

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for approval of demand-side management plan of Progress Energy Florida, Inc. | DOCKET NO. 100160-EG
| ORDER NO. PSC-10-0605-PAA-EG
| ISSUED: October 4, 2010

The following Commissioners participated in the disposition of this matter:

NANCY ARGENZIANO, Chairman
LISA POLAK EDGAR
NATHAN A. SKOP
ART GRAHAM
RONALD A. BRISÉ

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, the Commission requires 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.

DOCUMENT NUMBER DATE

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FPSC-COMMISSION CLERK

The 2008 Legislative Session resulted in several changes to the FEECA Statute, and our 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 conservation 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 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 12, 2010, PEF filed a Motion for Reconsideration of our decision in Docket No. 080408-EG. Order No. PSC-10-0198-FOF-EG² granted, in part, PEF's reconsideration which revised PEF's numeric goals to correct a discovery response that caused a double-counting error. On March 30, 2010, PEF filed a petition requesting approval of its Demand-Side Management (DSM) Plan pursuant to Rule 25-17.0021, F.A.C.

The Florida Industrial Power Users Group (FIPUG) was granted leave to intervene on May 7, 2010.³ White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate – White Springs (PCS Phosphate) was granted leave to intervene on June 18, 2010.⁴ The Southern Alliance for Clean Energy (SACE) was granted leave to intervene on August 9, 2010.⁵ The Florida Solar Energy Industry Association (FlaSEIA) was granted leave to intervene on August 11, 2010.⁶ Wal-Mart Stores East, LP, and Sam's East, Inc. (Walmart) was granted leave to intervene on August 18, 2010.⁷

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

¹ See Order No. PSC-09-0855-FOF-EG, issued December 30, 2009, in Docket No. 080408-EG, In re: Commission review of numeric conservation goals (Progress Energy Florida, Inc.).

² See Order No. PSC-10-0198-FOF-EG, issued March 31, 2010, in Docket No. 080408-EG, In re: Commission review of numeric conservation goals (Progress Energy Florida, Inc.).

³ See Order No. PSC-10-0289-PCO-EG, issued May 7, 2010, in Docket No. 100160-EG, In re: Petition of approval of demand-side management plan of Progress Energy Florida, Inc. (FIPUG)

⁴ See Order No. PSC-10-0399-PCO-EG, issued June 18, 2010, in Docket No. 100160-EG, In re: Petition of approval of demand-side management plan of Progress Energy Florida, Inc. (PCS Phosphate)

⁵ See Order No. PSC-10-0498-PCO-EG, issued August 9, 2010, in Docket No. 100160-EG, In re: Petition of approval of demand-side management plan of Progress Energy Florida, Inc. (SACE)

⁶ See Order No. PSC-10-0509-PCO-EG, issued August 11, 2010, in Docket No. 100160-EG, In re: Petition of approval of demand-side management plan of Progress Energy Florida, Inc. (FlaSEIA)

⁷ See Order No. PSC-10-0529-PCO-EG, issued August 18, 2010, in Docket No. 100160-EG, In re: Petition of approval of demand-side management plan of Progress Energy Florida, Inc. (Walmart)

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. Order No. PSC-10-0198-FOF-EG granted, in part, PEF's reconsideration which revised PEF's numeric goals to correct a discovery response that caused a double-counting error. PEF's approved goals are divided into residential and commercial/industrial goals, with each of these further subdivided into three categories: summer peak demand, winter peak demand, and annual energy. PEF is responsible for meeting its required conservation goals, yet the projections provided by the Company show that they plan to fail in a number of years.

Order No. PSC-10-0198-FOF-EG set annual, not aggregate or cumulative, goals for conservation in a total of six areas. As detailed below in Table 1, PEF's proposed DSM Plan fails to meet its annual residential goals in any category for the first six years and its winter demand goals through year seven. Similarly, Table 2 shows that the Company's Plan does not meet all the annual commercial/industrial goals from 2010 through 2013.

Table 1 – Comparison of Residential Goals to DSM Plan

Year	Summer (MW)		Winter (MW)		Annual (GWh)	
	Commission Approved Goal	PEF Projected Savings	Commission Approved Goal	PEF Projected Savings	Commission Approved Goal	PEF Projected Savings
2010	79.6	47.5	81.3	64.2	261.6	97.9
2011	81.5	51.0	86.8	72.0	267.6	114.5
2012	84.5	57.2	90.8	76.2	276.7	137.2
2013	86.5	62.3	93.5	80.2	282.7	158.0
2014	88.4	66.4	96.2	84.1	288.8	173.6
2015	93.8	85.7	100.9	88.9	309.9	258.1
2016	102.3	111.2	111.7	107.7	297.8	335.3
2017	101.9	129.4	111.1	121.1	291.8	393.1
2018	96.4	147.4	103.6	133.2	279.7	478.8
2019	81.9	152.0	79.1	132.3	270.6	525.6
Total	896.6	909.9	955.1	959.9	2827.1	2672.1

Table 2 - Comparison of Commercial/Industrial Goals to DSM Plan

Year	Summer (MW)		Winter (MW)		Annual (GWh)	
	Commission Approved Goal	PEF Projected Savings	Commission Approved Goal	PEF Projected Savings	Commission Approved Goal	PEF Projected Savings
2010	13.7	14.4	5.3	8.7	31.1	24.5
2011	16.2	14.7	5.3	8.9	33.0	27.2
2012	25.5	24.1	11.4	11.3	35.9	37.9
2013	25.9	25.4	11.5	13.0	37.7	36.1
2014	26.4	29.0	11.5	16.2	39.6	47.0
2015	27.6	31.3	11.7	17.9	46.2	59.7
2016	27.1	33.5	11.6	18.4	42.5	69.6
2017	27.0	36.2	11.6	19.1	40.6	77.6
2018	25.7	37.6	11.4	18.0	36.8	85.1
2019	22.3	34.3	11.3	12.1	34.0	68.1
Total	237.3	280.5	102.6	143.6	377.4	532.6

PEF’s proposed DSM Plan does not satisfy the Company’s annual numeric goals set by this Commission. It appears that PEF will not meet its 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 PEF 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-10-0198-FOF-EG within 30 days of this Order. In Order No. PSC-09-0855-FOF-EG we directed the utilities to file pilot programs focusing on encouraging solar water heating and solar PV technologies. As part of its DSM filing, PEF included savings from its solar pilot program 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 PEF’s solar pilot programs.

As previously stated, since PEF’s proposed DSM Plan does not satisfy the Company’s numeric conservation goals set forth in Order No. PSC-09-0198-FOF-EG, PEF 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 PEF’s 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. Order No. PSC-09-0855-FOF-EG 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 Energy Conservation Cost Recovery clause in the previous five years. The approved annual expense cap for PEF is

\$6,467,592. The projected annual expenditures for PEF’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 (%)
Solar for Schools	\$2,050,000	31.7%
Commercial Solar Photovoltaics	\$977,500	15.1%
Residential Solar Photovoltaics	\$1,000,000	15.5%
Solar Water Heating for Low Income Residential	\$114,000	1.8%
Solar Water Heating with Energy Management	\$1,237,500	19.1%
Research & Demonstration	\$323,380	5.0%
Administrative & Education/Marketing Costs	\$635,826	9.8%
Total	\$6,338,206	98.0%

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. PEF’s demand-side renewable energy portfolio is comprised of the following pilot programs:

Solar Water Heating for Low Income Residential Customers – PEF will collaborate with non-profit builders to provide low-income families with a residential solar thermal water heater at no cost to the non-profit builders or the residential participants. The incentive is the total cost of the solar thermal system plus associated installation cost. Participation is expected to be about 30 homes per year.

Solar Water Heating with Energy Management – An existing program that has been enhanced by increasing the amount of the rebate to increase customer participation and collecting demographic information to support PEF’s marketing efforts and correlate anticipated energy savings to PEF’s residential end-use metering study. The program encourages residential customers to install new solar thermal water heating systems on their residence by combining incentives from two programs. Customers are required to participate in the residential demand response program and receive the associated monthly bill credit in addition to a one-time \$550 rebate to reduce the upfront cost of purchasing the renewable energy system. PEF projects about 2,250 homes will be participating in this program each year.

Residential Solar Photovoltaic – A program to reduce the initial investment required for a residential customer to install a new solar PV system on their home by providing a rebate of up to \$2.00/Watt up to a \$20,000 maximum. Customer is also required to participate in at least one existing residential energy efficiency measure. PEF expects about 100 homes per year will participate in this program.

Commercial Solar Photovoltaic – A program to reduce the initial investment required for a commercial customer to install a new solar PV system on their facility by providing a tiered

rebate based on the PV power rating up to: \$2.00/Watt for the first 10 kW; \$1.50/Watt for 11 - 50 kW; and, \$1.00/Watt for 51 – 100 kW. Customer is also required to participate in at least one commercial energy efficiency measure. Total incentives per participant will be limited to \$130,000 based on a maximum installation of 100 kW. PEF projects about 23 commercial customers will participate annually.

Photovoltaic for Schools – Participating schools receive a new PV system at no cost to the school. Schools enter an agreement by which PEF will install, own, operate and maintain the system for five years. Program participation is limited to an annual target of one system with a rating up to 100 kW installed on a post secondary public school and ten systems of 10 kW each with battery backup option installed on other public schools, with a preference for schools serving as emergency shelters. The program has an educational component that will be funded in part by customers participating in other PEF energy management programs that elect to contribute their monthly credit toward an energy education fund.

Research and Demonstration – A program designed to research renewable energy technologies and establish research and development initiatives to support the development of future solar and renewable energy pilot programs. Program is limited to a targeted annual expenditure cap of \$323,000. The number of projects that will be proposed for investigation within this program each year is unknown at this time.

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. PEF 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 67 percent of the funding goes towards solar PV technology and 21 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 (Thermal), 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 Type⁸

Company	FPL	PEF	PEF	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	PEF	GULF	FPUC
Public	7.2%	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.					

The variations between the utilities' plans 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.

Conclusion

PEF's proposed DSM Plan includes pilot programs to 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 PEF's proposed DSM Plan are hereby approved and shall be incorporated into the compliance filing. However, the allocation of funds to: (1) solar thermal versus solar PV, (2) private customers versus 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.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that Progress Energy Florida, Inc.'s Proposed Demand-Side Management Plan does not satisfy the numeric conservation goals set forth in Order No. PSC-09-0198-FOF-EG. It is further

⁸ 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.

ORDERED that Progress Energy Florida, Inc. 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-09-0198-FOF-EG within 30 days of this Order. It is further

ORDERED that Progress Energy Florida, Inc.'s solar pilot programs contained in its Proposed Demand-Side Management Plan are hereby approved as set forth herein. It is further

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

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

ORDERED that if a protest is filed, the solar pilot programs shall not be implemented until after the 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 Progress Energy Florida, Inc. to refile its Demand-Side Management Plan within 30 days from the date of this Order.

By ORDER of the Florida Public Service Commission this 4th day of October, 2010.



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 petition must be received by the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on October 25, 2010.

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.

Description of PEF's DSM Portfolio

RENEWABLE PORTFOLIO:

The six programs in this portfolio are designed to emphasize the benefits of solar photovoltaic technology and encourage the development of renewable programs, with a focus on low income and education pilots. The programs will be implemented over a five year period.

Solar Water Heating for Low-income Residential Customers PEF will collaborate with non-profit builders to provide low-income families with a residential solar thermal water heater while the home is under construction. The solar thermal system will be provided at no cost to the non-profit builders or the residential participants. The incentive for this program is the total cost of the solar thermal system plus the associated installation cost.

Solar Water Heating with Energy Management Encourages residential customers to install new solar thermal water heating systems. This program incorporates a long standing cost effective Demand Side Management program with the requirement for customers to participate in our residential demand response program. Participants will receive a one-time \$550 rebate designed to reduce the upfront cost of the renewable energy system and will also receive a monthly bill credit for participating in the residential demand response program. This program was designed with the support and input of the solar industry. The program will record participant occupancy levels to capture the most accurate energy savings. The program will be limited to a targeted annual incentive cap of \$1,237,500.

Residential Solar Photovoltaic This pilot promotes the installation of renewable energy systems by reducing the participating customer's initial investment. The program requires participants to also participate in at least one residential energy efficiency measure. Participating customers receive a rebate of up to \$2.00 per Watt of the PV dc power rating up to a \$20,000 maximum for installing a new PV system. The program will be limited to a targeted annual incentive cap of \$1,000,000 per year.

Commercial Solar Photovoltaic Pilot program encourages customers to install new solar PV systems on their facilities by providing customers with a higher return on their investment. The program is intended to increase renewable energy generation on PEF's system and increase participation in DSM measures by requiring customers to participate in at least one existing commercial energy efficiency measure. Rebates for participating customers who install a new PV system range from \$1.00 to \$2.00 per Watt based upon the PV system's dc power rating. Total incentives per participant will be limited to \$130,000, based on a maximum installation of 100KW. The program will be limited to a targeted annual incentive cap of \$1,000,000 per year.

Photovoltaic for Schools Pilot program allows participating public schools to receive new PV systems at no cost to the school. These systems will be installed, owned, operated and maintained by PEF for a period of 5 years, after which the school assumes ownership and system benefits. The program eliminates the initial investment required to install a renewable solar PV system, increases renewable energy generation on PEF's system, and may also increase participation in existing residential DSM measures through energy education of students. The

program will be limited to an annual target of one system with a rating up to 100 KW installed on a post secondary public school and ten 10 KW systems with battery backup option installed on public schools, preferably serving as emergency shelters. Post secondary school participation will be prioritized based on attendance and consumption associated with their main campus. Public schools will be selected using a competitive process that aligns with Florida's SunSmart E-Shelters Program Application with an emphasis placed on the schools commitment to energy efficiency and renewable energy education. The incentive for this program is the total equipment cost of the solar PV system plus the associated installation, operation and maintenance cost for the first five years. The solar PV system and installation will be considered a rebate that will eliminate the cost to the customer for providing new renewable energy system on their facilities. This program places an emphasis on energy education and promotes environmental stewardship. As such, customers participating in the Winter-Only Energy Management or Year Round Energy Management residential demand response programs can elect to contribute their monthly credit toward a fund design to support and promote energy education. The fund will accumulate associated participant credits for a period of two years, at which time the customer may elect to renew for an additional two years. All proceeds collected from participating customers and their associated monthly credits will be used to promote energy efficiency and renewable energy educational opportunities.

Research & Demonstration The purpose of this program is to research technology and establish R&D initiatives to support the development of renewable energy pilot programs. Demonstration projects will provide real-world field testing to assist in the development of these initiatives. The program will be limited to a targeted annual expenditure cap of 5% of the total Demand-Side Renewable Portfolio annual expenditures. Proposed projects will be designed to support the development of future solar and renewable energy pilot programs. Each proposed R&D project will be investigated, analyzed for costs and benefits, modeled and field tested.