

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for approval of demand-side management plan of Florida Power & Light Company.

DOCKET NO. 100155-EG
ORDER NO. PSC-11-0079-PAA-EG
ISSUED: January 31, 2011

The following Commissioners participated in the disposition of this matter:

ART GRAHAM, Chairman
LISA POLAK EDGAR
RONALD A. BRISÉ
EDUARDO BALBIS
JULIE I. BROWN

NOTICE OF PROPOSED AGENCY ACTION ORDER
DENYING DEMAND-SIDE MANAGEMENT PLAN AND
APPROVING SOLAR PILOT PROGRAMS

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code (F.A.C.)

BACKGROUND

As required by the Florida Energy Efficiency and Conservation Act (FEECA), Sections 366.80 through 366.85 and 403.519, Florida Statutes (F.S.), we adopted annual goals for seasonal peak demand and annual energy consumption for the FEECA Utilities. These include Florida Power & Light Company (FPL), Progress Energy Florida, Inc. (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, F.A.C., in any conservation goal setting proceeding, we require each FEECA utility to submit cost-effectiveness information based on, at a minimum, three tests: (1) the Participants Test; (2) the 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, we established conservation goals based on measures that pass both the Participants Test and the RIM Test.

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FPSC-COMMISSION CLERK

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 we 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 subject to FEECA were authorized to spend up to 10 percent of their historic expenditures through the Energy --water heating (Thermal) and solar photovoltaic (PV) installations.

On January 14, 2010, FPL filed a Motion for Reconsideration of our decision in Docket No. 080407-EI. Order No. PSC-10-0198-FOF-EG² denied FPL's Motion for Reconsideration. 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 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 responses to SACE's comments.

We have jurisdiction over this matter pursuant to Sections 366.80 through 366.85 and 403.519, F.S.

DEMAND-SIDE MANAGEMENT PLAN

By Order No. PSC-09-0855-FOF-EG, we established annual goals for the FEECA Utilities for the period 2010 through 2019. FPL's approved goals are divided into residential and commercial/industrial, with each of these further subdivided into three categories: summer peak demand, winter peak demand, and annual energy consumption. FPL is responsible for meeting its required conservation goals, yet the projections provided by the Company show that they plan to fail.

Order No. PSC-09-0855-FOF-EG set annual, not aggregate or cumulative, goals for conservation in a total of six areas. As detailed below in Table 1, FPL's proposed DSM Plan fails to meet its annual residential goals in at least one category for six years. Similarly, Table 2 shows that FPL's Plan does not meet all the annual commercial/industrial goals for six years of the ten-year period.

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).

Table 1
 Comparison of Residential Goals to DSM Plan

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
2010	67.7	73.8	33.2	44.5	119.6	119.3
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	95.7	56.3	60.4	186.7	188.6
2014	104.3	102.6	60.2	63.8	200.0	201.8
2015	100.7	101.5	55.9	61.6	193.0	192.6
2016	95.9	98.3	51.3	59.3	183.4	186.1
2017	91.4	92.1	47.0	56.6	174.2	173.7
2018	87.4	88.8	43.2	51.8	166.4	167.2
2019	83.3	82.6	39.4	44.9	157.5	157.0
Total	899.1	911.9	479.0	560.3	1,695.3	1,703.6

Table 2
 Comparison of Commercial/Industrial Goals to DSM Plan

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
2010	42.7	44.2	8.1	43.7	84.7	83.7
2011	62.5	66.4	9.9	43.8	149.4	155.5
2012	76.3	74.0	11.6	51.6	191.5	202.1
2013	81.3	79.7	13.1	53.8	202.7	222.7
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	61.1	15.0	42.7	134.2	120.6
2017	48.7	46.3	14.1	39.0	104.8	78.4
2018	41.3	41.0	13.2	39.7	86.9	70.1
2019	35.0	36.2	12.0	40.3	71.0	62.4
Total	598.7	599.8	126.3	461.1	1,386.7	1,403.9

FPL's proposed DSM Plan does not satisfy the Company's annual numeric goals set by this Commission. It appears that FPL will not meet the annual goals which may result in financial penalties or other appropriate action by this Commission. Therefore, consistent with Section 366.82(7), F.S., we find that FPL shall file specific program modifications or additions

that are needed for the 2010 DSM Plan to be in compliance with Order No. PSC-09-0855-FOF-EG within 30 days of the issuance of the Consummating Order. In Order No. No. PSC-09-0855-FOF-EG we directed the utilities to file pilot programs focused on encouraging solar water heating and solar PV technologies. As part of its DSM filing, FPL included savings from its solar pilot programs to meet its summer and winter peak demand and energy goals. Because the solar pilot programs were mandated by this Commission, the compliance filing shall also include savings associated with FPL's solar pilot programs.

As previously stated, FPL's proposed DSM Plan does not satisfy the Company's numeric conservation goals set forth in Order No. PSC-09-0855-FOF-EG; therefore, FPL shall file a modified DSM Plan. We are not approving any additional DSM programs at this time. We will evaluate and make a final determination regarding the cost-effectiveness of any new or modified programs when we review FPL's modified DSM Plan. As part of its filing, to the extent possible, FPL shall provide information on the estimated job creation impact for each program of the modified DSM plan.

SOLAR PILOT PROGRAMS

Section 366.82(2), F.S. requires us to establish goals for demand-side renewable energy systems. In order to meet the intent of the Legislature, we directed the utilities to file pilot programs focusing on encouraging solar water heating and solar PV technologies in Order No. PSC-09-0855-FOF-EG. This Order also directed the IOUs to file pilot programs focused on encouraging solar water heating and solar PV technologies subject to an expenditure cap of 10 percent of the average annual recovery through the ECCR clause in the previous 5 years. The Commission-approved annual expense cap for FPL is \$15,536,870. The projected annual expenditures for FPL's pilot programs do not exceed the approved annual expense cap as shown in Table 3 below.

Table 3
 Solar Pilot Program Costs

Program Name	First Full Year Expenditures (\$)	First Full Year Percentage of Annual Expenditure Cap (%)
Residential Solar Water Heating	\$4,330,175	27.9%
Residential Solar Water Heating (Low Income New Construction)	\$848,437	5.5%
Business Solar Water Heating	\$73,198	0.5%
Residential Photovoltaics	\$2,491,855	16.0%
Business Photovoltaics	\$1,885,252	12.1%
Business Photovoltaics for Schools	\$1,347,755	8.7%
Solar Research and Demonstration	\$0	0.0%
Administrative & Education/Marketing Costs	\$3,001,407	19.3%
Total	\$13,978,079	90.0%

As a pilot program, the utility shall collect information relating to customer acceptance rates, energy production, and other data to refine potential future program offerings for solar renewable technologies. FPL proposed six pilot programs and one research and development program to encourage the development of solar water heating and solar PV technologies. Each program is for a period of five years. A summary of each is provided below:

Residential Solar Water Heating Pilot – This program encourages customers to install solar water heating systems in residential homes. FPL will offer up to a maximum of \$1,000 per installed solar water heating system. The Company projects participation by 4,970 customers.

Residential Solar Water Heating (Low Income New Construction) Pilot – This program will provide solar water heating systems to selected low income, new construction housing developments. The selected houses will receive an installed solar water heating system at no cost to the customer. FPL plans to install 200 systems throughout its service territory.

Business Solar Water Heating Pilot – This program encourages customers to install solar water heating systems in businesses. FPL will offer up to a maximum of \$30 per 1,000 BTU/day of the maximum rated output of the installed solar water heating system. The Company expects 76 participants.

Residential Photovoltaic Pilot – This program encourages customers to install photovoltaic systems in residential homes. FPL will offer a maximum incentive of \$2,000 per the rated kW (\$2/watt) of the installed photovoltaic panels. Participation is projected to be 340 customers.

Business Photovoltaic Pilot – This program encourages business customers to install photovoltaic systems. FPL will offer a maximum incentive of \$2,000 per the rated kW (\$2/watt) of the installed photovoltaic panels. FPL projects 79 participants.

Business Photovoltaic for Schools Pilot – This program is designed to provide PV systems and educational materials for selected schools in all public school districts throughout the FPL territory. The selected schools will receive an installed PV system at no cost to the school. Installations will be performed in 21 schools.

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: (1) partnering with universities and technical centers to increase the accessibility to renewable technology education for contractors, building officials, FPL personnel, and the general public; (2) installing small scale solar technologies at public non-profit and government facilities which can accommodate educational displays and materials; and, (3) partnering with universities to test new applications and new emerging renewable energy technologies to quantify benefits to customers and establish energy performance profiles.

Allocation of Funds

Because the costs of these pilot programs are shared by all customers, our staff looked at whether or not the programs offered opportunities for participation by all customer classes. FPL offers programs for residential, low-income, commercial, and public facilities. The allocation of funds to each of the programs is listed above in Table 3. Our staff also looked at the allocation of funds between solar PV and solar water heating programs. As shown in Table 4, approximately 41 percent of the funding goes towards solar PV technology and 38 percent towards solar thermal installations.

Comparison With Other Utilities

Order No. PSC-09-0855-FOF-EG provided no guidance on how the annual expense cap was to be allocated. While each utility has complied with Order No. PSC-09-0855-FOF-EG, the renewable pilot programs of each of the IOUs varies in the weight it provides to the two major types of solar renewable resources, photovoltaics (PV) and thermal water heating, as outlined in the Table 4 below. However, all IOUs generally tend to allocate a greater percentage of funding to PV applications.

Table 4
 Percentage of Funds Allocated by Technology Type³

Company	FPL	PEF	TECO	GULF	FPUC
PV	41.0%	67.3%	86.7%	63.9%	Not Available
Thermal	37.6%	20.9%	13.3%	19.4%	
The percentages above do not sum to 100% as administrative, education, and R&D costs are excluded.					

The distribution of funds between solar installations intended for public facilities, such as schools, and privately owned facilities, including residential housing and commercial properties, is another area of variation among the utilities. Table 5 below, illustrates these differences, which overall favor private installations.

Table 5
 Percentage of Funds Allocated by Ownership Type

Company	FPL	PEF	TECO	GULF	FPUC
Public	9.6%	31.7%	10.4%	15.5%	Not Available
Private	68.9%	56.5%	89.6%	67.8%	
The percentages above do not sum to 100% due to administrative and education costs being excluded.					

³ Refer to Docket No. 100154-EG – In re: Petition of approval of demand-side management plan of Gulf Power Company. Docket No. 100155-EG – In re: Petition of approval of demand-side management plan of Florida Power & Light Company. Docket No. 100158-EG – In re: Petition of approval of demand-side management plan of Florida Public Utilities Company. Docket No. 100159-EG – In re: Petition of approval of demand-side management plan of Tampa Electric Company. Docket No. 100160-EG – In re: Petition of approval of demand-side management plan of Progress Energy Florida, Inc.

The variations between utilities represent different service territories and program designs. Because of the variations between the utilities, we direct our staff to conduct a workshop to address how the distribution of funds should be allocated and to determine the appropriate split between these technological and customer categories.

Conclusion

FPL's proposed DSM Plan includes pilot programs that encourage the development of solar water heating and solar PV technologies. The cost of the proposed pilot programs is within the annual expenditure cap specified by Order No. PSC-09-0855-FOF-EG. Accordingly, we find that the solar pilot programs included in FPL's proposed DSM Plan are hereby approved. However, the allocation of funds to: (1) solar thermal vs. solar PV, (2) private customers vs. public institutions, and (3) low-income residential varies widely among the investor-owned utilities. Therefore, we direct our staff to conduct a workshop to address how the distribution of funds should be allocated and to determine the appropriate split between these technological and customer categories.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that Florida Power & Light Company's Proposed Demand-Side Management Plan does not satisfy the numeric conservation goals set forth in Order No. PSC-09-0855-FOF-EG. It is further

ORDERED that Florida Power & Light Company shall file specific program modifications or additions that are needed in order for the 2010 DSM Plan to be in compliance with Order No. PSC-09-0855-FOF-EG. It is further

ORDERED that as part of its filing, to the extent possible, Florida Power & Light Company shall provide information on the estimated job creation impact for each program of the modified DSM plan. It is further

ORDERED that Florida Power & Light Company's solar pilot programs contained in its Proposed Demand-Side Management Plan are hereby approved as set forth herein. It is further

ORDERED that the solar pilot programs shall be effective on the date of the Consummating Order. It is further

ORDERED that all attachments contained herein are incorporated by reference. It is further

ORDERED that if a protest is filed, the solar pilot programs shall not be implemented until after resolution of the protest. It is further

ORDERED that the provisions of this Order, issued as proposed agency action, shall become final and effective upon the issuance of a Consummating Order unless an appropriate

petition, in the form provided by Rule 28-106.201, Florida Administrative Code, is received by the Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings" attached hereto. It is further

ORDERED that in the event this Order becomes final, this docket shall remain open in order for Florida Power & Light Company to refile its Demand-Side Management Plan within 30 days from the date of the Consummating Order.

By ORDER of the Florida Public Service Commission this 31st day of January, 2011.



ANN COLE
Commission Clerk

(S E A L)

KEF

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing that is available under Section 120.57, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This

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petition must be received by the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on February 21, 2011.

In the absence of such a petition, this order shall become final and effective upon the issuance of a Consummating Order.

Any objection or protest filed in this/these docket(s) before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

**Florida Power & Light
2010 Demand-side Management Plan Programs**

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 photo voltaic 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.