, In re: Petition for approval of natural gas energy conservation programs for commercial customers, by Associated Gas Distributors of Florida, issued January 14, 2014.

## Section 2. DSM Goalsetting

### 2.1 DSM Program Cost-Effectiveness and Energy Savings

Section 366.81, F.S., requires utility conservation programs to be cost-effective. This statutory requirement is codified in Rule 25-17.008, F.A.C., for electric utilities and Rule 25-17.009, F.A.C., for natural gas LDCs. The rules identify the cost-effectiveness methodologies to be used and require that utilities provide cost and benefit information to the Commission when requesting to add a program or make changes or additions to an existing program.

The Commission requires that electric utilities measure cost-effectiveness from three perspectives, at a minimum - the program participant, the utility's ratepayers, and society's overall cost for energy services. The Participants test, the Rate Impact Measure (RIM) test, and the Total Resource Cost (TRC) test capture these viewpoints. The electric FEECA utilities are required to provide the results of all three tests when seeking to add a new program or make changes to an existing program.

Similarly, Rule 25-17.009, F.A.C., requires natural gas LDCs to prove that their conservation programs are cost-effective by passing the Participants test and Gas Rate Impact Measure Test (GRIM). The GRIM test is a modified version of the RIM, specific to gas utilities. Natural gas LDCs are also required to provide the results of these tests when seeking to add a new program or modify an existing program. Table 4 summarizes the costs and benefits considered in the three Commission-approved cost-effectiveness methodologies.

**Table 4**  
**Summary of Electric Cost-Effectiveness Methodologies**

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

#### Participants Test

The Participants test analyzes costs and benefits from a program participant's point of view, rather than the impact on the utility and other ratepayers not participating in the program. The Participants test includes the up-front costs customers pay for equipment and costs to maintain this equipment. Benefits considered in the test include the incentives paid by utilities to the

customers and the 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.

### **Rate Impact Measure (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 participating customers and decreased revenues to the utility. DSM programs can reduce utility revenues due to reduced kWh sales and reduced demand. The decreased utility revenues typically are 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 rates would be without the DSM program.

### **Total Resource Cost (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 utility 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. Because incentives and foregone revenues are not treated as "costs", electric rates for all customers tend to be higher for programs implemented solely using the TRC test to judge cost-effectiveness.

### **Ensuring Cost-Effectiveness**

Ensuring utility-sponsored DSM programs remain cost-effective benefits the general body of electric ratepayers. These programs can reduce costs to ratepayers by postponing capital expenditures such as future power plant construction, and reducing current electrical generation costs, including fuel and variable O&M costs. DSM programs can also benefit customers by improving reliability.

When an IOU determines that a DSM program is no longer cost-effective, the utility must petition the Commission for modification or discontinuation of the program. In many instances, programs may need to be modified due to the adoption of a more stringent appliance efficiency standard or building code. In contrast, if new efficiency measures become available that are cost-effective, the utility may petition the Commission for approval of a new program.

### **2019 Electric DSM Goalsetting Proceeding**

Pursuant to Sections 366.82(2) and 366.82(6), F.S., the electric FEECA utilities filed proposed goals for the 2020-2029 period in April 2019. The utilities proposed goals that were lower overall than those established in the 2014 goalsetting proceeding, with some utilities proposing goals of zero or near-zero for the 10-year period. A technical hearing on the proposed goals was held on August 12 and 13, 2019. The Commission heard testimony on cost-effectiveness tests, whether a goal of zero fulfilled statutory requirements, how to account for free ridership, and how to ensure low-income customers are able to effectively participate in DSM programs.

By issuing Order No. PSC-2019-0509-FOF-EG<sup>8</sup> on November 26, 2019, the Commission rejected the goals proposed by the FEECA utilities and chose to continue with the 2020-2024 portion of the goals established in the 2014 goalsetting proceeding.<sup>9</sup> While the goalsetting process produces annual goals, the cumulative goals for the entire 10-year period are shown in Table 5 for illustrative purposes. The Commission also expressed a desire to review the goalsetting process for potential revisions, as may be appropriate, before the conclusion of the 2020-2024 period.

**Table 5**  
**Cumulative Commission-Approved Electric DSM Goals, 2015-2024**

<b>Electric Utility</b>	<b>Summer Demand Goals (MW)</b>	<b>Winter Demand Goals (MW)</b>	<b>Annual Energy Goals (GWh)</b>
FPL	526.1	324.2	526.3
DEF	259.1	419.3	195.0
TECO	56.3	78.3	144.3
Gulf	68.1	36.7	84.2
FPUC	1.3	0.4	2.0
OUC	5.0	8.4	13.0
JEA	10.8	9.7	25.8
<b>Total</b>	<b>926.7</b>	<b>877.0</b>	<b>990.6</b>

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

The goals established in 2014 were based upon estimated energy and demand savings from measures that passed both the RIM and Participants cost-effectiveness tests. Measures that pass the Participants test ensure that participating customers' benefits exceed the costs of the measure or program to the participant. Use of the RIM test minimizes subsidies between customers who participate in DSM programs and those who do not participate, but pay for program expenditures. The RIM test also ensures rates would remain the same or lower than otherwise would occur.

## **2.2 Summary of the 2019 Goalsetting Process for Peoples Gas**

PGS is the only natural gas utility that meets the therm sales threshold for establishing conservation goals under FEECA. In October 2018, PGS filed a petition for approval of numeric goals for the 2019-2028 period. PGS estimated its goals based upon its current Commission-approved DSM programs. Because PGS had existing programs already in place, there is expected to be no additional cost to its customers, aside from the new audit programs. PGS utilized the Participants and GRIM tests to calculate its goals.<sup>10</sup> The Commission approved the goals for PGS in Order No. PSC-2019-0361-PAA-GU, issued in August 2019. Table 6 shows the 10-year therm-savings goals for PGS over the 2019-2028 period.

<sup>8</sup>Order No. PSC-2019-0509-FOF-EG, Docket Nos. 20190015-EG through 20190021-EG, In re: Commission review of numeric conservation goals, issued November 26, 2019.

<sup>9</sup>Within 90 days of the issuance of the Order, the electric FEECA Utilities shall file individual DSM plans designed to meet their approved goals.

<sup>10</sup>Rule 25-17.009, F.A.C., requires natural gas conservation programs to pass the Participants test and the GRIM test in order to prove cost-effectiveness.

**Table 6**  
**Commission-Approved DSM Goals for PGS, 2019-2028**

<b>Cumulative Savings, in Therms</b>		
<b>Residential</b>	<b>Small-Commercial</b>	<b>Combined</b>
3,749,583	2,426,634	6,176,217

Source: Order No. PSC-2019-0361-PAA-GU.

PGS was also required to develop a residential audit program as part of the goalsetting process. However, PGS filed for and was granted a waiver of Rules 25-17.003(3)(a) and (b), F.A.C., which requires all FEECA utilities to offer residential customers three different types of on-site audits - Building Energy Efficiency Rating System (BERS) Audits, Computer-Assisted Audits, and Walk-Through Audits. PGS argued that the on-site audits would impose a substantial hardship on the Company and that the purpose of the underlying statute can be achieved by other means. The Commission allowed PGS to offer an electronic, online-only audit in lieu of on-site audits for residential customers. The Commission approved the implementation of the electronic audits for PGS’s residential customers, as well as on-site audits for its commercial customers, beginning in 2020. Customers of PGS are still eligible to receive walk-through energy audits through their electricity provider.

### ***2.3 Impact of Outside Factors on FEECA Utility DSM Programs***

Conservation in Florida is prompted by customer actions to conserve energy, federal appliance efficiency standards and state building codes, and utility-sponsored DSM programs. Customers can save energy and reduce their bills through behavioral changes and by investing in energy efficient homes, appliances, and equipment. Federal appliance efficiency standards have become more stringent over time, thus increasing the baseline energy efficiency of new appliances and heating and air conditioning equipment available to Florida’s consumers. Likewise, changes in the Florida State Building Code (FLBC) have resulted in more energy efficient new and renovated homes.

Utilities design DSM programs to encourage conservation that exceeds levels set by current building codes and minimum efficiency standards. More stringent efficiency standards and building codes, as well as customer actions to implement efficiency outside of utility programs, reduce the potential incremental demand and energy savings available from utility-sponsored DSM programs.

Federal efficiency standards and state building codes establish a baseline in assessing the cost-effectiveness of a potential DSM program. Currently, Florida utility DSM programs offer rebates and incentives for appliances that exceed federally established minimum efficiency standards. However, increases in federal efficiency standards, independent conservation efforts by consumers, and general conservation practices make it more challenging for utilities to achieve demand and energy savings through DSM programs. Moreover, participation rates in the utility programs are driven by the anticipated payback to the participating customer. While utility incentives tend to increase customers’ “take rate” in conservation programs, electric rates are also a contributing factor in customers’ decisions to invest in more efficient appliances. Thus, low or declining electric prices tend to reduce customer energy efficiency investments. This



makes it crucial that the FEECA utilities frequently evaluate conservation programs to ensure that they remain cost-effective.

The cost-effectiveness of DSM measures has declined due to several factors outside of the FEECA utilities' control. First, new federal efficiency standards and state building codes have become more stringent over time. These higher standards and codes decrease the number of cost-effective DSM measures that can be offered by the electric utilities. Second, natural gas is the primary fuel source for electricity generation in Florida. The average price of natural gas fell from \$8.86/MMBtu in 2008 to \$3.73/MMBtu in 2013, the most recent full year before the Commission established the 2015-2024 DSM goals.<sup>11</sup> In turn, lower natural gas prices reduced utility avoided costs, making fewer programs pass cost-effectiveness testing.<sup>12</sup> Lower fuel prices can also impact customer participation in utility-sponsored DSM programs due to reduced monthly electric bills. As a result, customers could have less of an incentive to implement energy efficiency measures.

### **State Building Code**

At the state level, the FLBC is amended annually to incorporate interpretations and clarifications as well as to update efficiency standards. The Florida Building Commission updates the FLBC with relevant new standards every three years. In 2017, the FLBC was updated and became effective in December 2017. After review of the updated FLBC and the existing DSM programs, it was found that there was no impact on the programs established as a result of the 2014 goalsetting proceeding.

### **Federal Government Standards**

At the federal government level, the U.S. Department of Energy's (DOE) Building Technologies Office establishes minimum energy efficiency standards for more than 60 categories of appliances and other equipment, including HVAC equipment.<sup>13</sup> According to DOE, "Products covered by standards represent about 90 percent of home energy use, 60 percent of commercial building use, and 30 percent of industrial energy use."<sup>14</sup> From December 2018 to July 2019, DOE completed 22 rulemaking actions. During this period, the agency also completed 3 final rules, addressing two Conservation Standards and one Test Procedure.

DOE's three completed final rules from December 2018 through July 2019 included the following:

#### Conservation Standards

- External Power Supplies
- Ceiling Fan Light Kits

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<sup>11</sup>EIA Henry Hub Natural Gas Spot Price Annual Average <https://www.eia.gov/dnav/ng/hist/rngwhhdD.htm>

<sup>12</sup>Current gas prices have remained low at \$2.24/MMBtu as of August 28, 2019.  
<https://www.eia.gov/naturalgas/weekly/>

<sup>13</sup>Pursuant to Section 553.975, F.S., the Commission must report the effectiveness of state energy conservation standards established by Sections 553.951-553.973, F.S. Florida's appliance efficiency standards are mandatory efficiency improvements but have not been updated since 1993, and therefore have likely been superseded by more recent federal efficiency standards.

<sup>14</sup><http://energy.gov/eere/buildings/appliance-and-equipment-standards-program>

## Test Procedures

- LED Lamps

The DOE also has 127 pending Energy Conservation Standards and Test Procedures being considered or in development. Some of the products being considered for Conservation Standards and Test Procedures include:

- Commercial Water Heaters
- Clothes Dryers
- Consumer Cooking Products
- Microwave Ovens
- Television Sets

Further details can be found on the DOE Office of Energy Efficiency and Renewable Energy's buildings reports website at <http://energy.gov/eere/buildings/reports-and-publications>.

Federal standards that change the baseline requirements for a product may have a direct effect on DSM programs. If a federal standard change occurs, the utilities must file petitions modifying the associated program to account for the new established baseline.

## **Section 3. Electric FEECA Utilities' Goal Achievements**

### **3.1 Assessing Goal Achievement**

Commission rules require separate goals be set for electric 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.

Each FEECA utility must file an annual DSM report pursuant to Rule 25-17.0021, F.A.C., which summarizes demand savings, energy savings, and customer participation rates for each approved program. The report also includes the residential, C/I, and total energy efficiency achievements compared to the approved DSM goals. Each of the FEECA utility's 2018 DSM annual reports and prior year reports can be found on the Commission's website: <http://www.floridapsc.com/>. Therm-savings goals for PGS were first approved in August 2019, so its goal achievements will be recorded in next year's FEECA Report.

Monitoring annual goal achievements enables the Commission to evaluate the effectiveness of each utility's programs. In addition to reviewing the FEECA utilities' annual DSM reports, staff may request additional information from the utilities on their demand and energy saving achievements. Staff's data requests can, for example, seek explanations of factors preventing the utilities from achieving projected participation levels. Each electric FEECA utility's DSM performance in 2018 is discussed below. The utility achievements have been compared to the annual goals established by the Commission in November 2014. Table 7 provides a breakdown of each utility's goal achievements for the period.

#### **FPL**

FPL met its 2018 total goals and all individual demand goals. However, it achieved 95 percent of its total Residential energy savings goal. The Company cited changes in the air conditioning marketplace for the lack of residential savings.

#### **DEF**

DEF met its 2018 total goals and all individual customer class goals.

#### **TECO**

TECO met its 2018 total goals and all individual customer class goals.

#### **Gulf**

Gulf was unable to achieve any of its 2018 goals. Gulf cited impacts from Hurricane Michael, which made landfall in the Eastern portion of the Company's service territory in October 2018, for the lack of participation in many of its programs.

## FPUC

FPUC met all of its 2018 total and residential goals; however, it did not meet its C/I Winter demand or energy savings goals. The Company cited a lack of C/I customers for its shortage of savings in that category.

**Table 7**  
**DSM Goals Compared to Annual (2018) Achievements**

Utility	Winter (MW)		Summer (MW)		Annual (GWh)	
	Goals	Achieved Reduction	Goals	Achieved Reduction	Goals	Achieved Reduction
<b>FPL*</b>						
Residential	16.2	17.5	26.2	26.5	23.5	<b>22.4</b>
Commercial/Industrial	15.3	35.4	25.3	55.9	26.0	63.5
Total	31.5	52.9	51.5	82.4	49.5	85.9
<b>DEF</b>						
Residential	43.0	45.0	20.0	26.0	17.0	43.0
Commercial/Industrial	6.0	43.0	10.0	60.0	10.0	39.0
Total	48.0	88.0	30.0	86.0	27.0	83.0
<b>TECO</b>						
Residential	6.5	8.0	2.7	5.6	6.1	17.1
Commercial/Industrial	1.7	13.0	3.3	15.0	9.2	33.7
Total	8.2	21.0	6.0	20.5	15.3	50.8
<b>Gulf</b>						
Residential	2.90	<b>1.96</b>	5.00	<b>2.38</b>	5.10	<b>4.68</b>
Commercial/Industrial	0.20	<b>0.01</b>	0.60	<b>0.26</b>	1.80	<b>0.56</b>
Total	3.10	<b>1.97</b>	5.60	<b>2.64</b>	6.90	<b>5.24</b>
<b>FPUC</b>						
Residential	0.02	0.23	0.07	0.40	0.05	0.77
Commercial/Industrial	0.02	<b>0.00</b>	0.04	0.04	0.12	<b>0.11</b>
Total	0.04	0.23	0.11	0.44	0.16	0.88
<b>JEA</b>						
Residential	0.96	2.02	0.94	3.01	2.50	6.90
Commercial/Industrial	0.01	0.02	0.14	0.96	0.08	2.67
Total	0.97	2.04	1.08	3.97	2.58	9.60
<b>OUC</b>						
Residential	0.16	0.27	0.16	0.38	0.60	0.76
Commercial/Industrial	0.70	2.76	0.36	2.82	0.75	23.40
Total	0.86	3.03	0.52	3.20	1.35	24.16

\*Bold numbers indicate the utility did not meet its annual goals within that category.

Source: FEECA utility demand-side management annual reports.

## JEA

JEA met its 2018 total goals and all individual customer class goals.

## **OUC**

OUC met its 2018 total goals and all individual customer class goals.

### **3.2 Low-Income Programs**

The 2014 DSM Goals Order<sup>15</sup> states, “When the FEECA utilities file their DSM implementation plans, each plan should address how the utilities will assist and educate their low-income customers, specifically with respect to the measures with a two-year or less payback.”<sup>16</sup> In accordance with this order, each FEECA utility has implemented programs within its DSM plan that address low-income conservation. Low-income customer participation in energy conservation programs furthers the intent of FEECA by encouraging potential demand and energy reduction in the State of Florida. Customers that participate in these programs benefit through increased knowledge of conservation opportunities and through rebates on energy saving equipment, resulting in potential bill reduction.

Low-income programs mainly focus on efforts to provide energy efficiency information, weatherization opportunities and the installation of energy efficient measures to residential homes. In many cases, the utilities have established partnerships with government and non-profit agencies. They work together to help identify low-income neighborhoods and distribute information and educate customers on conservation opportunities through energy audits, bill inserts, presentations, and other measures.

All of the FEECA utilities submitted programs in 2015 in their DSM plans highlighting how they reach and encourage qualifying customers. Each FEECA utility’s conservation efforts with respect to low-income customers during 2018 are discussed below.

#### **FPL**

FPL states that its energy audit, the Residential Energy Survey, is available to all customers and is a way to identify energy-saving opportunities at no cost to the customer. In 2017, FPL continued to enhance the Energy Retrofit sector of its Residential Low-Income Program. Changes included proactive outreach to customers in designated low-income zip codes to offer retrofit services. It also allowed Field Service Representatives the ability to perform retrofits in designated low-income zip codes during energy surveys. These enhancements helped the program more than double the participation results in 2017 and this level of participation was sustained in 2018.

#### **DEF**

DEF offers information to its customers about energy conservation programs through bill inserts, the Company’s website, and community outreach efforts. In 2017, DEF filed a request for modifications to eligibility requirements for the Low-Income Weatherization Assistance Program. The modifications helped align the program’s eligibility criteria with the organizations and agencies that provide weatherization assistance. These changes were approved by the Commission in April 2017. In 2018, the program manager met with agencies that perform work

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<sup>15</sup>The 2014 DSM Goals Order references electric utilities only.

<sup>16</sup>Order No. PSC-14-0696-FOF-EU, Docket Nos. 20130199-EI through 20130205-EI, In re: Commission review of numeric conservation goals, issued December 16, 2014.

for low-income housing to ensure that they were aware of the program offerings for low-income customers. DEF also modified its low-income program to begin providing program participants with eight light-emitting diode bulbs instead of five compact fluorescent lamps.

### **TECO**

TECO utilizes a multi-pronged approach of communication and education to reach out to low-income customers. TECO performs door-to-door advertising, participates in local community events and fairs, and works with Senior Outreach and Elder Affairs Centers to promote, educate, and advise on energy efficiency. In 2017, TECO added several new communication avenues, largely in social media, to assist in creating awareness of the Company's conservation programs. In 2018, TECO continued to grow its customer awareness by focusing on increasing participation in energy education and awareness events.

### **Gulf**

Gulf specifically targets lower-income neighborhoods with the Commission-approved Community Energy Saver program. Through this program, a specific geographical area is identified wherein utility representatives canvas the neighborhood to promote the program and schedule customers' participation. The representatives provide basic energy conservation recommendations as well as installation of conservation measures, including energy-efficient light bulbs, low-flow showerheads, and other energy efficiency products. Gulf has also partnered with the Salvation Army to provide an instructor-led energy education session as part of the agency's financial literacy training for clients. The partnership has provided an additional avenue for Gulf to access customers who are in the most need of assistance in 2018.

### **FPUC**

FPUC continues to ensure that low-income customers are aware of and have access to conservation programs. Offerings include home energy audits, contractor training, and educational materials for low-income customers. FPUC took a more direct approach in 2018, holding events in both its Northeast and Northwest markets at low-income housing projects and senior centers. FPUC reported 112 participants to the events, where the Company served lunch, gave an energy education presentation, and distributed blankets to all participants.

### **JEA**

JEA maintains its focus on low-income customers through its Neighborhood Energy Efficiency Program. This program provides the installation of conservation products and provides energy education packets that give customers energy-saving ideas and information about JEA's other DSM programs, as well as community conservation programs. JEA also provides speakers from its Ambassador Team to give a "Savings Without Sacrifice" presentation to neighborhood associations, churches, schools, community development groups, and other organizations in low-income neighborhoods. In 2018, JEA held meal events with pastors and leaders of advocacy groups to keep these leaders aware of utility programs, changes, and resources.

### **OUC**

In the fall of 2018, OUC initiated a series of "Fall Into Savings" neighborhood meetings within its service territory to share tips and programs available to help customers save on their utility bills. More than 400 customers attended and as a result, OUC was able to schedule 118 audits

and performed efficiency upgrades on 23 premises. Also in 2018, OUC partnered with the Village of Orlando and Hope Church to revamp a low-income housing complex, which now has LED lighting, energy-efficient appliances, solar arrays, and other energy-efficient technologies. OUC continued with its Project Care program, which assists customers in paying their energy bills and implementing energy efficiency measures. The Company donates \$2 for every \$1 donated to the program. OUC also continued to attend community events, disseminate information on its conservation programs, and distribute conservation kits.

### **3.3 Investor-Owned Utility Research and Development Programs**

In addition to specific DSM programs that provide measurable demand and energy savings, the five electric IOUs conduct conservation research and development initiatives to evaluate emerging DSM opportunities. In these programs, Florida's electric IOUs often partner with universities or established industry research organizations. With the constant arrival of new electricity-consuming products and new technologies, research and development by Florida's IOUs creates a unique opportunity to identify emergent opportunities to conserve electricity. The recent initiatives undertaken by the electric IOUs are discussed below.

#### **FPL**

In 2018, FPL continued its evaluation of next generation load management software and hardware technologies. FPL also participates in relevant co-funded projects through the DOE and national organizations such as Electric Power Research Institute (EPRI). This co-funding enables FPL to participate in larger research projects and gain their insights at a fraction of the total cost. In 2018, FPL continued its participation in EPRI's ongoing readiness assessment of multiple technologies in various stages of development which enables comparisons among these technologies. These projects are ongoing and therefore did not produce any final reports in 2018.

#### **DEF**

DEF continued its research on CTA-2045 Technology, a port that enables connected appliances to receive and execute commands and its potential for energy conservation programs. DEF completed a project in partnership with the University of South Florida, testing integrated advanced control algorithms for commercial buildings and the benefits of energy storage technologies for renewable energy sources. DEF also completed projects on Variable-Speed Heat Pumps and a PV system integrated with energy storage, which demonstrated solar smoothing and solar shifting. The Company continued to work on numerous other projects, including customer-sited PV with energy storage, the use of customer demand response to compensate for variable loads and intermittent renewable generation, Energy Management Circuit Breakers, and cloud communications to control variable-capacity heat pumps. DEF's new projects for 2018 included one to gather data on how customers charge their EVs.

#### **TECO**

TECO's Research and Development Program explores potential areas to benefit from energy conservation. TECO completed its battery research study in 2018, the initial stage of its Small to Mid-Size Commercial Battery Storage project. The Company is waiting for product costs to drop to an acceptable level to continue with the project. TECO completed measurement and

verification on its Commercial Low-Income Weatherization in late 2018, concluding that the program, as tested, would not be advantageous at this time.

The Company is also exploring several other research and development projects. It is looking into using large commercial electric vehicle lithium-ion batteries to export power to the Company's grid during peak times, a Commercial small to mid-sized business Online Energy Audit, Home Energy Management Systems, and including Heat Pump Water Heaters in its Energy Planner Program.

TECO's EV Education Program is making progress. Schools have been chosen, educational materials have been developed, an EV charger has been installed, and an agreement to lease the vehicle has been reached by the school board. Full classroom deployment of the program was achieved during the 2019-2020 school year.

### **Gulf**

Gulf completed two projects that revolve around the Tesla Powerwall, a rechargeable energy storage product designed for home use. The Tesla Powerwall Demand Response project investigates the ability of the Powerwall to improve the effectiveness of current DSM programs, specifically its impact on load-shifting and peak reduction. The Tesla Powerwall Demand Photovoltaic Project evaluates the impact of solar shifting and solar smoothing, and how battery storage may be able to overcome the typical shortcomings of grid-tied solar photovoltaics. Other projects completed include the Domestic Hot Water Analysis and the Eaton Smart Breaker Test.

### **FPUC**

In 2018, FPUC continued its Distributed Battery Technology Pilot program. This research explores the impacts battery technology has on FPUC's electrical system and how this may provide future benefits to customers. FPUC installed the first battery storage system under the project in November of 2018, which was 12 kW. The second and third systems were installed in 2019.



## Section 4. Conservation Cost Recovery

IOUs are allowed, by statute, to recover reasonable expenses for Commission-approved DSM programs through cost recovery clauses. For electric IOUs, the recovery mechanism is the ECCR clause. For natural gas LDCs, the recovery mechanism is the Natural Gas Conservation Cost Recovery (NGCCR) clause. These clauses include expenses such as administrative costs, equipment, and incentive payments. Before requesting recovery of costs through the ECCR clause, a utility must prove that its DSM programs are cost-effective and benefit the general body of ratepayers. The Commission conducts an audit each year prior to approving cost recovery of these expenses.

### 4.1 Electric IOU Cost Recovery

From 2009 through 2014, electric utility expenditures to fund conservation programs grew due to additions and modifications of these programs. However, costs recovered from customers through the ECCR clause have declined for most IOUs, due to DSM program modifications designed to meet the Commission's 2014 goals. Table 8 shows the annual DSM expenditures recovered by Florida's IOUs from 2009-2018.

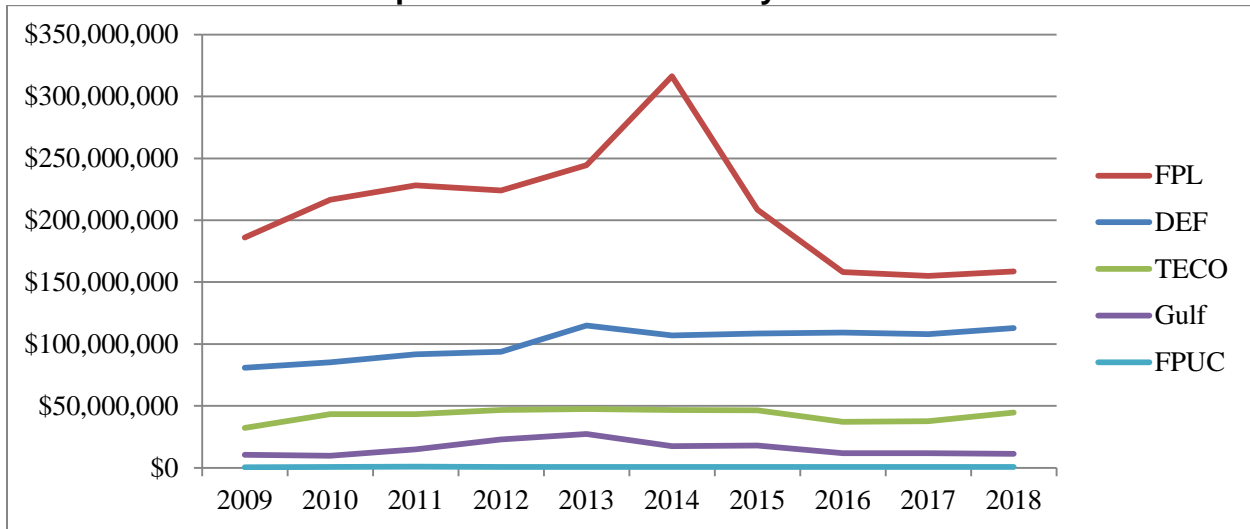
**Table 8**  
**DSM Expenditures Recovered by Electric IOUs**

	<b>FPL</b>	<b>DEF</b>	<b>TECO</b>	<b>Gulf</b>	<b>FPUC</b>	<b>Total</b>
2009	\$186,051,381	\$80,954,071	\$32,243,315	\$10,576,197	\$540,433	\$310,365,397
2010	\$216,568,331	\$85,354,924	\$43,371,442	\$9,859,407	\$693,331	\$355,847,435
2011	\$228,293,640	\$91,738,039	\$43,349,092	\$15,003,596	\$954,297	\$379,338,664
2012	\$224,033,738	\$93,728,110	\$46,593,831	\$22,885,826	\$695,235	\$387,936,740
2013	\$244,443,534	\$115,035,455	\$47,502,652	\$27,431,962	\$806,698	\$435,220,301
2014	\$316,311,166	\$107,033,335	\$46,620,508	\$17,412,618	\$772,612	\$488,150,239
2015	\$208,643,788	\$108,455,141	\$46,516,401	\$17,961,885	\$718,616	\$382,295,831
2016	\$158,174,787	\$109,155,438	\$37,242,148	\$11,915,459	\$687,590	\$317,175,422
2017	\$154,916,595	\$107,890,962	\$37,585,598	\$11,854,558	\$640,996	\$312,888,709
2018	\$158,735,829	\$112,863,333	\$44,558,717	\$11,399,250	\$656,154	\$328,213,283
<b>Total</b>						<b>\$3,697,432,021</b>

Source: Docket Nos. 20100002-EG through 20190002-EG, Schedules CT-2 from the IOUs' May testimonies.

Figure 2 shows the trends in annual DSM expenditures for the five electric IOUs from 2009 to 2018.

**Figure 2  
DSM Expenditures Recovered by Electric IOUs**



Source: Docket Nos. 20100002-EG through 20190002-EG, Schedules CT-2 from the IOUs' May testimony.

\*FPL's 2014 recovery included a one-time \$56.3 million capacity payment to Solid Waste Authority of Palm Beach County.

During the annual ECCR clause proceedings, the Commission approves the energy conservation cost recovery factors, by customer class, which each utility will apply to the energy and demand portions of customer bills. These factors are set using each IOU's estimated conservation costs for the next year and reconciliation for any actual conservation cost over- or under-recovery associated with the current and prior years.

In November 2019, the Commission set the ECCR factors for the 2020 billing cycle. Table 9 illustrates the approved conservation cost recovery factors and the monthly bill impact for a residential customer. For illustrative purposes, these factors are applied to a typical monthly residential bill based on a 1,000 kilowatt-hour (kWh) per month energy usage.

**Table 9  
Residential Energy Conservation Cost Recovery Factors in 2020**

Utility*	ECCR Factor (cents per kWh)	Monthly Bill Impact (Based on 1,000 kWh)
FPL	0.139	\$1.39
DEF	0.339	\$3.39
TECO	0.232	\$2.32
Gulf	0.060	\$0.60
FPUC	0.132	\$1.32

\*While JEA and OUC fall under the FEECA Statute, the Commission does not regulate electric rates for municipal utilities.

Source: Order No. PSC-2019-0504-FOF-EG, Docket No. 20190002-EG.

## 4.2 Natural Gas Cost Recovery

Commission Rule 25-17.015, F.A.C., allows for recovery of costs attributed to natural gas conservation programs. While PGS is the only natural gas utility subject to FEECA, the other LDCs covered in this section offer Commission-approved DSM programs without a specific therm savings goal. As it does for the electric IOUs, the Commission also audits the LDCs' conservation expenditures on a yearly basis and adjusts the LDCs' cost recovery factors to allow for recovery of actual and projected program-related costs. Table 10 shows the amount each LDC recovered in natural gas conservation program expenditures from 2009-2018.

**Table 10**  
**DSM Expenditures Recovered by LDCs**

	Peoples Gas System	Florida City Gas	Florida Public Utilities	Chesapeake Utilities	Indiantown Gas Company	St. Joe Natural Gas	Sebring Gas System	Total
2009	\$5,880,890	\$2,254,121	\$1,702,041	\$710,850	\$21,682	\$137,675	\$11,926	\$10,719,185
2010	\$5,721,003	\$3,404,142	\$2,084,724	\$627,734	\$8,733	\$170,374	\$37,283	\$12,053,993
2011	\$6,906,668	\$3,573,513	\$3,163,050	\$755,779	\$11,357	\$106,300	\$34,640	\$14,551,307
2012	\$7,314,940	\$3,743,811	\$2,655,654	\$806,747	\$5,238	\$102,425	\$25,090	\$14,653,905
2013	\$9,432,551	\$4,342,603	\$2,935,140	\$742,412	\$10,222	\$96,575	\$53,967	\$17,613,470
2014	\$11,229,211	\$5,343,191	\$3,844,386			\$128,000	\$58,382	\$20,603,170
2015	\$12,335,245	\$5,240,383	\$6,768,175			\$123,400	\$33,563	\$24,500,766
2016	\$13,345,716	\$5,037,863	\$5,098,245	*	*	\$156,250	\$36,801	\$23,674,875
2017	\$14,543,555	\$5,149,573	\$4,617,501			\$144,900	\$42,237	\$24,497,766
2018	\$18,605,532	\$5,067,917	\$4,562,021			\$190,625	\$47,126	\$28,473,221
<b>Total</b>								<b>\$191,341,658</b>

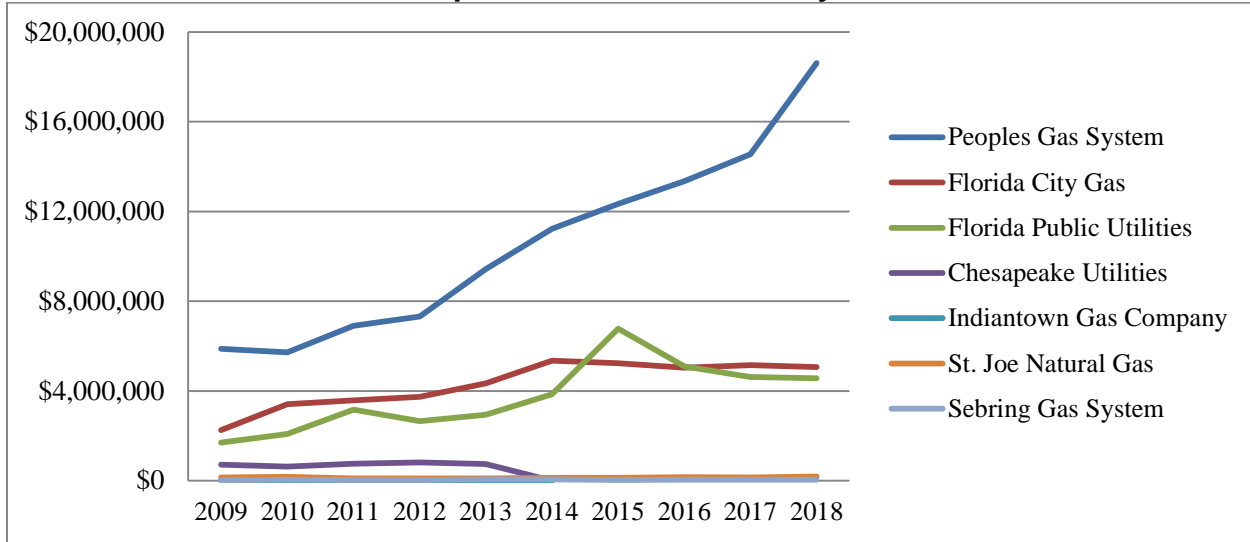
Source: Docket Nos. 20100004-GU through 20190004-GU, Schedules CT-2 from LDCs' May testimony.

\*Spending combined with Florida Public Utilities Company.

Figure 3 shows the trends in annual conservation expenditures for all LDCs from 2009 to 2018. In 2013, the Commission approved the LDCs' Commercial Conservation programs, resulting in additional overall conservation expenditures.<sup>17</sup>

<sup>17</sup>Order No. PSC-14-0039-PAA-EG, Docket No. 20130167-EG, In re: Petition for approval of natural gas energy conservation programs for commercial customers, by Associated Gas Distributors of Florida, issued January 14, 2014.

**Figure 3  
DSM Expenditures Recovered by LDCs**



Source: Docket Nos. 20100004-EG through 20190004-EG, Schedules CT-2 from the LDCs' May testimony.

In November 2019, the Commission set the natural gas LDC conservation cost recovery factors for the 2020 billing cycle. Table 11 provides the LDCs' conservation cost recovery factors for 2020 and the impact on a typical residential customer's bill using 20 therms of natural gas per month.

**Table 11  
Residential Natural Gas Conservation Cost Recovery Factors in 2020**

Utility	Cost Recovery Factor (Cents per Therm)	Monthly Bill Impact (Based on 20 Therms)
Peoples Gas System	10.948	\$2.19
Florida City Gas	25.062	\$5.01
Florida Public Utilities	10.281	\$2.06
Chesapeake Utilities	17.125	\$3.43
Indiantown Gas Company	10.118	\$2.02
St. Joe Natural Gas	46.887	\$9.38
Sebring Gas System	19.137	\$3.83

Source: Order No. PSC-2019-0499-FOF-GU, Docket 20190004-GU.

## **Section 5. Educating Florida’s Consumers on Conservation**

### **5.1 Commission Consumer Education Outreach**

While the Commission 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 platforms to share conservation information, including the Commission website, public events, brochures, press releases, E-Newsletters, and Twitter. Conservation information is also available through other governmental and utility websites. Section 5.2 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 October 2018 through September 2019.

#### **Triple E Award**

Each quarter, the Commission recognizes a small business for implementing Commission-approved, cost-effective conservation programs. Covering the state’s five major geographic areas, the Commission presents 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. Triple E Award recipients receive an award plaque; are featured under Hot Topics on the homepage, [www.FloridaPSC.com](http://www.FloridaPSC.com); and are highlighted in a statewide press release, tweeted @floridapsc, and archived on the website.

#### **Website Outreach Resources**

An assortment of information is available on the Commission website to help consumers save energy. According to Google Analytics, website page views for October 1, 2018 through September 2, 2019 totaled over 1.1 million. Requests to use the Commission’s Conservation House, highlighted on its homepage, have come from across the U.S. and also overseas. Its interactive design illustrates energy saving strategies for both inside and outside the home. “Find Your Utility” and “Lifeline Assistance” were among the most popular FPSC Consumer Assistance pages.

The Commission also offers several energy conservation brochures to help consumers save energy. Brochures may be viewed and printed directly from the website, [FloridaPSC.com/publications](http://FloridaPSC.com/publications), ordered online, or requested by mail or phone. Each year, the FPSC receives thousands of brochure requests.

#### **Newsletters**

The Commission’s quarterly *Consumer Connection E-Newsletter* features current energy and water conservation topics, consumer tips, and general Commission information. Consumer tips highlighted through video and text during the reporting period include *FPSC Imagines A Day Without Water*, *Conservation Rocks*, and *Fix A Leak Week*. The *Consumer Connection E-Newsletter* is available under Consumer Corner on the Commission’s homepage and distributed to consumers via Twitter and by subscribing to the free newsletter [online](#).

### **National Consumer Protection Week**

National Consumer Protection Week (NCPW), highlighting consumer protection and education efforts, was instrumental to the Commission's 2019 conservation education efforts. Chairman Art Graham recognized the 21<sup>st</sup> Annual NCPW (March 3-9, 2019) with the importance of education and awareness about utility services and about avoiding scams. The Commission keeps consumers informed year-round through outreach awareness and education events, free resources, and hearings, meetings and workshops. Also during the week, the Commission made presentations to consumers statewide showing them how to save money through energy and water conservation and how to avoid scams.

### **Older Americans Month**

Each May, the Commission participates in Older Americans Month, a national project to honor and recognize older Americans for their contributions to families, communities, and society. "*Connect, Create, Contribute*" was this year's theme, and the Commission hosted educational sessions on ways to conserve energy and water, and on strategies to prevent becoming a victim of fraud at senior communities in Duval, Holmes, Charlotte, Sarasota, Leon, Palm Beach, Lake, Orange, Hillsborough, and Brevard Counties. The Commission also distributed brochures and publications at the Jacksonville Expo, during the month.

### **Energy Awareness Month**

Each October, the U.S. Department of Energy (DOE) sponsors National Energy Awareness Month to promote smart energy choices and highlight economic and job growth, environmental protection, and increased energy independence. To highlight Energy Awareness Month 2018, the Commission partnered with Tallahassee's DeSoto Trail Elementary School fourth graders for a *Conservation Rocks* project. After a presentation from the FPSC's Executive Director Braulio Baez, the students painted rocks with conservation themes. More than 100 Conservation Rocks were placed throughout Florida. FPSC and DeSoto Trail Twitter handles were placed on the rocks' undersides, so the artistic conservation messages reached social media, too.

### **Community Events**

FPSC Commissioners are active in communities around the state and regularly present energy conservation information to students at area schools, to seniors and low-income residents at local community centers, and to county and city businesses at meetings or other events.

Through ongoing partnerships with governmental entities, consumer groups, and many other service organizations, the Commission regularly distributes energy and water conservation materials. The Commission also actively seeks new community events, venues, and opportunities where conservation materials can be distributed and discussed with consumers. Events where conservation information was shared during October 2018 through September 2019 include:

- Senior Day at the Capitol
- 20<sup>th</sup> Active Living Expo
- Jacksonville Senior Expo
- Florida Department of Agriculture and Consumer Services' Consumer Protection Fair – L. Claudia Allen Senior Center
- Chaires 15<sup>th</sup> Anniversary Celebration
- Renaissance Senior Center

- Marks Street Senior Center
- Lunch and Learn – Ft. Braden Community Center (2)
- Lunch and Learn – Miccosukee Community Center (2)
- Lunch and Learn – Bradfordville Community Center (2)
- Lunch and Learn – Woodville Community Center
- Lunch and Learn – Chaires Community Center
- Senior Citizens Council of Madison County
- 36<sup>th</sup> Annual Florida Children’s Day - Florida Museum of History
- Suwannee River Economic Council
- Groveland Senior Center
- Clermont Arts and Recreation Center
- Polk City Activity Center
- Lakeland Activity Center for Seniors
- Advent Christian Village Health and Wellness Fair – Suwannee County
- Washington Council on Aging – 2019 Senior Citizen Expo
- Friendship Senior Center – Venice
- Friendship Senior Center – Sarasota
- Ormond Beach Senior Activity Center & Neighborhood Dining Site
- North County Senior Center – Palm Beach Gardens
- Mid County Senior Center – Palm Springs
- Town N’ Country Senior Center
- Lutz Senior Center
- Titusville Adult Social Center
- Martin Anderson Senior Center
- Lake Mary Senior Center
- 2019 Elder Abuse and Fraud Prevention Summit
- Hamilton County Senior Service Center
- Union Congregational Church – Tavares
- One Senior Place – Altamonte Springs
- Milton Community Center
- Edgar Johnson Senior Center
- Clay County Senior Services of Aging True
- George Wickline Senior Center
- Eagle Lake Senior Center
- NU-HOPE Elder Care Services, Inc.
- Marion Café
- Belleview Church of Christ

### **Hearings and Customer Meetings**

As an ongoing outreach initiative, the Commission supplies conservation brochures to consumers at Commission hearings and customer meetings across the state. From October 2018 through September 2019, Commission staff distributed information and addressed consumer questions at 10 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 Campaign**

Each August, the Commission provides educational packets, including conservation materials, to Florida public libraries across the state for consumer distribution. The Commission's Library Outreach Campaign reached 622 state public libraries and branches in 2019. To reduce mailing and production costs, the Commission sent the materials via a CD that included a print-ready copy of brochures for easy reproduction. Following the Campaign, many libraries' requests for additional publications are filled.

## **Media Outreach**

News releases are posted to the website and distributed via email and Twitter on major Commission decisions, meetings, and public events. The Office of Consumer Assistance & Outreach also issues news releases urging conservation. For instance, in March, the Commission highlighted the federal government's *Fix a Leak Week* and offered easy repairs to save valuable water and money, and in April, water conservation month was recognized. For May's National Drinking Water Week, the FPSC reminded consumers to conserve water and also issued a release for Older Americans Month on how seniors can learn to save money on their utility bills and how to avoid utility-related scams. In October, a news release on the FPSC's Conservation Rocks event for Energy Awareness Month highlighted the importance of making conservation habits a life-long commitment.

## **Youth Education**

The Commission emphasizes conservation education for Florida's young consumers. During 2018 and 2019, the Commission continued to produce its student resource booklet, *Get Wise and Conserve Florida!*, to teach children about energy and water conservation. The booklet is distributed to all public libraries through the Library Outreach Program and is available at all Commission outreach events. The student resource book also continues to be a favorite during senior events.

## **5.2 Related Websites**

### **State Agencies and Organizations**

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

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

The Office of Energy – <http://www.freshfromflorida.com/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**

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/>

National Energy Foundation – <https://nefl.org/>

## **Florida’s Utilities Subject to FEECA**

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

Duke Energy Florida, LLC – <http://www.duke-energy.com/>

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

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

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

JEA – <http://www.jea.com/>

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

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

## **Florida’s Investor-Owned Natural Gas Utilities**

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

Florida Division of Chesapeake Utilities – <http://www.chpk.com/companies/chesapeake-utilities/>

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

Florida Public Utilities Company – Ft. Meade Div. – <http://www.fpuc.com/fortmeade/>

Florida Public Utilities Company – Indiantown Div. – <http://www.fpuc.com/about/fpufamily/>

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

Sebring Gas System – <http://www.sebringgas.com/>

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



## Appendix A. FEECA Utilities' Conservation Programs

### Electric IOUs

<b>Florida Power &amp; Light Company</b> <a href="https://www.fpl.com/save/programs-and-resources.html">https://www.fpl.com/save/programs-and-resources.html</a>	
<b>Residential Programs</b>	Residential Home Energy Survey Residential Ceiling Insulation Residential Air Conditioning Residential New Construction (BuildSmart) Residential Low-Income Residential Load Management (On Call)
<b>Commercial/Industrial Programs</b>	Business Energy Evaluation Business Lighting Business Heating, Ventilating, and Air Conditioning Business Custom Incentive Business On Call Commercial/Industrial Load Control (CILC) Commercial/Industrial Demand Reduction (CDR)
<b>Other</b>	Conservation Research and Development (CRD) Cogeneration & Small Power Production

<b>Duke Energy Florida, LLC</b> <a href="https://www.duke-energy.com/home/savings">https://www.duke-energy.com/home/savings</a>	
<b>Residential Programs</b>	Home Energy Check Residential Incentive Low-Income Weatherization Assistance Program Neighborhood Energy Saver Residential Energy Management
<b>Commercial/Industrial Programs</b>	Business Energy Check Commercial Energy Management Better Business Florida Custom Incentive Standby Generation Interruptible Service Curtailable Service
<b>Other</b>	Technology Development Qualifying Facility

<b>Tampa Electric Company</b> <a href="http://www.tampaelectric.com/residential/saveenergy/">http://www.tampaelectric.com/residential/saveenergy/</a> <a href="http://www.tampaelectric.com/business/saveenergy/">http://www.tampaelectric.com/business/saveenergy/</a>	
<b>Residential Programs</b>	Residential Energy Audits Residential Ceiling Insulation Residential Duct Repair Residential Electronically Commutated Motors (ECM) Energy Education, Awareness, and Agency Outreach ENERGY STAR Multi-Family ENERGY STAR for New Homes Residential Heating and Cooling Neighborhood Weatherization (Low-Income) Residential Price Responsive Load Management (Energy Planner) Residential Wall Insulation Residential Window Replacement
<b>Commercial/Industrial Programs</b>	Commercial/Industrial Energy Audits Commercial Ceiling Insulation Commercial Chiller Cogeneration Conservation Value Commercial Cool Roof Commercial Cooling Demand Response Commercial Duct Repair Commercial Electronically Commutated Motors (ECM) Industrial Load Management (GSLM 2&3) Lighting Conditioned Space Lighting Non-Conditioned Space Lighting Occupancy Sensors Commercial Load Management Refrigeration Anti-Condensate Control Standby Generator Thermal Energy Storage Commercial Wall Insulation Commercial Water Heating
<b>Other</b>	Conservation Research and Development Renewable Energy

<b>Gulf Power Company</b>	
<a href="https://www.gulfpower.com/residential/savings-and-energy">https://www.gulfpower.com/residential/savings-and-energy</a> <a href="https://www.gulfpower.com/business/savings-and-energy">https://www.gulfpower.com/business/savings-and-energy</a>	
<b>Residential Programs</b>	Residential Energy Audit and Education Community Energy Saver (Low-Income) Residential Custom Incentive HVAC Efficiency Improvement Residential Building Efficiency Energy Select Residential Service Time of Use Pilot
<b>Commercial/Industrial Programs</b>	Commercial/Industrial Energy Analysis Commercial HVAC Retrocommissioning Commercial Building Efficiency Commercial/Industrial Custom Incentive Critical Peak Option
<b>Other</b>	Conservation Demonstration and Development

<b>Florida Public Utilities Company</b>	
<a href="http://www.fpuc.com/electric/residential/rebates/">http://www.fpuc.com/electric/residential/rebates/</a> <a href="http://www.fpuc.com/electric/commercial/commercial-rebates/">http://www.fpuc.com/electric/commercial/commercial-rebates/</a>	
<b>Residential Programs</b>	Residential Energy Survey Residential Heating and Cooling Efficiency Upgrade
<b>Commercial/Industrial Programs</b>	Commercial Energy Consultation Commercial Heating and Cooling Efficiency Upgrade Commercial Reflective Roof Commercial Chiller Upgrade
<b>Other</b>	Low-Income Energy Outreach Conservation Demonstration and Development

## Electric Municipal Utilities

<b>JEA</b>	
<a href="https://www.jea.com/ways_to_save/home/">https://www.jea.com/ways_to_save/home/</a> <a href="https://www.jea.com/ways_to_save/business/">https://www.jea.com/ways_to_save/business/</a>	
<b>Residential Programs</b>	Residential Energy Audit Residential Solar Water Heating Residential Solar Net Metering Neighborhood Efficiency (Low-Income) Residential Efficiency Upgrade Energy Efficient Products Residential New Build
<b>Commercial/Industrial Programs</b>	Commercial Energy Audit Commercial Solar Net Metering Commercial Prescriptive Small Business Direct Install Custom Commercial

<b>Orlando Utilities Commission</b>	
<a href="http://www.ouc.com/residential/save-energy-water-money">http://www.ouc.com/residential/save-energy-water-money</a> <a href="http://www.ouc.com/business/business-rebates-programs">http://www.ouc.com/business/business-rebates-programs</a>	
<b>Residential Programs</b>	Residential Home Energy Survey Residential Duct Repair/Replacement Rebate Residential Ceiling Insulation Upgrade Rebate Residential Window Film/Solar Screen Rebate Residential High Performance Windows Rebate Residential Efficient Electric Heat Pump Rebate Residential New Home Rebate Residential Efficiency Delivered (Low-Income)
<b>Commercial/Industrial Programs</b>	Commercial Energy Survey Commercial Efficient Electric Heat Pump Rebate Commercial Duct Repair Rebate Commercial Window Film/Solar Screen Rebate Commercial High Performance Windows Rebate Commercial Ceiling Insulation Rebate Commercial Cool/Reflective Roof Rebate

## Natural Gas LDC

<b>Peoples Gas System</b> <a href="https://www.peoplesgas.com/residential/saveenergy/rebates/">https://www.peoplesgas.com/residential/saveenergy/rebates/</a> <a href="https://www.peoplesgas.com/business/saveenergy/rebates/">https://www.peoplesgas.com/business/saveenergy/rebates/</a>	
<b>Residential Programs</b>	Residential Customer Assisted Energy Audit Residential New Construction Residential Appliance Retention Residential Appliance Replacement Oil Heat Replacement
<b>Commercial/Industrial Programs</b>	Commercial Walk-Through Energy Audit Commercial Electric Replacement Gas Space Conditioning Small Package Cogeneration Commercial New Construction Commercial Retention Commercial Replacement
<b>Other</b>	Monitoring and Research Conservation Demonstration and Development





## **Appendix B. FEECA Utilities' Conservation Program Descriptions**

### **Electric FEECA IOUs**

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

##### **Residential Programs**

###### **Residential Home Energy Survey**

The Residential Home Energy Survey Program encourages implementation of recommended energy efficiency measures, even if they are not included in FPL's DSM programs. The Residential Home Energy Survey Program also identifies FPL DSM programs that could be appropriate considering the residential customers' home layouts and electricity usage patterns. FPL offers in-home, phone-assisted, and online audits for its residential customers.

###### **Residential Ceiling Insulation**

The Residential Ceiling Insulation Program encourages customers to improve their homes' thermal efficiency.

###### **Residential Air Conditioning**

The Residential Air Conditioning Program encourages customers to install high-efficiency central air conditioning systems.

###### **Residential New Construction (BuildSmart)**

The Residential New Construction Program encourages builders and developers to design and construct new homes that achieve BuildSmart certification and move towards ENERGY STAR qualifications.

###### **Residential Low-Income**

The Residential Low-Income Program assists low-income customers through state Weatherization Assistance Provider ("WAP") agencies and FPL conducted energy retrofits.

###### **Residential Load Management (On Call)**

The Residential Load Management Program allows FPL to turn off certain customer-selected appliances using FPL-installed equipment during periods of extreme demand, capacity shortages, or system emergencies.

## **Commercial/Industrial Programs**

### **Business Energy Evaluation**

The Business Energy Evaluation Program educates customers on energy efficiency and encourages implementation of recommended practices and measures, even if these are not included in FPL's DSM programs. The Business Energy Evaluation is also used to identify potential opportunities to implement for other FPL DSM programs. FPL offers the Business Energy Evaluation in on-site or online formats.

### **Business Lighting**

The Business Lighting Program encourages customers to install high-efficiency lighting systems.

### **Business Heating, Ventilating, and Air Conditioning (HVAC)**

The Business HVAC program encourages customers to install high-efficiency HVAC systems.

### **Business Custom Incentive**

The Business Custom Incentive Program encourages customers to install unique high-efficiency technologies not covered by other FPL DSM programs.

### **Business On Call**

The Business On Call Program allows FPL to turn off customers' direct expansion central air conditioning units using FPL-installed equipment during periods of extreme demand, capacity shortages, or system emergencies.

### **Commercial/Industrial Load Control (CILC)**

The Commercial/Industrial Load Control Program allows FPL to control customer loads of 200 kW or greater during periods of extreme demand, capacity shortages, or system emergencies. The CILC Program was closed to new participants as of 2000.

### **Commercial/Industrial Demand Reduction (CDR)**

The Commercial/Industrial Demand Reduction Program allows FPL to control customer loads of 200 kW or greater during periods of extreme demand, capacity shortages, or system emergencies. FPL installs a load management device at the customer's facility and provides monthly credits to customers. Unlike the CILC program, the CDR program is still open to new customers.

### **Cogeneration & Small Power Production**

The Cogeneration and Small Power Production Program facilitates the interconnection and administration of contracts for cogenerators and small power producers.

## **Research and Development Programs**

### **Conservation Research and Development (CRD)**

Under Conservation Research and Development, FPL conducts research projects to identify, evaluate, and quantify the impact of new energy efficient technologies. FPL uses the findings to potentially add new energy efficient technologies to DSM programs.

## **B. Duke Energy Florida, LLC**

### **Residential Programs**

#### **Home Energy Check**

The Home Energy Check is a residential energy audit program that provides residential customers with an analysis of their energy consumption and educational information on how to reduce energy usage and save money. DEF offers walkthrough, online, and phone-assisted audits for its residential customers.

#### **Residential Incentive**

The Residential Incentive Program provides incentives to residential customers for energy efficiency improvements in both existing and new homes.

#### **Low-Income Weatherization Assistance Program**

The Low-Income Weatherization Assistance Program works with the Florida Department of Economic Opportunity and local weatherization providers to deliver energy education, efficiency measures, and incentives to weatherize the homes of low-income families.

#### **Neighborhood Energy Saver**

The Neighborhood Energy Saver Program installs energy conservation measures, identified through an energy assessment, in the homes of customers in selected neighborhoods where at least 50 percent of households have incomes equal to or less than 200 percent of the poverty level established by the U.S. government.

#### **Residential Energy Management**

The Residential Energy Management Program uses direct control of customer equipment to reduce system demand during winter and summer peak capacity periods by temporarily interrupting select customer appliances.

### **Commercial/Industrial Programs**

#### **Business Energy Check**

The Business Energy Check Program provides no-cost energy audits at non-residential facilities either over the phone or at the customer's facility.

#### **Commercial Energy Management**

The Commercial Energy Management Program uses direct control of customer equipment to reduce system demand during winter and summer peak capacity periods.

The Commercial Energy Management Program was closed to new participants in 2000, but is still open for existing participants.

### **Better Business**

Better Business is an umbrella efficiency program that provides incentives to existing C/I and government customers for HVAC, roof insulation, duct leakage and repair, demand-control ventilation, and cool roof coating.

### **Florida Custom Incentive**

The Florida Custom Incentive Program provides incentives for individual custom projects, such as new construction measures or thermal energy storage systems, that are cost effective but not addressed by DEF's other programs.

### **Standby Generation**

The Standby Generation Program is a demand control program that reduces DEF's system demand based on control of customer equipment. This program is available to C/I customers who have on-site generation capability and are willing to reduce demand on DEF's system when requests for system reliability purposes.

### **Interruptible Service**

Interruptible Service is a direct load control DSM program in which customers allow DEF to interrupt their electrical service during times of capacity shortages based on peak or emergency conditions. In return, customers receive a monthly bill credit.

### **Curtailable Service**

Curtailable Service is an indirect load control DSM program in which customers contract to curtail all or a portion of their electricity demand during times of capacity shortages. In contrast to the Interruptible Service Program, the customer, instead of DEF, controls whether or not the customer's appliances are turned off during times of stress on the grid. In return, customers receive a monthly bill credit.

### **Qualifying Facility**

The Qualifying Facility Program supports the interconnection and purchase of as-available energy as well as firm energy and capacity from qualifying facilities including those that use renewable energy and distributed energy resources.

## **Research and Development Programs**

### **Technology Development**

The Technology Development Program allows DEF to investigate technologies that hold promise for cost-effective demand reduction and energy efficiency. DEF will investigate variable capacity heat pump air conditioners, building automated energy efficiency and demand response, energy management circuit breakers, and more.

## **C. Florida Public Utilities Company**

### **Residential Programs**

#### **Residential Energy Survey**

In the Residential Energy Survey Program, FPUC provides the customer with specific whole-house energy efficiency recommendations. FPUC also provides customers with lists of blower-door test contractors who can check for duct leakage. Finally, FPUC provides the customer with a conservation kit. FPUC offers in-home and online audits to its residential customers.

#### **Residential Heating and Cooling Efficiency Upgrade**

The Residential Heating and Cooling Upgrade Program incentivize customers operating inefficient heat pumps and air conditioners to replace them with more efficient units. The program incentivizes also customers to install a new heat pump. Finally, the program incentivizes customers who are replacing older heat pumps or air conditioners with more efficient heat pump or air conditioners.

#### **Low-Income Energy Outreach**

The Low-Income Energy Outreach Program partners with Department of Economic Opportunity approved Low-Income Weatherization Program operators to offer Residential Energy Surveys, distributing energy conservation materials, and more.

### **Commercial Programs**

#### **Commercial Energy Consultation**

In the Commercial Energy Consultation Program, FPUC energy conservation representatives conduct commercial site visits to assess the potential for applicable DSM programs, educate customers about FPUC's commercial DSM programs, and more.

#### **Commercial Heating and Cooling Efficiency Upgrade**

The Commercial Heating and Cooling Upgrade Program provides rebates to small commercial customers (customers with a maximum of 5 ton units) if the customers install a high-efficiency central air conditioner or heat pump with a minimum 15 SEER.

#### **Commercial Reflective Roof**

The Commercial Reflective Roof Program provides rebates to non-residential customers who convert or install a new cool roof on an existing or new building. The rebates cover up to 25 percent of the added upfront cost of building a cool roof compared to an alternative roof.

#### **Commercial Chiller Upgrade**

The Commercial Chiller Upgrade Program offers customers an incentive of up to \$175/kW of savings above minimum efficiency levels.

## Research and Development Programs

### **Conservation Demonstration and Development**

The Conservation Demonstration and Development Program researches energy efficiency and conservation projects to identify, develop, demonstrate, and evaluate promising end-use energy efficient technologies across a wide variety of applications.

## D. Gulf Power Company

### Residential Programs

#### **Residential Energy Audit and Education**

The Residential Energy Audit and Education Program is the primary educational program to help customers improve the energy efficiency of their new or existing home. The program provides energy conservation advice and information that encourages the implementation of efficiency measures and behaviors that result in electricity bill savings. Gulf offers its residential customers in-home and online audits.

#### **Community Energy Saver (Low-Income)**

The Community Energy Saver Program installs energy conservation measures in the homes of low-income families at no cost to the customers. The program also educates families on behavioral changes designed to save money by decreasing energy use.

#### **Residential Custom Incentive**

The Residential Custom Incentive Program aims to increase energy efficiency in the residential rental property sector. The program promotes the installation of efficiency measures available through other programs, such as HVAC maintenance and quality installation, high performance windows, and reflective roofing. As suitable, the program has other incentives to surmount the split-incentive barrier in a landlord/renter situation.

#### **HVAC Efficiency Improvement**

The HVAC Efficiency Improvement Program aims to increase energy efficiency and improve HVAC cooling system performance for new and existing homes. Gulf increases efficiency through HVAC maintenance, duct repair, and HVAC quality installation.

#### **Residential Building Efficiency**

The Residential Building Efficiency Program is an umbrella efficiency program for existing and new residential customers to install eligible equipment such as high performance windows, reflective roof, and ENERGY STAR window air conditioners. The goals are to increase customer demand for energy efficient technologies and to create long-term energy savings and peak demand reduction.

#### **Energy Select**

The Energy *Select* Program gives customers a way to manage their energy consumption by programming their heating and cooling systems and major appliances, such as electric

water heaters and pool pumps, to respond automatically to prices that vary during the day and by season in relation to Gulf's cost of producing or purchasing energy.

### **Residential Service Time of Use Pilot**

The Residential Service Time of Use Pilot Program provides residential customers the opportunity to use customer-owned equipment to respond automatically and take advantage of a variable pricing structure with a critical peak component. The pilot will be offered to 400 residential customers. The goal is to measure customers' response, with customer owned equipment, to a variable electricity price.

## **Commercial Programs**

### **Commercial/Industrial Audit**

The Commercial/Industrial Audit Program provides advice to Gulf's existing C/I customers on how to reduce energy consumption. The program ranges from an Energy Analysis Audit and walk-through surveys to a Technical Assistance Audit and computer programs that simulate options for very large, energy-intensive customers. Gulf offers this audit in the form of an on-site walkthrough.

### **Commercial HVAC Retrocommissioning**

The Commercial HVAC Retrocommissioning program offers retrocommissioning at a reduced cost for qualifying installations by C/I customers. Retrocommissioning is a process of identifying suboptimal performance in a facility's systems and replacing the outdated equipment.

### **Commercial Building Efficiency**

The Commercial Building Efficiency Program is an umbrella efficiency program for C/I customers to encourage the installation of high-efficiency equipment in order to reduce energy and demand. The high-efficiency equipment is focused on commercial geothermal heat pumps, ceiling/roof insulation, and reflective roofs.

### **Commercial/Industrial Custom Incentive**

The Commercial/Industrial Custom Incentive Program offers energy efficient end-user equipment to C/I customers. The C/I Custom Incentive Program also offers energy services such as comprehensive audits, design, and construction of energy conservation projects. Covered projects include demand reduction or energy improvement retrofits that are beyond the scope of other DSM programs.

### **Critical Peak Option**

This program allows customers on Gulf's Large Power Time-of-Use rate schedule an option to receive credits for capacity that can be reduced during peak load conditions. The program provides a fixed, per-kW credit for measured on-peak demand and a charge for any measured demand recorded during a called critical peak event.

## **Research and Development Programs**

### **Conservation Demonstration and Development**

The Conservation Demonstration and Development Program is an umbrella program for the identification, development, and evaluation of end-use energy efficient technologies.

## **E. Tampa Electric Company**

### **Residential Programs**

#### **Residential Energy Audits**

The Residential Energy Audits Program includes a walk-through free energy check, a customer-assisted energy audit, a computer- assisted paid energy audit, and a building energy ratings system (BERS) audit.

#### **Residential Ceiling Insulation**

The Residential Ceiling Insulation Program offers rebates to existing residential customers to install additional ceiling insulation in existing homes.

#### **Residential Duct Repair**

The Residential Duct Repair Program encourages residential customers to repair leaky duct work of central air conditioning systems in existing homes.

#### **Residential Electronically Commutated Motors (ECM)**

The Residential Electronically Commutated Motors Program encourages residential customers to replace their existing HVAC air handler motors with more efficient ECMs.

#### **Energy Education, Awareness, and Agency Outreach**

The Energy Education, Awareness, and Agency Outreach Program engages and educates groups of customers and students on energy efficiency in an organized setting. Also, participants receive an energy savings kit with energy saving devices and information.

#### **ENERGY STAR for New Multi-Family Residences**

The ENERGY STAR for Multi-Family Residences Program utilizes a rebate to encourage construction of new multi-family residences that meet the requirements to achieve the ENERGY STAR certified apartments and condominiums label.

#### **ENERGY STAR for New Homes**

The ENERGY STAR for New Homes Program incentivizes residential customers to build homes that qualify for the ENERGY STAR award by achieving energy efficiency levels greater than current Florida building code baseline practices.

#### **Residential Heating and Cooling**

The Residential Heating and Cooling Program offers rebates to residential customers for installing high-efficiency heating and cooling equipment in existing homes.



**Neighborhood Weatherization (Low-Income)**

The Neighborhood Weatherization Program provides for the installation of energy efficient measures for qualified low-income customers.

**Renewable Energy**

The Renewable Energy Program delivers renewable energy options to TECO's customers through program administration, renewable electricity generation, evaluation of potential new renewable sources, and market research.

**Residential Price Responsive Load Management (Energy Planner)**

The Residential Price Responsive Load Management (Energy Planner) Program reduces weather-sensitive loads through an innovative price responsive rate. The price responsive rate encourages residential customers to make behavioral or equipment usage changes by pre-programming HVAC, water heating, and pool pumps.

**Residential Wall Insulation**

The Residential Wall Insulation Program offers rebates to existing residential customers to install additional wall insulation in existing homes.

**Residential Window Replacement**

The Residential Window Replacement Program offers rebates to existing residential customers to install window upgrades in existing homes.

**Commercial Programs****Commercial/Industrial Energy Audits**

In the C/I Energy Audits Program, C/I customers can receive more limited free energy audits or comprehensive paid energy audits.

**Commercial Ceiling Insulation**

The Commercial Ceiling Insulation Program incentivizes C/I customers to install additional ceiling insulation in existing commercial buildings.

**Commercial Chiller**

The Commercial Chiller Program offers rebates to C/I customers for installing high efficiency chiller equipment.

**Cogeneration**

The Cogeneration Program incentivizes large industrial customers with waste heat or fuel resources to use their onsite energy to avoid fuel waste and install electric generating equipment. The large industrial customers may sell their surplus electric generation to TECO.

**Conservation Value**

The Conservation Value Program offers rebates to C/I customers to invest in energy conservation measures that are not in other C/I programs.

**Commercial Cool Roof**

The Commercial Cool Roof Program encourages C/I customers to install a cool roof system above conditioned spaces.

**Commercial Cooling**

The Commercial Cooling Program encourages C/I customers to install high efficiency direct expansion commercial air conditioning cooling equipment.

**Demand Response**

The Demand Response Program incentivizes C/I customers to reduce electricity demand at certain peak times.

**Commercial Duct Repair**

The Commercial Duct Repair Program encourages C/I customers to repair leaky ductwork of central air conditioning systems in existing C/I facilities.

**Commercial Electronically Commutated Motors (ECM)**

The Commercial Electronically Commutated Motors Program encourages C/I customers to replace air handler motors or refrigeration fan motors with ECMs.

**Industrial Load Management (GSLM 2&3)**

The Industrial Load Management Program incentivizes large industrial customers to allow TECO to interrupt part of or their entire electrical service during periods of peak stress on the grid.

**Lighting Conditioned Space**

The Lighting Conditioned Space Program encourages C/I customers to invest in more efficient lighting technologies in existing conditioned areas of C/I facilities.

**Lighting Non-Conditioned Space**

The Lighting Non-Conditioned Space Program encourages C/I customers to invest in more efficient lighting technologies in existing non-conditioned areas of C/I facilities.

**Lighting Occupancy Sensors**

The Lighting Occupancy Sensors Program encourages C/I customers to install occupancy sensors to control C/I lighting systems.

**Commercial Load Management**

The Commercial Load Management Program incentivizes C/I customers to allow TECO to control weather-sensitive heating, cooling, and water heating systems to reduce the associated weather-sensitive peak demand.

**Refrigeration Anti-Condensate Control**

The Refrigeration Anti-Condensate Control Program encourages C/I customers to install anti-condensate equipment sensors within refrigerated door systems.

**Standby Generator**

The Standby Generator Program incentivizes C/I customers to use available emergency electrical generation capacity in order to reduce weather-sensitive peak demand on the grid.

**Thermal Energy Storage**

The Thermal Energy Storage Program encourages C/I customers to install an off-peak air conditioning system.

**Commercial Wall Insulation**

The Commercial Wall Insulation Program encourages C/I customers to install wall insulation in existing C/I structures.

**Commercial Water Heating**

The Commercial Water Heating Program encourages C/I customers to install high efficiency water heating systems.

**Research and Development****Conservation Research and Development (R&D)**

The Conservation Research and Development Program allows TECO to explore DSM measures that have insufficient data on cost-effectiveness and the impact on TECO's ratepayers.

**Electric FEECA Municipal Utilities****A. JEA****Residential Programs****Residential Energy Audit**

In the Residential Energy Audit Program, JEA examines homes, educates customers, and makes recommendations on low-cost or no-cost energy-saving practices and measures.

**Residential Solar Water Heating**

The Residential Solar Water Heating Program pays a financial incentive to customers to encourage the use of solar water heating technology.

**Residential Solar Net Metering**

The Residential Solar Net Metering Program promotes the use of PV by purchasing excess electricity from residential customers who have PV.

**Neighborhood Efficiency (Low-Income)**

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

### **Residential Efficiency Upgrade**

The Residential Efficiency Upgrade Program provides incentives to encourage the use of high efficiency HVAC and water heating. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA. Nevertheless, this program creates demand and energy savings.

### **Energy Efficient Products**

The Energy Efficient Products Program provides incentives to encourage the use of high efficiency lighting and efficient appliances. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA.

### **Residential New Build**

The Residential New Build Program promotes the use of high efficiency HVAC, water heating, lighting, and appliances in the new construction market. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA. Nevertheless, this program creates demand and energy savings.

## **Commercial Programs**

### **Commercial Energy Audit**

In the Commercial Energy Audit Program, JEA examines businesses, educates customers, and makes recommendations on low-cost or no-cost energy-saving practices.

### **Commercial Solar Net Metering**

The Commercial Solar Net Metering Program promotes the use of PV by purchasing excess electricity from commercial customers who have PV.

### **Commercial Prescriptive**

The Commercial Prescriptive Program provides incentives to encourage the use of high efficiency HVAC, lighting, cooking, and water heating products. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA. Nevertheless, this program creates demand and energy savings.

### **Small Business Direct Install**

The Small Business Direct Install Program promotes the use of high efficiency HVAC, lighting, water heating, and appliances in the small business sector. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA. Nevertheless, this program creates demand and energy savings.

### **Custom Commercial**

The Custom Commercial Program promotes the use of custom efficiency measures based on specific applications for each customer. This is one of the DSM programs that JEA offers which has not been approved by the Commission and is not part of FEECA. Nevertheless, this program creates demand and energy savings.

## **B. Orlando Utilities Commission**

### **Residential Programs**

#### **Residential Home Energy Survey**

The Residential Home Energy Survey Program consists of three measures: a Residential Energy Walk-Through Survey, a Residential Energy Survey DVD, and an interactive Online Energy Survey.

#### **Residential Duct Repair/Replacement Rebate**

The Residential Duct Repair/Replacement Rebate Program provides up to a \$160 rebate to encourage customers to repair leaking ducts on existing systems.

#### **Residential Ceiling Insulation Upgrade Rebate**

The Residential Ceiling Insulation Upgrade Rebate Program is offered to residential customers to encourage the upgrade of attic insulation.

#### **Residential Window Film/Solar Screen Rebate**

The Residential Window Film/Solar Screen Rebate Program encourages solar shading on windows.

#### **Residential High Performance Windows Rebate**

The Residential High Performance Windows Rebate Program encourages customers to install windows that minimize heating, cooling, and lighting costs.

#### **Residential Efficient Electric Heat Pump Rebate**

The Residential Efficient Electric Heat Pump Rebate Program provides rebates to customers in existing homes who install heat pumps having a seasonal energy efficiency ratio (SEER) of 15.0 or higher.

#### **Residential New Home Rebate**

The Residential New Home Rebate Program offers rebates for cool/reflective roofs, block wall insulation, ceiling insulation upgrades to R-38, heat pumps, ENERGY STAR washing machines, ENERGY STAR heat pump water heaters, and solar water heaters.

#### **Residential Efficiency Delivered (Low-Income)**

The Residential Efficiency Delivered Program is income based and provides up to \$2,000 of energy and water efficiency upgrades based on the needs of the residential customer's home. An OUC Conservation Specialist visits the home, performs a home survey, and recommends which home improvements have the most potential of lowering utility bills.

## **Commercial Programs**

### **Commercial Energy Survey**

The Commercial Energy Audit Program includes a free survey consisting of a physical walk-through inspection of the commercial facility performed by experienced energy experts. Following the inspection, the customer receives a written report.

### **Commercial Efficient Electric Heat Pump Rebate**

The Commercial Efficient Electric Heat Pump Rebate Program provides rebates to qualifying customers in existing buildings who install heat pumps having a seasonal energy efficiency ratio (SEER) of 15.0 or higher.

### **Commercial Duct Repair Rebate**

The Commercial Duct Repair Rebate Program provides rebates of 100 percent of the cost, up to \$160, when qualifying customers have an existing central air conditioning system of 5.5 tons or less. Then, customers must seal ducts with mastic and fabric tape or Underwriters Laboratory approved duct tape.

### **Commercial Window Film/Solar Screen Rebate**

The Commercial Window Film/Solar Screen Rebate Program aims to reflect heat during hot summer days and retain heat on cool winter days. The program provides rebates of \$1 per square foot for window tinting and solar screening with a solar heat gain coefficient (SHGC) of 0.44 or shading coefficient of 0.5 or less.

### **Commercial High Performance Windows Rebate**

The Commercial High Performance Windows Rebate Program encourages customers to install windows that minimize heating, cooling, and lighting costs.

### **Commercial Ceiling Insulation Rebate**

The Commercial Ceiling Insulation Rebate Program aims to increase a building's resistance to heat loss and gain. Participating customers receive a per square foot for upgrading their attic insulation up to R-30

### **Commercial Cool/Reflective Roof Rebate**

The Commercial Cool/Reflective Roof Rebate Program aims to reflect the sun's rays and lower roof surface temperature while increasing the lifespan of the roof. OUC provides rebates per square foot of ENERGY STAR cool/reflective roofing that has an initial solar reflectance greater than or equal to 0.70.

# Natural Gas FEECA Utility

## A. Peoples Gas System

### Residential Programs

#### **Residential Customer Assisted Energy Audit**

The Residential Customer Assisted Audit is designed to save energy by increasing residential customer awareness of natural gas use in personal residences. Recommendations provided to the customer include an estimated range of energy savings including insightful advice on how to manage their overall energy usage. This audit is only available in an online format.

#### **Residential New Construction**

The Residential New Construction Program is designed to save energy for new home owners by offering incentives to builders for the installation of natural gas appliances.

#### **Residential Appliance Retention**

The Residential Appliance Retention Program is designed to encourage current natural gas customers to make cost-effective improvements in existing residences by replacing existing natural gas appliances with energy efficient natural gas appliances.

#### **Residential Appliance Replacement**

The Residential Appliance Replacement Program is designed to encourage customers to make cost-effective improvements in existing residences by replacing existing electric appliances with energy efficient natural gas appliances.

#### **Oil Heat Replacement**

The Oil Heat Replacement Program is designed to encourage customers to make cost-effective improvements in existing residences by converting/replacing their existing oil heating system to more energy efficient natural gas heating.

### Commercial/Industrial Programs

#### **Commercial Walk-Through Energy Audit**

This program is designed to reduce demand and energy consumption of C/I facilities by increasing customer awareness of the energy use in their facilities.

#### **Commercial Electric Replacement**

The Commercial Electric Replacement Program is designed to encourage commercial customers to make cost-effective improvements in existing facilities by replacing electric resistance appliances with energy efficient natural gas appliances.

#### **Gas Space Conditioning**

The Gas Space Conditioning Program is designed to encourage commercial customers to make cost-effective improvements in existing facilities by converting/replacing their

electric space conditioning equipment to energy efficient natural gas space conditioning equipment.

#### **Small Package Cogeneration**

The Small Package Cogeneration Program is designed to encourage commercial customers to make cost-effective improvements in existing facilities by the installation of an energy efficient on-site natural gas-fired combined heat and power system for the simultaneous production of mechanical and thermal energy.

#### **Commercial New Construction**

The Commercial New Construction Program is designed to save energy for new commercial facility owners by offering incentives to commercial customers for the installation of natural gas appliances.

#### **Commercial Retention**

The Commercial Retention Program is designed to encourage current natural gas commercial customers to make cost-effective improvements in existing residences by replacing existing natural gas appliances with energy efficient natural gas appliances

#### **Commercial Replacement**

The Commercial Replacement Program is designed to encourage commercial customers to make cost-effective improvements in existing facilities by replacing electric appliances with energy efficient natural gas appliances.

### **Research and Development**

#### **Monitoring and Research**

The Monitoring and Research Program is designed to pursue research, development, and demonstration projects designed to promote energy efficiency and conservation.

#### **Conservation Demonstration and Development**

The Conservation Demonstration and Development Program is designed to encourage Peoples Gas System and other natural gas LDCs to pursue opportunities for individual and joint research, including testing of technologies to develop new energy conservation programs.