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-M-E-M-O-R-A-N-D-U-M-

DATE: May 12, 2011

TO: Office of Commission Clerk (Cole)

FROM: Division of Regulatory Analysis (Garl, Brown, Harlow, Lewis) *SOB* *QAH* *KLW* *MT*
Office of the General Counsel (Harris) *AT*

TDS
ALT
BMB

RE: Docket No. 100155-EG – Petition for approval of demand-side management plan of Florida Power & Light Company.

AGENDA: 05/24/11 – Regular Agenda – Proposed Agency Action – Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Administrative

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\RAD\WP\100155.RCM.05-24-11.DOC

Case Background

The Commission, as required by the Florida Energy Efficiency and Conservation Act (FEECA), Sections 366.80 through 366.85 and 403.519, Florida Statutes (F.S.), adopted annual goals for seasonal peak demand and annual energy consumption for the FEECA Utilities. They are Florida Power & Light Company (FPL), Progress Energy Florida (PEF), Tampa Electric Company (TECO), Gulf Power Company (Gulf), Florida Public Utilities Company (FPUC), JEA, and Orlando Utilities Commission (OUC).

Pursuant to Rule 25-17.008, Florida Administrative Code (F.A.C.), in any conservation goal setting proceeding, the Commission requires each FEECA utility to submit cost-effectiveness information based on, at a minimum, three tests: (1) the Participants test; (2) the

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Rate Impact Measure (RIM) test, and (3) the Total Resource Cost (TRC) test. The Participants test measures program cost-effectiveness to the participating customer. The RIM test measures program cost-effectiveness to the utility's overall rate payers, taking into consideration the cost of incentives paid to participating customers and lost revenues due to reduced energy sales that may result in the need for a future rate case. The TRC test measures total net savings on a utility system-wide basis. In past goal setting proceedings, the Commission established conservation goals based on measures that pass both the Participants test and the RIM test.

The 2008 Legislative Session resulted in several changes to the FEECA Statute, and the Commission's goal-setting proceeding was the first implementation of these modifications. By Order No. PSC-09-0855-FOF-EG,¹ the Commission established annual numeric goals for summer peak demand, winter peak demand, and annual energy consumption for the period 2010 through 2019, based upon an unconstrained Enhanced-Total Resource test (E-TRC) for the investor-owned utilities (IOUs). The E-TRC test differs from the conventional TRC test by taking into consideration the estimated additional costs imposed by the potential regulation of greenhouse gas emissions. In addition, the numeric impact of certain measures with a payback period of two years or less were also included in the goals. Further, the IOUs were authorized to spend up to 10 percent of their historic expenditures through the Energy Conservation Cost Recovery (ECCR) clause as an annual cap for pilot programs to promote solar water heating (Thermal) and solar photovoltaic (PV) installations.

On January 14, 2010, FPL filed a Motion for Reconsideration of the Commission's decision in Docket No. 080407-EI. Order No. PSC-10-0198-FOF-EG² denied FPL's motion. On March 30, 2010, FPL filed a petition requesting approval of its Demand-Side Management (DSM) Plan pursuant to Rule 25-17.0021, F.A.C.

On May 7, 2010, the Florida Industrial Users Group (FIPUG) was granted leave to intervene by the Commission.³ The Southern Alliance for Clean Energy (SACE) was granted leave to intervene on August 9, 2010.⁴ The Florida Solar Energy Industry Association (FlaSEIA) was granted leave to intervene on August 11, 2010.⁵ Wal-Mart Stores East, LP, and Sam's East, Inc. (Walmart) was granted leave to intervene on August 18, 2010.⁶

On July 14, 2010, SACE filed comments on the FEECA Utilities' DSM Plans. These comments were amended on August 3, 2010, to include comments regarding FPUC. No other interveners filed comments. On July 28, and August 12, 2010, PEF and Gulf, respectively, filed

¹ See Order No. PSC-09-0855-FOF-EG, issued December 30, 2009, in Docket No. 080407-EG, In re: Commission review of numeric conservation goals (Florida Power & Light Company).

² See Order No. PSC-10-0198-FOF-EG, issued March 31, 2010, in Docket No. 080407-EG, In re: Commission review of numeric conservation goals (Florida Power & Light Company).

³ See Order No. PSC-10-0287-PCO-EG, issued May 7, 2010, in Docket No. 100155-EG, In re: Petition of approval of demand-side management plan of Florida Power & Light Company. (FIPUG)

⁴ See Order No. PSC-10-0494-PCO-EG, issued August 9, 2010, in Docket No. 100155-EG, In re: Petition of approval of demand-side management plan of Florida Power & Light Company. (SACE)

⁵ See Order No. PSC-10-0506-PCO-EG, issued August 11, 2010, in Docket No. 100155-EG, In re: Petition of approval of demand-side management plan of Florida Power & Light Company. (FlaSEIA)

⁶ See Order No. PSC-10-0525-PCO-EG, issued August 18, 2010, in Docket No. 100155-EG, In re: Petition of approval of demand-side management plan of Florida Power & Light Company. (Walmart)

responses to SACE's comments. On December 22, 2010, SACE filed additional comments on the FEECA Utilities' DSM Plans. On April 25, 2011, SACE filed comments similar to those it submitted in December 2010 on FPL and PEF's revised plans.

On January 31, 2011, the Commission denied approval of FPL's Demand-Side Management Plan for failure to satisfy the numeric conservation goals set forth in Order No. PSC-09-0855-FOF-EG. Further, the Commission ordered FPL to re-file its Demand-Side Management Plan within 30 days from the date of the Consummating Order, and to the extent possible, provide information on the estimated job creation impact for each program of the modified DSM Plan. Order No. PSC-11-0079-PAA-EG also approved FPL's seven proposed solar pilot programs for immediate implementation.⁷ FPL filed its Modified DSM Plan on March 25, 2011. FPL also filed an Alternate Plan which has a lower rate impact but reduced projected savings compared to the Modified Plan. FPL's cover letter for the Company's filings stated:

FPL does not project, capture, or track job creation impacts resulting from its DSM Plan or individual DSM programs, nor does FPL presently have the means to accurately estimate this information.

Nonetheless, FPL acknowledges that some jobs are likely created in the process of implementing additional conservation measures.

It is important to keep in mind, however, that the DSM goals established by Order No. PSC-09-0855-FOF-EG will increase conservation-related expenses for all customers, including business customers, leaving fewer resources for these businesses to hire new employees. As a result, the cost of any plan to meet such goals could depress job creation as compared to FPL's DSM Plan approved in 2005 or the Alternate DSM Plan filed herewith.

The Commission has jurisdiction over this matter pursuant to Sections 366.80 through 366.85 and 403.519, F.S.

⁷ See Order No. PSC-11-0079-PAA-EG, issued January 31, 2011, in Docket No. 100155-EG, In re: Petition of approval of demand-side management plan of Florida Power & Light Company.

Discussion of Issues

Issue 1: Does FPL's Modified Demand-Side Management Plan satisfy the Company's numeric conservation goals set by the Commission in Order No. PSC-09-0855-FOF-EG?

Recommendation: Yes. The Commission should approve FPL's Modified Plan because it is projected to achieve all goals, is cost-effective, and it does not create an undue rate impact. As such, there is no need to consider the Alternate Plan which fails to meet most goals. FPL should file its program standards for all its programs within 30 days of the Commission's Order in this docket. (Garl, Harris)

Staff Analysis: By Order No. PSC-09-0855-FOF-EG, the Commission established annual goals for the FEECA Utilities for the period 2010 through 2019. These goals are divided into residential and commercial/industrial categories, with each of these further subdivided into three categories: summer peak demand, winter peak demand, and annual energy consumption. Order No. PSC-09-0855-FOF-EG set annual, not aggregate or cumulative, goals for conservation in the six categories, and FPL is responsible for meeting its required conservation goals.

FPL's initial filing submitted March 30, 2010, was insufficient to meet several of the Commission's annual goals in multiple categories and multiple years. Although, FPL did request a modification of its approved goals, the Commission denied the request.⁸ The Commission directed FPL, in Order No. PSC-09-0855-FOF-EG, to file specific program modifications or additions needed for the Company's DSM Plan to be in compliance with Order No. PSC-09-0855-FOF-EG. FPL's Modified DSM Plan, submitted on March 25, 2011, modified certain programs to fulfill these requirements.

FPL's Modified Plan meets all annual residential and commercial/industrial goals. The Modified DSM Plan represents an increase of approximately 11.6 megawatts (MW) of summer peak demand, 18.1 MW of winter peak demand, and 57.6 gigawatt-hours (GWh) of annual energy, over the original DSM plan filed on March 30, 2010. The projected demand and energy savings stated in the Modified DSM Plan, along with the goals approved by the Commission in Order No. PSC-09-0855-FOF-EG, are summarized in Tables 1 and 2 below. Since no new programs were approved during 2010, staff is only showing estimates for 2011-2019.

⁸ See Order No. PSC-10-0198-FOF-EG, issued March 31, 2010, in Docket No. 080407-EG, In re: Commission review of numeric conservation goals (Florida Power & Light Company).

Table 1
 Comparison of Residential Goals and Projected Savings

Year	Summer (MW)		Winter (MW)		Annual (GWh)	
	Commission Approved Goal	FPL Projected Savings	Commission Approved Goal	FPL Projected Savings	Commission Approved Goal	FPL Projected Savings
2011	79.7	82.1	42.4	55.1	145.8	146.8
2012	90.2	94.5	50.3	62.3	168.8	170.5
2013	98.5	98.5	56.3	63.0	186.7	188.7
2014	104.3	104.3	60.2	65.3	200.0	201.9
2015	100.7	101.7	55.9	61.7	193.0	193.0
2016	95.9	98.3	51.3	59.3	183.4	186.1
2017	91.4	92.3	47.0	56.7	174.2	174.2
2018	87.4	88.8	43.2	51.8	166.4	167.2
2019	83.3	83.3	39.4	45.4	157.5	157.5
Total	831.4	843.8	446.0	520.6	1,575.8	1,585.9

Table 2
 Comparison of Commercial/Industrial Goals and Projected Savings

Year	Summer (MW)		Winter (MW)		Annual (GWh)	
	Commission Approved Goal	FPL Projected Savings	Commission Approved Goal	FPL Projected Savings	Commission Approved Goal	FPL Projected Savings
2011	62.5	66.4	9.9	43.8	149.4	155.5
2012	76.3	76.3	11.6	52.2	191.5	201.4
2013	81.3	81.3	13.1	54.2	202.7	222.2
2014	79.3	79.3	14.4	54.1	194.1	221.9
2015	71.5	71.5	15.1	52.4	167.5	186.4
2016	60.0	61.8	15.0	45.2	134.2	134.2
2017	48.7	48.8	14.1	44.1	104.8	104.8
2018	41.3	41.9	13.2	42.8	86.9	86.9
2019	35.0	36.7	12.0	41.9	71.0	71.0
Total	555.9	564.1	118.4	430.7	1,302.1	1,384.3

Staff is aware that the values presented in this docket are projections based upon participation rates which may or may not occur. Staff will continue to monitor and report the actual amount of DSM savings each year, on an annual and cumulative basis, as part of the Commission's annual report addressing progress toward goal achievement (FEECA Report). In the event that FPL fails to achieve its DSM goals in one or more categories, the utility can submit justification for its failure to meet the annual or cumulative goals. Depending on the actual results realized, FPL's failure to meet its goals in any year may result in financial penalties or other appropriate action by the Commission at the time of the violation.

Description of the Modified DSM Plan

FPL’s DSM Plan, filed on March 30, 2010, consisted of 34 energy and demand saving programs, including 7 solar pilot programs. The solar pilot programs were approved by the Commission in January 2011.⁹ The Modified Plan, filed on March 25, 2011, contains the same 34 programs which are compared in Table 3 below to FPL’s existing DSM programs approved prior to the goal-setting proceeding. A summary of each program can be found in Attachment A.

Table 3
Summary of FPL's Proposed DSM Programs

Program Type	Residential	Comm./Ind.	Other*	Total
Existing	1	6	1	8
Modified	6	5	0	11
New	7	4	4	15
Total	14	15	5	34

*This includes programs classified as both residential and commercial/industrial.

In revising the March 30, 2010, DSM Plan, the Company increased participation levels in three of the energy and demand saving programs of the Modified Plan. Basically, FPL’s Modified Plan adjusted participation rates upward, which increased savings to comply with Commission goals. FPL believes, since it viewed the participation increases as so small, it could achieve such increases without substantively modifying the programs. Table 4 below lists the programs from the March 30, 2010, DSM Plan which were revised in FPL’s Modified Plan filed on March 25, 2011.

Table 4
List of Revised Programs in FPL's Modified Plan

Residential Programs	Program Changes
1. Residential Building Envelope	Ten year participation increased by 1,597 (0.47%)
2. Residential Load Management (On-Call)	Ten year participation increased by 3,965 (7.95%)
Commercial/Industrial	Program Changes
1. Business Heating, Ventilation & Air Conditioning	Ten year participation increased by 7,958 (5.02%)

Program Cost-Effectiveness

In reviewing FPL’s Modified DSM Plan, staff analyzed the assumptions made for a variety of aspects of the programs, including, but not limited to, rebate and incentive levels, participation rates, energy savings, and avoided costs. Staff issued data requests, and used

⁹ See Order No. PSC-11-0079-PAA-EG, issued January 31, 2011, in Docket No. 100155-EG, In re: Petition of approval of demand-side management plan of Florida Power & Light Company.

previously submitted data from the utility's DSM programs, the goal-setting docket, and the Company's Ten-Year Site Plan to examine each category. Overall, staff believes FPL's assumptions in building its plan are reasonable for use in evaluating FPL's Modified DSM Plan.

For rebates and incentives, about 70 percent of the programs were limited to a cap of 75 percent of the customer's cost or less. While incentives do not impact the E-TRC test, they can have a role in customers' rates, as discussed below. It should be noted that several programs which did not feature rebates or incentives did provide free equipment to customers. These programs include audits and several targeting low income customers. The equipment consisted of items such as compact fluorescent light bulbs, water heater blankets, and other simple devices.

Participation rates in the Modified Plan were compared to existing programs when applicable. FPL projects that four of its existing, unmodified programs, primarily demand response programs, will experience about a 60-70 percent reduction in participation as compared to the average of the past five years. Staff views this reduction being due to market saturation, since these programs have been active several years. FPL proposes modifying 11 of its existing programs, primarily by increasing or adding rebates and incentives. As would be expected with increased incentives, FPL projects participation in the 11 modified programs will increase, dramatically in some cases. Staff notes, however, that as these are voluntary programs, FPL is responsible for continual monitoring of actual participation rates.

Seasonal peak demand and annual energy savings from the proposed programs in FPL's DSM Plans were compared to existing programs when applicable. Program energy savings vary from previous programs, partially due to increased efficiency standards and building codes, but also due to modifications and new additions to the program's component measures, as well as increased incentives driving greater participation. For example, FPL's Business Water Heating Program has a proposed 141 percent incentive increase leading to a projection of a 943 percent participation increase and a 491 percent increase in annual energy savings. Savings increases in eight other programs similarly result, at least in part, from incentive increases prompting participation increases. Should participation fall below expected values, FPL is responsible for taking appropriate action to meet its conservation goals.

FPL used a natural gas-fired combined cycle 1,219 MW unit with an in-service date of 2019 as its avoided unit in calculating the economic benefit of its demand-side management programs. In addition to those savings associated with avoided or deferred generation or transmission assets, FPL included the potential cost of greenhouse gas emissions in its cost of energy, which it calculated as \$14 per ton, starting in 2013, and escalating in the future. The avoided unit and greenhouse gas data, as well as transmission and distribution line loss percentages are the same that FPL used during the goal-setting proceeding. As a result, the resulting cost-effectiveness tests are referred to as the E-TRC and E-RIM tests.

By definition, a program passes a cost-effectiveness test if the benefits-to-cost ratio is greater than 1.00. All proposed programs pass both the E-TRC and Participants tests with ratios greater than 1.00. All but four programs also pass the E-RIM test, indicating the majority of FPL's DSM Plan is cost-effective to both participating and non-participating customers. Though the Commission's Order states E-RIM test results shall be considered in evaluating programs, it

does not require programs to pass the E-RIM test. Cost-effectiveness test results for FPL's Modified Plan programs are shown in Table 5 below:

Table 5
Cost Effectiveness Test Results by Program

Program Name	E-TRC	E-RIM	Participant
Residential Low Income Portfolio			
1. Res. Low Income Weatherization	1.80	0.90	2.98
2. Res. Power Savers Energy Audit	3.46	0.78	9.17
3. Res. Power Savers Energy Efficiency	2.01	0.96	2.61
Residential Portfolio			
1. Res. Home Energy Survey	-	-	-
2. Res. Air Conditioning	1.61	1.08	1.83
3. Res. Duct System Testing & Repair	2.90	1.26	3.40
4. Res. Building Envelope	1.33	1.11	1.47
5. Res. New Construction (BuildSmart ®)	2.81	1.26	3.00
6. Res. Load Management (On Call)	6.43	2.82	Infinite
7. Res. Air Conditioning Tune-up & Maintenance	1.98	1.23	2.42
8. Res. Refrigerator Replacement	1.11	0.72	2.13
Business Portfolio			
1. Bus. Energy Evaluation	-	-	-
2. Bus. Heating, Ventilating & Air Conditioning	3.07	1.10	3.34
3. Bus. Lighting	4.30	1.20	4.20
4. Bus. Refrigeration	4.33	1.11	4.81
5. Bus. Building Envelope	1.53	1.02	1.67
6. Bus. Water Heating	2.89	1.01	3.43
7. Bus. Custom Incentive	-	-	-
8. Cogeneration & Small Power Production	-	-	-
9. Bus. On Call	7.70	3.23	Infinite
10. C/I Demand Reduction	88.80	3.10	Infinite
11. C/I Load Control ¹⁰	-	-	-
12. Bus. Motors	6.75	1.24	6.61

Several types of programs are not evaluated for cost-effectiveness. These include audits, which are mandated by the Commission to be available for ratepayers, and pilot programs, which are designed to gather additional information on conservation measures or methods. FPL does not include any kW or kWh savings associated with audits to meet its goals. Notable pilot programs incorporated in FPL's DSM Plans are its seven new solar thermal water heating and photovoltaic programs, which are necessary to fulfill Commission Order No. PSC-09-0855-FOF-EG.

¹⁰ FPL's Commercial/Industrial Load Control Program was closed to new participants as of December 31, 2000.

Rate Impact

Staff first reviewed the changes between the previous DSM goals and those set by the Commission in Order No. PSC-09-0855-FOF-EG. The level of annual energy savings FPL is to achieve from 2010 to 2019 is 191.1 percent higher than the previous goal set by the Commission for the period 2005 to 2014. Table 6 below shows the magnitude of the increase in FPL’s savings goals. The challenge then becomes determining criteria for what constitutes “undue” rate impact, as required by Section 366.82 (7), F.S.

Table 6
Modified Plan Goals Comparison

2005-2014 Goals			2010-2019 Goals			% Change		
Summer (MW)	Winter (MW)	Energy (GWH)	Summer (MW)	Winter (MW)	Energy (GWH)	Summer (MW)	Winter (MW)	Energy (GWH)
801.70	512.40	1,058.60	1,497.7	605.3	3,082	86.8%	18.1%	191.1%

When setting conservation goals, there are two basic components to a rate impact: ECCR and base rates. The costs to implement a DSM program consist of administrative, equipment, and incentive payments to the participants, which is recovered by the Company through the ECCR clause proceeding. This clause represents a monthly bill impact to customers as part of the non-fuel cost of energy on their bill. If a program passes the E-TRC test it is cost-effective from a system basis. However, utility incentive payments are not included in the E-TRC test but are recovered through the utility’s ECCR factor and have an immediate impact on customer rates.

As shown in Table 7, for a residential customer using 1,200 kWh per month, the impact to the ECCR clause is projected to increase from the current level of \$2.26/month to a peak level of \$4.11/month in 2014, assuming all other factors remain constant. In comparing Tables 6 and 7, the percentage increase in rates is significantly lower than the percentage increase in energy goals. While the rate impact of FPL’s Modified Plan appears to nearly double, the annual energy savings is projected to nearly triple.

Table 7
 Modified Plan Estimated Rate Impact

Year		ECCR Revenue Requirement	Rate Impact (\$/Mo.)	% Increase
Current		\$179,713,960	\$2.26	-
Projected	2011	\$305,553,046	\$3.70	63.7%
	2014	\$356,396,522	\$4.11	81.9%
	2019	\$274,289,223	\$2.91	28.8%
Current Rates refer to those established in Docket 090002				
Rate impact assumes a residential customer with 1,200 kWh/Mo. usage				

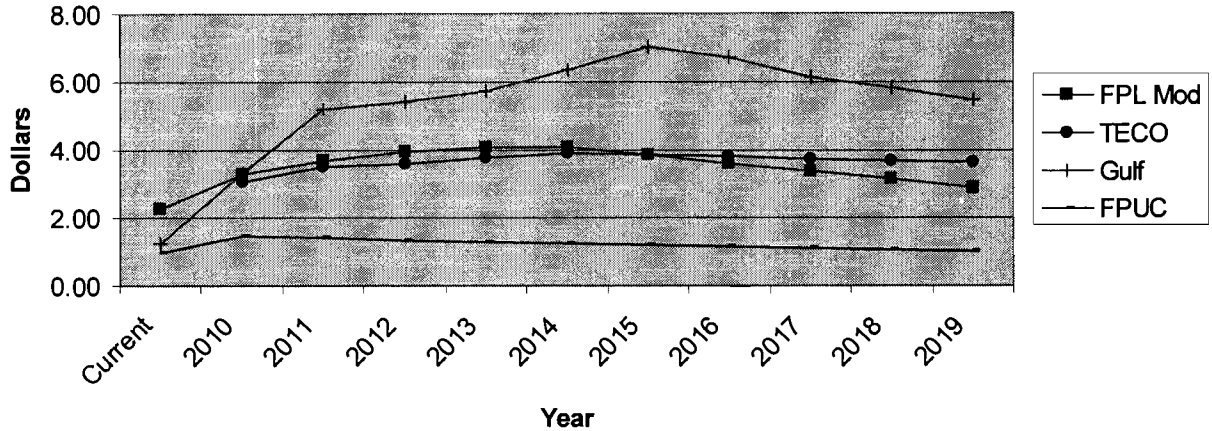
Much like investments in generation, transmission, and distribution, investments in energy efficiency have an immediate rate impact but produce savings over time. Table 8 shows the ECCR Expenditures and Rate Impact on a typical residential customer's bill under the Modified Plan over ten years. The monthly bill impact of FPL's ECCR factor would range from \$3.70 in 2011 (3.08 percent of the entire bill) to \$4.11 (3.41 percent of the bill) in 2014, when the Commission is due to revisit the conservation goals as required by Section 366.82(6), F.S.

Table 8
 Estimated Rate Impact of FPL's Modified Plan
 (1,200 kWh Residential Bill)

Year	ECCR Component (\$/Mo.)	Estimated Residential Bill (\$/Mo.)	Percent of Bill (% Bill)
Current	\$2.26	\$116.33	1.94%
2011	\$3.70	\$120.03	3.08%
2012	\$3.94	\$120.27	3.28%
2013	\$4.07	\$120.40	3.38%
2014	\$4.11	\$120.44	3.41%
2015	\$3.86	\$120.19	3.21%
2016	\$3.62	\$119.95	3.02%
2017	\$3.36	\$119.69	2.81%
2018	\$3.14	\$119.47	2.63%
2019	\$2.91	\$119.24	2.44%

Another method of assessing whether the costs of FPL's DSM Plans create an "undue" rate impact is a simple comparison of DSM rate impacts from other IOUs, which the Commission has already approved. As Table 9 shows, the ECCR impact of FPL's Modified Plan is well below Gulf Power's and nearly equivalent to TECO's, both previously approved by the Commission.

Table 9
 ECCR Impact @ 1,200 Kwh



While not immediately applied to customer’s bills, energy saving DSM programs can also have an impact on a utility’s base rates. When revenues go down because fewer kWh were consumed, the utility may have to make up the difference by requesting an increase in rates to maintain a reasonable Return on Equity (ROE). If a company’s ROE falls below the 100 basis point range authorized by the Commission, the utility may file a petition with the Commission for a rate increase. Table 10 below shows that based on FPL’s Modified Plan projections, the Company’s lost revenue from energy savings will not have a basis point impact of more than 100 points until 2016, two years after the next goal-setting proceeding.

Table 10
 FPL Basis Point Impact of Goals
 Modified Plan

Year	Lost Revenue (\$000)	Basis Points
2010	5,133.8	3.9
2011	18,900.7	14.5
2012	39,964.8	30.7
2013	63,568.6	48.9
2014	91,409.8	70.3
2015	119,224.8	91.7
2016	141,685.2	109.0
2017	164,320.2	126.4
2018	188,692.1	145.1
2019	208,114.1	160.1

Staff notes that FPL’s Modified DSM Plan includes a variety of programs that would allow participation by a wide spectrum of customer groups, including low-income, residential, and commercial customers. While rates may increase due to additional DSM programs, customers should be able to reduce or eliminate the potential rate impact of FPL’s Modified DSM Plan by participating in a DSM program. Since most of FPL’s proposed programs also pass the E-RIM test, non-participating customers are expected to realize long-term savings as well.

Alternate Plan

While not formally requested as part of its petition, FPL included an “Alternate Plan” in its revised DSM Plan filing. FPL proposed its Alternate Plan as a means of reducing customer rate impact with a plan intended to meet the goals FPL proposed in the goal-setting proceeding. The Commission rejected FPL’s proposed goals in that proceeding.¹¹ Table 11 below lists the Alternate Plan’s program changes as compared to the Modified Plan.

Table 11
 Revised Programs in FPL's Alternate Plan

Residential Programs	Program Changes
1. Residential Low Income Energy Efficiency Retrofit	Program deleted
2. Residential Building Envelope	Deleted solar window screen measure
3. Residential New Construction (BuildSmart)	Deleted ENERGY STAR for new homes measure
4. Residential AC Tune-up & Maintenance	Program deleted
5. Residential Refrigerator Replacement	Program deleted
Commercial/Industrial	Program Changes
1. Business Heating, Ventilation & Air Conditioning	Deleted Variable Frequency Drive for Chillers measure
2. Business Lighting	Deleted Light-Emitting Diode Exit Signs measure
3. Business Refrigeration	Deleted Compressor VFD Retrofit measure Deleted Evaporator Fan Controller measure Deleted Electronically Commutated Motors measure Deleted Oversized Air-Cooled Condensers measure
4. Business Motors	Program deleted

The Alternate Plan would substantially fail to meet Commission-established goals in all years, except the commercial/industrial summer demand and annual energy goals in 2019 and winter demand in all years. Tables 12 and 13 below display savings from the Alternate Plan compared to goals established by the Commission. The tables highlight and bold print projected savings which fail to meet the Commission-established goals.

¹¹ See Order No. PSC-09-0855-FOF-EG, issued December 30, 2009, in Docket No. 080407-EG, In re: Commission review of numeric conservation goals (Florida Power & Light Company).

Table 12
 Comparison of Residential Goals to Alternate Plan Savings

Year	Summer (MW)		Winter (MW)		Annual Energy (GWh)	
	Commission Goals	Alternate Plan	Commission Goals	Alternate Plan	Commission Goals	Alternate Plan
2011	79.7	29.2	42.4	27.6	145.8	45.7
2012	90.2	28.8	50.3	27.2	168.8	45.4
2013	98.5	28.7	56.3	27.2	186.7	45.0
2014	104.3	28.7	60.2	27.1	200.0	45.0
2015	100.7	28.7	55.9	27.1	193.0	38.6
2016	95.9	28.7	51.3	27.1	183.4	38.6
2017	91.4	28.7	47.0	27.1	174.2	38.6
2018	87.4	28.7	43.2	27.1	166.4	38.6
2019	83.3	29.1	39.4	27.1	157.5	39.3
Total	831.4	259.3	446.0	244.6	1,575.8	374.8

Table 13
 Comparison of Commercial/Industrial Goals to Alternate Plan Savings

Year	Summer (MW)		Winter (MW)		Annual Energy (GWh)	
	Commission Goals	Alternate Plan	Commission Goals	Alternate Plan	Commission Goals	Alternate Plan
2011	62.5	36.6	9.9	24.1	149.4	44.5
2012	76.3	37.0	11.6	24.3	191.5	47.6
2013	81.3	37.0	13.1	24.3	202.7	49.3
2014	79.3	37.1	14.4	23.0	194.1	58.5
2015	71.5	37.0	15.1	21.9	167.5	58.9
2016	60.0	37.6	15.0	24.5	134.2	64.2
2017	48.7	38.0	14.1	27.5	104.8	68.5
2018	41.3	39.2	13.2	26.6	86.9	77.1
2019	35.0	40.1	12.0	27.7	71.0	81.8
Total	555.9	339.6	118.4	223.9	1,302.1	550.4

Since the Modified Plan meets the Commission-approved goals, is cost-effective, and does not have an undue rate impact, staff recommends the Commission need not consider the Alternate Plan which does not meet the Commission's established goals.

Program Standards

Most programs have an administrative component that describes the eligibility requirements, billing practices, etc. Historically, this information is provided to staff, for administrative approval, after a program has been approved by the Commission. Therefore, FPL should file its program standards for all its programs, for administrative approval, within 30 days of the Commission's Consummating Order in this docket.

Conclusion

FPL's Modified Plan meets or exceeds the Company's numeric conservation goals. The Commission should approve FPL's Modified Plan because it is projected to achieve all goals, all programs in the Modified Plan pass cost-effectiveness testing, and the Modified Plan does not create an undue rate impact. Therefore, the Alternate DSM Plan should not be approved.

Issue 2: Should this docket be closed?

Recommendation: Yes. If no person whose substantial interests are affected by the proposed agency action issue files a protest within 21 days of the issuance of the Order, a Consummating Order will be issued. If the Commission approves any programs, the programs should become effective on the date of the Consummating Order. If a protest is filed within 21 days of the issuance of the Order, the programs should not be implemented until after the resolution of the protest. However, the docket should remain open for staff's verification that the program standards have been filed by the Utility and approved by staff. When the PAA issues are final and the program standards have been approved, this docket may be closed administratively. (Harris)

Staff Analysis: If no person whose substantial interests are affected by the proposed agency action issue files a protest within 21 days of the issuance of the Order, a Consummating Order will be issued. If the Commission approves any programs, the programs should become effective on the date of the Consummating Order. If a protest is filed within 21 days of the issuance of the Order, the programs should not be implemented until after the resolution of the protest. However, the docket should remain open for staff's verification that the program standards have been filed by the Utility and approved by staff. When the PAA issues are final and the program standards have been approved, this docket may be closed administratively.

**Florida Power & Light
2011 Demand-Side Management Plan Programs**

Residential Low Income Portfolio:

1. *Residential Low Income Weatherization:* The Residential Low Income Weatherization Program is designed to reduce energy consumption and growth of coincidental peak demand by partnering with government and non-profit agencies to assist eligible low income FPL residential customers to reduce the cost of heating and cooling their homes. The program employs a combination of energy audits and incentives for room air conditioners, central air-conditioning maintenance and reduced air infiltration. FPL is revising the maximum incentives by measures as follows:
 - Air-conditioning unit maintenance from \$45 per participant to \$190 per participant.
 - Reduced air infiltration from \$60 per participant to \$75 per participant.
 - Room air conditioner replacement from \$25 per participant to \$350 per participant.
2. *Residential Low Income Energy Survey:* The Residential Power Savers Energy Audit Program is designed to reduce energy consumption and growth of coincident peak demand by offering home energy audits and an energy efficiency kit to customers. The home energy audit is a walk through audit and the energy efficiency kit includes compact fluorescent light bulbs, faucet aerators, low flow shower heads and water heater pipe insulation. Incentives for the individual measures in this program will be set up to full participant cost, regardless of the length of time to payback.
3. *Residential Low Income Energy Efficiency Retrofit:* The Residential Power Savers Energy Efficiency Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to implement recommendations resulting from the Residential Power Savers Energy Audit or other FPL-approved home energy audit. The measures included are: room air-conditioner replacement, refrigerator replacement, ceiling insulation, air-conditioning duct repair, and air-conditioning unit maintenance. Incentives for the individual measures in this program will be set up to full participant cost, regardless of the length of time to payback. This program is omitted in the Alternate Plan.

Residential Portfolio:

1. *Residential Home Energy Survey:* The Residential Home Energy Survey Program, formerly known as the Residential Conservation Service Program, is designed to reduce energy consumption and growth of coincident peak demand by offering home energy surveys to customers. This objective is accomplished by educating customers on energy efficiency and encouraging customers to perform recommended practices and measures, even if they are not included in FPL's DSM Plan. The energy survey is also used to identify customers for other residential incentive programs dependant upon survey findings. There are three types of home energy surveys available: Home Energy Survey,

which is a walk-through survey performed by an FPL representative in the customer's home; Phone Energy Survey, which is performed by an FPL representative with information provided by the customer over the phone; and, Online Home Energy Survey, which is performed by the customer using an FPL provided online survey. The energy survey helps to determine which practices and measures are most appropriate for a particular dwelling, and which measures may qualify for FPL incentives from other residential incentive programs.

2. *Residential Air Conditioning*: The Residential Air Conditioning Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install high-efficiency central air conditioning (AC) systems. The primary types of eligible AC systems include: straight cool and heat pumps. FPL is revising the maximum incentives by measures as follows:
 - Straight Cool AC units -from \$1,429 to \$1,444 per summer kW.
 - Heat Pump AC units -from \$1,643 to \$1,426 per summer kW.
 - Supplemental Verified Sizing Calculations -from \$272 to \$563 per summer kW.
 - Plenum Seal -from \$309 to \$611 per summer kW.
3. *Residential Duct System Testing & Repair*: The Residential Duct System Testing & Repair Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to repair air leaks identified in air-conditioning duct systems. FPL is revising the maximum incentive from \$466 to \$905 per summer kW.
4. *Residential Building Envelope*: The Residential Building Envelope Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to improve the thermal efficiency of the building structure. The measures included are: ceiling insulation; reflective roof replacement or coating; and, solar window screen. FPL is adding one new measure with the following maximum incentive:
 - Solar Window Screen -\$345 per summer kW.FPL is revising the maximum incentive by measures as follows:
 - Ceiling Insulation -from \$1,676 to \$1,877 per summer kW.
 - Reflective Roof Coating -from \$1,518 to \$1,367 per summer kW.
 - Reflective Roof Replacement -from \$706 to \$773 per summer kW.
5. *Residential New Construction (BuildSmart®)*: The Residential New Construction Program (BuildSmart®) is designed to reduce energy consumption and growth of coincident peak demand through the design and construction of energy-efficient homes. The program will encourage builders and developers to achieve the ENERGY STAR® qualification. FPL is adding a maximum incentive of \$1,286 per summer kW.

6. *Residential Load Management (On Call)*: The On Call program is a voluntary program primarily used to reduce the summer and winter coincident peak demand and energy by turning off customers' appliances for varying durations. Load control equipment is installed at selected customer end-use equipment, allowing FPL to control these loads. Customers receive an incentive payment, in the form of a monthly credit on their bill. The incentive amount is dependent on the control cycle and appliances, selected by the customer, which are connected to the load control equipment installed. These appliances include central air-conditioning, central electric heating, electric water heaters and pool pumps.
7. *Residential Air-Conditioning (AC) Tune-up & Maintenance*: The Residential Air-Conditioning (AC) Tune-up & Maintenance Program is a new program designed to reduce energy consumption and growth of coincident peak demand attributable to central AC equipment by encouraging customers to have an AC unit tune-up and maintenance performed. Incentive will be provided on a per AC unit basis up to a maximum incentive of \$219 per summer kW. This program is omitted in the Alternate Plan.
8. *Residential Refrigerator Replacement*: The Residential Refrigerator Replacement Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install high-efficiency ENERGY STAR® refrigerators. Incentives will be paid to customers for ENERGY STAR® refrigerators that are 20% more efficient than the Department of Energy Appliance Standards program code. The incentive will be provided on a per qualifying refrigerator basis up to a maximum incentive of \$2,354 per summer kW, or approximately \$50-\$75 per participant. This program is omitted in the Alternate Plan.

Commercial/Industry Portfolio:

1. *Business Energy Evaluation*: The Business Energy Evaluation (BEE) Program is designed to reduce energy consumption and growth of coincident peak demand by offering energy audits (BEEs) to business customers. This objective is accomplished by educating customers on energy efficiency and encouraging customers to perform recommended practices and measures. The BEE is also used to qualify customers for other business incentive programs dependent upon audit findings. There are two types of BEEs available: the in-field BEE, which is an energy audit performed by an FPL representative in the customer's facility; and the online BEE (OBEE), which is performed by the customer using an FPL-provided OBEE survey. The BEE helps to determine which practices and measures are most appropriate for a particular facility and which measures may qualify for FPL incentives from other business incentive programs.
2. *Business Heating, Ventilating & Air-Conditioning*: The Business Heating, Ventilating & Air-Conditioning (HVAC) Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install high-efficiency HVAC systems. The primary types of eligible HVAC systems include: thermal energy storage (TES); chillers; split/package direct expansion (DX); electronically commutated motor (ECM) for DX; energy recovery ventilator (ERV); demand control ventilation (DCV) for

both HVAC and kitchen hood applications; and, variable frequency drives (VFD) for chillers. FPL is adding one new measure with a maximum incentive as follows:

- VFD for chillers -\$472 per summer kW.

FPL is revising the maximum incentives for measures as follows:

- TES -from \$898 to \$720 per summer kW.
- Chillers -from \$99 to \$574 per summer kW.
- DX -from \$168 to \$1,100 per summer kW.
- ECM for DX -from \$102 to \$808 per summer kW.
- ERV -from \$417 to \$3,323 per summer kW.
- DCV for HVAC applications -from \$627 to \$3,536 per summer kW.
- DCV for kitchen hood applications -from \$627 to \$2,027 per summer kW.

3. *Business Lighting:* The Business Lighting Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install high-efficiency lighting systems. The primary types of eligible lighting systems include premium linear fluorescents with high efficiency electronic ballasts, compact fluorescent lights (CFL), pulse-start metal halides (PSMH), and light-emitting diode (LED) exit signs. FPL is expanding eligibility of this program to include new construction customers. FPL is adding one new measure with a maximum incentive as follows:

- LED exit signs -\$101 per summer kW

FPL is revising the maximum incentives for measures as follows:

- Premium linear fluorescents with high efficiency electronic ballasts -from \$132 to \$478 per summer kW
- CFL -from \$132 to \$349 per summer kW
- PSMH -from \$132 to \$297 per summer kW

4. *Business Refrigeration:* The Business Refrigeration Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install high-efficiency refrigeration systems. The primary types of eligible refrigeration systems include anti-sweat heat controls, special doors with low or no anti-sweat heat, hot gas reclaim on freezer doors, compressor variable frequency drive (VFD) retrofit, oversized air cooled condensers, electronically commutated motors (ECM), and evaporator fan

controller for medium temperature (MT) walk-in coolers. FPL is adding four new measures with maximum incentives as follows:

- Compressor VFD retrofit -\$910 per summer kW.
- Oversized air cooled condenser -\$347 per summer kW.
- ECM -\$808 per summer kW.
- Evaporator fan controller MT walk-in coolers -\$812 per summer kW.

FPL is revising the maximum incentives for measures as follows:

- Anti-sweat heat controls -from \$80 to \$230 per summer kW.
 - Special doors with low or no anti-sweat heat -from \$80 to \$754 per summer kW.
 - Hot gas reclaim -from \$80 to \$1,374 per summer kW.
5. *Business Building Envelope:* The Business Building Envelope Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install eligible building envelope measures. The primary types of eligible building envelope measures include ceiling insulation, roof insulation, window treatment, and reflective roofing. FPL is revising the maximum incentives by measures as follows:
- Ceiling insulation -from \$185 to \$527 per summer kW
 - Roof insulation -from \$219 to \$641 per summer kW
 - Window treatment -from \$429 to \$979 per summer kW
 - Reflective roofing -from \$579 to \$1,487 per summer kW
6. *Business Water Heating Program:* The Business Water Heating Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install high-efficiency water heating systems. The primary types of eligible water heating systems include heat recovery units (HRU) and heat pump water heaters (HPWH). FPL is revising the maximum incentives by measures as follows:
- HRU -from \$881 to \$2,832 per summer kW
 - • HPWH -from \$881 to \$1,413 per summer kW
7. *Business Custom Incentive:* The Business Custom Incentive Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install unique high-efficiency systems not covered by other FPL DSM programs. The primary types of custom measures include process improvement changes,

- process controls, efficient machinery, and other measures unique to industrial processes or business customers. FPL will calculate each individual incentive based on the differential between the customer-provided equipment specifications and the equivalent summer coincident peak kW for the specific technology under consideration.
8. *Cogeneration and Small Power Production:* FPL's Cogeneration and Small Power Production Program was established in order to implement and execute FPL's obligations to facilities defined as Qualifying Facilities (QF) under the Public Utility Regulatory Policies Act of 1978 (PURPA) and FPSC rules. A QF may be classified as either a cogeneration facility (Cogenerator) or a small power production facility (SPP). A Cogenerator is a facility which produces electric energy and forms of useful thermal energy (such as heat or steam) used for industrial, commercial, heating or cooling purposes, through the sequential use of energy. An SPP facility is one which is less than 80 MW and that produces electric energy using, as a primary source of fuel, biomass, waste, renewable resources or any combination thereof.
 9. *Business On Call:* The Business On Call Program, also referred to as the General Service Load Management Program, is a voluntary program primarily used to reduce the summer and winter coincident peak demand and energy by turning off customers' direct expansion central electric air-conditioning units. Load control equipment is installed at selected customer end-use equipment, allowing FPL to control these loads. Customers receive an incentive payment, in the form of a monthly credit on their bill. The incentive amount is dependent on the air-conditioning tonnage signed up by the customer, which is connected to the load control equipment.
 10. *Commercial/Industrial Demand Reduction:* The Commercial/Industrial Demand Reduction Program, also referred to as the Commercial/Industrial Demand Reduction Rider, is designed to reduce the growth of coincident peak demand by controlling customer loads of 200 kW or greater during periods of extreme demand, capacity shortages, or system emergencies. Participation in this program involves the installation of direct load control equipment to allow FPL to control customer loads. Customers receive an incentive payment in the form of a credit on their monthly bills. FPL will calculate all incentives based on the customer's average demand during controllable rating periods less the customer's contracted firm demand.
 11. *Commercial/Industrial Load Control:* The Commercial/Industrial Load Control Program is designed to reduce the growth of coincident peak demand by controlling customer loads of 200 kW or greater during periods of extreme demand, capacity shortages, or system emergencies. Participation in this program involves the installation of direct load control equipment to allow FPL to control customer loads. Participants in the CILC Program receive service under a lower rate in return for allowing FPL to control its load. FPL will calculate all incentives based on the customer's maximum demand, on-peak demand, and the contracted firm demand.
 12. *Business Motors:* The Business Motors Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to improve their motor efficiency primarily through the use of variable frequency drives (VFD). FPL will calculate each individual incentive based on the differential between the customer-provided equipment specifications and the equivalent summer coincident peak

kW baselines as derived from VFD – size of motor. This program is omitted in the Alternate Plan.

Solar Pilot Portfolio:

1. *Residential Solar Water Heating Pilot:* The Residential Solar Water Heating Pilot Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install solar water heating systems in residential homes. The primary components of an eligible solar water heating system include: a solar collector, mounting hardware, an 80 gallon water retention tank and associated plumbing, controls and sensors. FPL will offer up to a maximum of \$1,000 per installed solar water heating system.
2. *Residential Solar Water Heating (Low Income New Construction) Pilot:* The Residential Solar for Low Income New Construction (LINC) Pilot Program is designed to reduce energy consumption and growth of coincident peak demand, increase the efficiency of low income housing, and demonstrate the practical application of solar water heating in residential new construction by providing solar water heating systems to selected low income housing developments throughout the FPL territory. The primary components of eligible solar water heating systems include: a solar collector, mounting hardware, an 80 gallon water retention tank, and associated plumbing, controls, and sensors. The selected houses will receive an installed solar water heating system.
3. *Business Solar Water Heating Pilot:* The Business Solar Water Heating Pilot Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install solar water heating systems in businesses. The primary components of eligible solar water heating systems include: solar collectors, mounting hardware, a water retention tank, and associated plumbing, controls, and sensors. FPL will offer up to a maximum of \$30 per 1,000 BTU/h/day of the maximum rated output of the installed solar water heating system.
4. *Residential Photovoltaic Pilot:* The Residential Photovoltaic Pilot Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install photovoltaic systems in residential homes. The primary components of eligible photovoltaic systems include: various photovoltaic panels, mounting hardware, electric inverter, cabling, a disconnect device for systems greater than 10 kW direct current (dc), and optional backup battery systems. FPL will offer up to a maximum incentive of \$2,000 per the rated kWdc of the installed photovoltaic panels.
5. *Business Photovoltaic Pilot:* The Business Photovoltaic Pilot Program is designed to reduce energy consumption and growth of coincident peak demand by encouraging customers to install photovoltaic systems. The primary components of eligible photovoltaic systems includes: PV modules, mounting hardware, electric inverters, optional battery systems, associated cabling, and a disconnect device for systems greater than 10 kWdc. FPL will offer up to a maximum incentive of \$2,000 per the rated kW dc of the installed photovoltaic panels.

6. *Business Photovoltaic for Schools Pilot:* The Photovoltaic for Schools Pilot Program is designed to reduce energy consumption and growth of coincident peak demand and demonstrate and educate future generations on the practical application of photovoltaic by providing PV systems and educational materials for selected schools in all public school districts throughout the FPL territory. The primary components that will be offered per installed system include: photovoltaic panels, with inverter, mounting hardware, controls, and sensors; classroom educational materials; system monitoring and comparison tools; and, training for teachers and facility personnel. The selected schools will receive an installed PV system.
7. *Renewable Research and Demonstration Project:* FPL is proposing to conduct a series of demonstration and renewable technology research projects to increase awareness of solar technologies and to understand and quantify the energy effectiveness of emerging renewable technologies and their applications. FPL is proposing to accomplish this through three primary activities: partnering with universities and technical centers to increase the accessibility to renewable technology education for contractors, building officials, FPL personnel, and the general public; installing small scale solar technologies at public non-profit and government facilities which can accommodate educational displays and materials; and, partnering with universities to test new applications and new emerging renewable energy technologies in order to quantify benefits to customers and establish energy performance profiles.

Research and Development Projects:

1. *Conservation Research and Development:* The purpose of the Conservation Research and Development Program is to identify new energy efficient technologies, evaluate and quantify their impacts on energy, demand and customers and where appropriate, develop emerging technologies into DSM programs. FPL will continue such activities under this Plan. Such efforts are an integral part of FPL's strategy to achieve the goals established for FPL in the recent conservation goals proceeding. These efforts will examine a wide variety of technologies, building on prior FPL research, where applicable, and expanding the research to new and promising technologies as they emerge.
2. *Residential Two-Story Home Wind Washing Research Project:* FPL is proposing to conduct a research project to measure the effects on energy consumption and the growth of coincident peak demand from inspecting and repairing two story homes which have air spaces between floors open to infiltration of outside air between the first and second stories. This research project will provide the data essential for evaluating this practice as a permanent component of the Company's DSM plan.
3. *Residential Proactive Energy Information Communications Research Project:* FPL is proposing to conduct a research project to measure the effects on energy consumption and coincident peak demand over time when providing customers proactive periodic personalized energy reports and tips. This research project will provide the data essential for evaluating this practice as a permanent component of the Company's DSM plan.
4. *Business Building Retro-Commissioning Research Project:* FPL is proposing to conduct a research project to measure the effects on energy consumption and the growth of

coincident peak demand from Building Retro-Commissioning (BRC). BRC is a process of investigating, analyzing, and optimizing the performance of existing building systems. This research project will provide the data essential for evaluating this practice as a permanent component of the Company's DSM plan. This program is unique in that it targets optimizing performance of existing energy consuming systems as compared with other energy and demand saving programs which focus on system replacements or additions.