GUNSTER
FLORIDA'S LAW FIRM FOR BUSINESS

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March 8, 2016

E-PORTAL/ELECTRONIC FILING

Ms. Carlotta Stauffer
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 160000- 2015 Annual Conservation Report

Dear Ms. Stauffer:

Attached for electronic filing, please find Florida Public Utilities Company's Annual Conservation Report, submitted in accordance with Rule 25-17.0021(5), Florida Administrative Code.

Thank you for your assistance with this filing. As always, please don't hesitate to let me know if you have any questions whatsoever.

Sincerely,

Beth Keating
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215 South Monroe St., Suite 601
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(850) 521-1706

MEK
cc: Tripp Coston (Economic Supervisor)
Judy Harlow (Chief/Conservation and Forecasting)

2015 ANNUAL CONSERVATION REPORT

PREPARED FOR

Florida Public Utilities Company

8 MARCH 2016

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1 Introduction

This document contains Florida Public Utilities Company's (FPUC) annual report summarizing its demand-side management activities and the total actual achieved results for its approved DSM goals for the 2015 calendar year in accordance with 25-17.0021 (5) FAC. FPUC's 2014 conservation goals were approved in Order No. PSC-14-0696-FOF-EU dated December 29, 2014. In this document, FPUC's conservation plan performance for 2015 is compared to the 2014 goals. FPUC's 2015 Demand-Side Management (DSM) Plan, which was developed to meet the 2014 conservation goals, significantly changed FPUC's conservation programs. These changes were implemented with the approval of the 2015 DSM plan with Consummating Order No. PSC-15-0326-PAA-EG dated August 11, 2015.

Several programs being offered under the 2010 DSM plan were not included in the 2015 DSM plan. Because FPUC offered these programs for the majority of 2015 before they were discontinued, this report includes their savings, costs, and participation figures under Section 3.0. However, these discontinued programs do not contribute towards the 2015 DSM plan goals under Section 2.0. Also, the 2015 DSM plan revised the savings per installation figures for measures continued from the previous plan, and these changes are reflected in all report calculations.

2 Comparison to 2014 Goals

Tables 2-1 through 2-6 present FPUC's 2015 demand and energy conservation program savings compared to the 2014 goals for residential, commercial/industrial, and total both at the generator and meter. Order No. PSC-14-0696-FOF-EU only specifies goals at the generator. For Tables 2-4 through 2-6 at the meter, the goals from PSC-14-0696-FOF-EU are reduced by losses. Detailed performance of the individual programs is shown in Section 3.0. As the first year of comparison to 2014 goals, the 2015 figures reflect all updates to renewed measures and exclude discontinued programs per the 2015 DSM plan. 2011-2014 goals are based on the 2010 DSM Plan, and are presented in Tables 2-1 through 2-6 for purposes of comparison.

Table 2-1 Residential Class Programs (At the Generator)

Year	Winter Peak (MW) Reduction			Summer Peak (MW) Reduction			GWh Energy Reduction		
	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance
2011	0.47	0.13	265.12%	0.77	0.20	285.59%	1.65	0.51	224.22%
2012	0.35	0.13	159.58%	0.54	0.20	167.39%	1.16	0.51	127.48%
2013	0.39	0.13	197.50%	0.63	0.20	212.53%	1.34	0.51	163.45%
2014	0.43	0.13	230.77%	0.68	0.20	240.00%	1.48	0.51	190.20%
2015	0.43	0.12	271.96%	0.76	0.20	272.49%	1.46	0.39	272.29%

Table 2-2 Commercial/Industrial Class Programs (At the Generator)

Year	Winter Peak (MW) Reduction			Summer Peak (MW) Reduction			GWh Energy Reduction		
	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance
2011	0.08	0.06	39.40%	0.12	0.23	-46.67%	0.41	0.78	-47.07%
2012	0.05	0.06	-23.36%	0.07	0.23	-69.44%	0.20	0.78	-74.20%
2013	0.04	0.06	-31.92%	0.06	0.23	-72.60%	0.18	0.78	-77.26%
2014	0.13	0.06	116.67%	0.20	0.23	-13.04%	0.70	0.78	-10.25%
2015	0.00	0.05	-95.26%	0.00	0.07	-94.09%	0.01	0.12	-93.81%

Table 2-3 Total Savings Across All Programs and Classes (At the Generator)

Year	Winter Peak (MW) Reduction			Summer Peak (MW) Reduction			GWh Energy Reduction		
	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance
2011	0.56	0.19	193.84%	0.89	0.43	107.87%	2.07	1.29	60.18%
2012	0.38	0.19	101.65%	0.61	0.43	40.70%	1.36	1.29	5.50%
2013	0.43	0.19	125.06%	0.69	0.43	60.02%	1.52	1.29	17.90%
2014	0.56	0.19	194.74%	0.89	0.43	106.98%	2.18	1.29	68.99%
2015	0.43	0.16	167.04%	0.76	0.27	181.53%	1.47	0.51	185.40%

Table 2-4 Residential Class Programs (At the Meter)

Year	Winter Peak (MW) Reduction			Summer Peak (MW) Reduction			GWh Energy Reduction		
	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance
2011	0.45	0.11	323.30%	0.74	0.20	268.14%	1.58	0.48	227.76%
2012	0.32	0.11	192.90%	0.51	0.20	155.29%	1.11	0.48	130.75%
2013	0.37	0.11	235.68%	0.60	0.20	198.39%	1.28	0.48	167.24%
2014	0.41	0.11	272.73%	0.65	0.20	225.00%	1.42	0.48	195.83%
2015	0.39	0.10	271.87%	0.69	0.18	272.47%	1.42	0.38	272.30%

Table 2-5 Commercial/Industrial Class Programs (At the Meter)

Year	Winter Peak (MW) Reduction			Summer Peak (MW) Reduction			GWh Energy Reduction		
	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance
2011	0.08	0.05	52.10%	0.12	0.20	-41.81%	0.39	0.75	-47.45%
2012	0.04	0.05	-12.20%	0.07	0.20	-65.00%	0.19	0.75	-74.39%
2013	0.04	0.05	-22.00%	0.06	0.20	-71.52%	0.17	0.75	-77.42%
2014	0.12	0.05	140.00%	0.19	0.20	-5.00%	0.67	0.75	-10.67%
2015	0.00	0.04	-95.28%	0.00	0.06	-94.10%	0.01	0.12	-93.81%

Table 2-6 Total Savings Across All Programs and Classes (At the Meter)

Year	Winter Peak (MW) Reduction			Summer Peak (MW) Reduction			GWh Energy Reduction		
	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance
2011	0.53	0.16	237.79%	0.85	0.41	105.81%	1.97	1.23	60.99%
2012	0.37	0.16	128.80%	0.58	0.41	40.91%	1.30	1.23	5.67%
2013	0.41	0.16	155.16%	0.65	0.41	59.45%	1.45	1.23	18.06%
2014	0.54	0.16	237.50%	0.85	0.41	107.32%	2.09	1.23	69.92%
2015	0.39	0.15	166.97%	0.69	0.25	181.50%	1.42	0.50	185.40%

In 2015, FPUC significantly exceeded the residential winter peak, summer peak, and energy reduction goals. The main reason for this level of exceedance is due to higher than projected participation in the Residential Heating and Cooling Upgrade Program. Individual residential program participation is discussed further in Section 3.

In 2015, FPUC missed the commercial/industrial winter peak demand goal, the summer peak demand goal, and energy goals. The goals only reflect those commercial programs included in the 2015 Demand-Side Management Plan. The Commercial Heating and Cooling and Chiller programs both fell short of their participation goals. The Commercial Reflective Roof was a new program in 2015 with no participation goals in the first year. Individual commercial/industrial program participation is discussed further in Section 3.

FPUC discontinued several commercial/industrial programs including Commercial Energy Survey, Indoor Efficient Lighting, and Window Film. Also, the Consummating Order No. PSC-14-0696-FOF-EU required that existing Solar Photovoltaic and Water Heater pilot programs presented in FPUC's 2010 Demand-Side Management Plan continue until December 31, 2015. While several of these programs had some participation in 2015, they are not factored into goals as they were not part of the 2015 Demand-Side Management Plan.

FPUC significantly exceeded all three of its overall goals for 2015. FPUC exceeded the total winter peak demand goal by 167 percent, the total summer peak demand by 181 percent, and energy reduction goal by 185 percent.

3 Existing Programs and 2015 Goals

FPUC's 2015 Demand-Side Management Plan was approved in August 2015. Under this plan, FPUC implemented the following quantifiable programs.

- Residential Energy Survey
- Residential Heating and Cooling Upgrade
- Commercial Heating and Cooling Upgrade
- Commercial Chiller
- Commercial Reflective Roof

The following programs were part of the 2010 DSM Plan and were discontinued in 2015. They are not counted toward 2015 goals, but their savings are quantified in this section.

- Commercial Energy Survey
- Commercial Indoor Efficient Lighting Rebate
- Commercial Window Film

In addition, FPUC provided the following Solar Pilot Programs in 2015. They are not part of the 2015 DSM Plan, but their savings are quantified in this section.

- Solar Photovoltaic
- Solar Hot Water Heaters

Tables 3-1 through 3-10 present the performance for each of the programs.

Table 3-1 Residential Energy Survey Current Participation and Expected Future Savings

Year	Number of Customers	Number of Eligible Customers	Annual Program Participants	Cumulative Program Participants	Total Penetration Level
2015	23,284	23,284	354	354	1.52%
2016	23,335	23,335	100	454	1.95%
2017	23,387	23,387	100	554	2.37%
2018	23,513	23,513	100	654	2.78%
2019	23,639	23,639	100	754	3.19%
2020	23,766	23,766	100	854	3.59%
2021	23,894	23,894	100	954	3.99%
2022	24,022	24,022	100	1054	4.39%
2023	24,151	24,151	100	1154	4.78%
2024	24,281	24,281	100	1254	5.16%

Year	Actual/ Projected Participants	Reduction Per Installation			Total Annual Reduction		
		kWh	Winter kW	Summer kW	kWh	Winter kW	Summer kW
At The Meter							
2015	354	141	0.057	0.049	50,065	20	17
2016	100	141	0.057	0.049	14,143	6	5
2017	100	141	0.057	0.049	14,143	6	5
2018	100	141	0.057	0.049	14,143	6	5
2019	100	141	0.057	0.049	14,143	6	5
2020	100	141	0.057	0.049	14,143	6	5
2021	100	141	0.057	0.049	14,143	6	5
2022	100	141	0.057	0.049	14,143	6	5
2023	100	141	0.057	0.049	14,143	6	5
2024	100	141	0.057	0.049	14,143	6	5
At The Generator							
2015	354	146	0.063	0.054	51,613	22	19
2016	100	146	0.063	0.054	14,580	6	5
2017	100	146	0.063	0.054	14,580	6	5
2018	100	146	0.063	0.054	14,580	6	5
2019	100	146	0.063	0.054	14,580	6	5
2020	100	146	0.063	0.054	14,580	6	5
2021	100	146	0.063	0.054	14,580	6	5
2022	100	146	0.063	0.054	14,580	6	5
2023	100	146	0.063	0.054	14,580	6	5
2024	100	146	0.063	0.054	14,580	6	5

Table 3-2 Residential Heating & Cooling Upgrade Current Participation and Expected Future Savings

Year	Number of Customers	Number of Eligible Customers	Annual Program Participants	Cumulative Program Participants	Total Penetration Level
2015	23,284	23,284	373	373	1.60%
2016	23,335	23,335	100	473	2.03%
2017	23,387	23,387	100	573	2.45%
2018	23,513	23,513	100	673	2.86%
2019	23,639	23,639	100	773	3.27%
2020	23,766	23,766	100	873	3.67%
2021	23,894	23,894	100	973	4.07%
2022	24,022	24,022	100	1073	4.47%
2023	24,151	24,151	100	1173	4.86%
2024	24,281	24,281	100	1273	5.24%

Year	Actual/ Projected Participants	Reduction Per Installation			Total Annual Reduction		
		kWh	Winter kW	Summer kW	kWh	Winter kW	Summer kW
At The Meter							
2015	373	3,661	0.99	1.80	1,365,553	369	671
2016	100	3,661	0.99	1.80	366,100	99	180
2017	100	3,661	0.99	1.80	366,100	99	180
2018	100	3,661	0.99	1.80	366,100	99	180
2019	100	3,661	0.99	1.80	366,100	99	180
2020	100	3,661	0.99	1.80	366,100	99	180
2021	100	3,661	0.99	1.80	366,100	99	180
2022	100	3,661	0.99	1.80	366,100	99	180
2023	100	3,661	0.99	1.80	366,100	99	180
2024	100	3,661	0.99	1.80	366,100	99	180
At The Generator							
2015	373	3,774	1.087	1.976	1,407,777	405	737
2016	100	3,774	1.087	1.976	377,420	109	198
2017	100	3,774	1.087	1.976	377,420	109	198
2018	100	3,774	1.087	1.976	377,420	109	198
2019	100	3,774	1.087	1.976	377,420	109	198
2020	100	3,774	1.087	1.976	377,420	109	198
2021	100	3,774	1.087	1.976	377,420	109	198
2022	100	3,774	1.087	1.976	377,420	109	198
2023	100	3,774	1.087	1.976	377,420	109	198
2024	100	3,774	1.087	1.976	377,420	109	198

Table 3-3 Commercial Heating & Cooling Current Participation and Expected Future Savings

Year	Number of Customers	Number of Eligible Customers	Annual Program Participants	Cumulative Program Participants	Total Penetration Level
2015	4,275	4,275	2	2	0.05%
2016	4,275	4,275	10	12	0.28%
2017	4,275	4,275	10	22	0.51%
2018	4,275	4,275	10	32	0.75%
2019	4,275	4,275	10	42	0.98%
2020	4,275	4,275	10	52	1.22%
2021	4,275	4,275	10	62	1.45%
2022	4,275	4,275	10	72	1.68%
2023	4,275	4,275	10	82	1.92%
2024	4,275	4,275	10	92	2.15%

Year	Actual/ Projected Participants	Reduction Per Installation			Total Annual Reduction		
		kWh	Winter kW	Summer kW	kWh	Winter kW	Summer kW
At The Meter							
2015	2	3,661	0.99	1.80	7,322	2	4
2016	10	3,661	0.99	1.80	36,610	10	18
2017	10	3,661	0.99	1.80	36,610	10	18
2018	10	3,661	0.99	1.80	36,610	10	18
2019	10	3,661	0.99	1.80	36,610	10	18
2020	10	3,661	0.99	1.80	36,610	10	18
2021	10	3,661	0.99	1.80	36,610	10	18
2022	10	3,661	0.99	1.80	36,610	10	18
2023	10	3,661	0.99	1.80	36,610	10	18
2024	10	3,661	0.99	1.80	36,610	10	18
At The Generator							
2015	2	3,774	1.09	1.98	7,548	2	4
2016	10	3,774	1.09	1.98	37,742	11	20
2017	10	3,774	1.09	1.98	37,742	11	20
2018	10	3,774	1.09	1.98	37,742	11	20
2019	10	3,774	1.09	1.98	37,742	11	20
2020	10	3,774	1.09	1.98	37,742	11	20
2021	10	3,774	1.09	1.98	37,742	11	20
2022	10	3,774	1.09	1.98	37,742	11	20
2023	10	3,774	1.09	1.98	37,742	11	20
2024	10	3,774	1.09	1.98	37,742	11	20

Table 3-4 Commercial Chiller Current Participation and Expected Future Savings

Year	Number of Customers	Number of Eligible Customers	Annual Program Participants	Cumulative Program Participants	Total Penetration Level
2015	4,275	4,275	0	0	0.00%
2016	4,275	4,285	1	1	0.02%
2017	4,275	4,294	1	2	0.05%
2018	4,275	4,317	1	3	0.07%
2019	4,275	4,340	1	4	0.09%
2020	4,275	4,364	2	6	0.14%
2021	4,275	4,387	2	8	0.18%
2022	4,275	4,411	2	10	0.23%
2023	4,275	4,435	2	12	0.27%
2024	4,275	4,458	2	14	0.31%

Year	Actual/ Projected Participants	Reduction Per Installation			Total Annual Reduction		
		kWh	Winter kW	Summer kW	kWh	Winter kW	Summer kW
At The Meter							
2015	0	81,943	31.70	42.80	0	0	0
2016	1	81,943	31.70	42.80	81,943	32	43
2017	1	81,943	31.70	42.80	81,943	32	43
2018	1	81,943	31.70	42.80	81,943	32	43
2019	1	81,943	31.70	42.80	81,943	32	43
2020	2	81,943	31.70	42.80	163,886	63	86
2021	2	81,943	31.70	42.80	163,886	63	86
2022	2	81,943	31.70	42.80	163,886	63	86
2023	2	81,943	31.70	42.80	163,886	63	86
2024	2	81,943	31.70	42.80	163,886	63	86
At the Generator							
2015	0	84,477	34.80	47.00	0	0	0
2016	1	84,477	34.80	47.00	84,477	35	47
2017	1	84,477	34.80	47.00	84,477	35	47
2018	1	84,477	34.80	47.00	84,477	35	47
2019	1	84,477	34.80	47.00	84,477	35	47
2020	2	84,477	34.80	47.00	168,954	70	94
2021	2	84,477	34.80	47.00	168,954	70	94
2022	2	84,477	34.80	47.00	168,954	70	94
2023	2	84,477	34.80	47.00	168,954	70	94
2024	2	84,477	34.80	47.00	168,954	70	94

Table 3-5 Commercial Reflective Roof Current Participation and Expected Future Savings

Year	Number of Customers	Number of Eligible Customers	Annual Program Participants	Cumulative Program Participants	Total Penetration Level
2015	13,600	13,600	0	0	0.00%
2016	13,600	13,600	5	5	0.04%
2017	13,600	13,600	10	15	0.11%
2018	13,600	13,600	15	30	0.22%
2019	13,600	13,600	20	50	0.37%
2020	13,600	13,600	25	75	0.55%
2021	13,600	13,600	25	100	0.74%
2022	13,600	13,600	25	125	0.92%
2023	13,600	13,600	25	150	1.10%
2024	13,600	13,600	25	175	1.29%

Year	Actual/ Projected Participants	Reduction Per Installation			Total Annual Reduction		
		kWh	Winter kW	Summer kW	kWh	Winter kW	Summer kW
At The Meter							
2015	0	2,450	0.00	0.91	0	0	0
2016	5	2,450	0.00	0.91	12,250	0	5
2017	10	2,450	0.00	0.91	24,500	0	9
2018	15	2,450	0.00	0.91	36,750	0	14
2019	20	2,450	0.00	0.91	49,000	0	18
2020	25	2,450	0.00	0.91	61,250	0	23
2021	25	2,450	0.00	0.91	61,250	0	23
2022	25	2,450	0.00	0.91	61,250	0	23
2023	25	2,450	0.00	0.91	61,250	0	23
2024	25	2,450	0.00	0.91	61,250	0	23
At the Generator							
2015	0	2,526	0.00	0.99	0	0	0
2016	5	2,526	0.00	0.99	12,629	0	5
2017	10	2,526	0.00	0.99	25,258	0	10
2018	15	2,526	0.00	0.99	37,886	0	15
2019	20	2,526	0.00	0.99	50,515	0	20
2020	25	2,526	0.00	0.99	63,144	0	25
2021	25	2,526	0.00	0.99	63,144	0	25
2022	25	2,526	0.00	0.99	63,144	0	25
2023	25	2,526	0.00	0.99	63,144	0	25
2024	25	2,526	0.00	0.99	63,144	0	25

Table 3-6 Commercial Energy Survey Historical Participation- Discontinued[1]

Year	Number of Customers	Number of Eligible Customers	Annual Program Participants	Cumulative Program Participants	Total Penetration Level
2011	4,407	4,407	65	65	1.47%
2012	4,352	4,352	54	119	2.73%
2013	4,372	4,372	49	168	3.84%
2014	4,412	4,412	41	209	4.74%
2015	4,453	4,453	38	247	5.55%

Year	Actual/ Projected Participants	Reduction Per Installation			Total Annual Reduction		
		kWh	Winter kW	Summer kW	kWh	Winter kW	Summer kW
At The Meter							
2011	65	1,861	0.534	0.534	120,965	35	35
2012	54	1,861	0.534	0.534	100,494	29	29
2013	49	1,861	0.534	0.534	91,189	26	26
2014	41	1,861	0.534	0.534	76,301	22	22
2015	38	1,861	0.534	0.534	70,718	20	20
At The Generator							
2011	65	1,949	0.559	0.559	126,700	36	36
2012	54	1,949	0.559	0.559	105,258	30	30
2013	49	1,949	0.559	0.559	95,512	27	27
2014	41	1,949	0.559	0.559	79,909	23	23
2015	38	1,949	0.559	0.559	74,062	21	21

[1] Total annual reductions not counted towards 2015 Demand-Side Management Goals plan goals.

Table 3-7 Commercial Indoor Efficient Lighting Rebate Historical Participation- Discontinued[2]

Year	Number of Customers	Number of Eligible Customers	Annual Program Participants	Cumulative Program Participants	Total Penetration Level
2011	4,407	4,407	2	2	0.05%
2012	4,352	4,350	1	3	0.07%
2013	4,372	4,369	1	4	0.09%
2014	4,412	4,408	6	10	0.23%
2015	4,453	4,453	10	20	0.45%

Year	Actual/ Projected Participants	Reduction Per Installation			Total Annual Reduction		
		kWh	Winter kW	Summer kW	kWh	Winter kW	Summer kW
At The Meter							
2011	2	16,259	2.08	3.2	32,518	4	6
2012	1	16,259	2.08	3.2	16,259	2	3
2013	1	16,259	2.08	3.2	16,259	2	3
2014	6	16,259	2.08	3.2	97,554	12	19
2015	10	16,259	2.08	3.2	162,590	21	32
At The Generator							
2011	2	17,030	2.179	3.352	34,060	4	7
2012	1	17,030	2.179	3.352	17,030	2	3
2013	1	17,030	2.179	3.352	17,030	2	3
2014	6	17,030	2.179	3.352	102,180	13	20
2015	10	17,030	2.179	3.352	170,300	22	34

[2] Total annual reductions not counted towards 2015 Demand-Side Management Goals plan goals.

Table 3-8 Commercial Window Film Historical Participation- Discontinued[3]

Year	Number of Customers	Number of Eligible Customers	Annual Program Participants	Cumulative Program Participants	Total Penetration Level
2011	4,407	4,407	0	0	0.00%
2012	4,352	4,352	3	3	0.07%
2013	4,372	4,372	1	4	0.09%
2014	4,412	4,412	0	4	0.09%
2015	4,453	4,453	1	5	0.11%

Year	Actual/ Projected Participants	Reduction Per Installation			Total Annual Reduction		
		kWh	Winter kW	Summer kW	kWh	Winter kW	Summer kW
At The Meter							
2011	0	3,670	0	0.84	0	0	0
2012	3	3,670	0	0.84	11,010	0	3
2013	1	3,670	0	0.84	3,670	0	1
2014	0	3,670	0	0.84	0	0	0
2015	1	3,670	0	0.84	3,670	0	1
At The Generator							
2011	0	3,844	0	0.88	0	0	0
2012	3	3,844	0	0.88	11,532	0	3
2013	1	3,844	0	0.88	3,844	0	1
2014	0	3,844	0	0.88	0	0	0
2015	1	3,844	0	0.88	3,844	0	1

[3] Total annual reductions not counted towards 2015 Demand-Side Management Goals plan goals.

Table 3-9 Solar Photovoltaic Historical Participation[4]

Year	Number of Customers	Number of Eligible Customers	Annual Program Participants	Cumulative Program Participants	Total Penetration Level
2011	28,004	28,004	10	10	0.04%
2012	28,022	28,012	8	18	0.06%
2013	28,115	28,097	9	27	0.10%
2014	28,346	28,319	9	36	0.13%
2015	28,578	28,542	8	44	0.15%

Year	Actual/ Projected Participants	Reduction Per Installation			Total Annual Reduction		
		kWh	Winter kW	Summer kW	kWh	Winter kW	Summer kW
At The Meter							
2011	10	4,380	0.07	2.50	43,800	1	25
2012	8	4,380	0.07	2.50	35,040	1	20
2013	9	4,380	0.07	2.50	39,420	1	23
2014	9	4,380	0.07	2.50	39,420	1	23
2015	8	4,380	0.07	2.50	35,040	1	20
At The Generator							
2011	10	4,588	0.08	2.62	45,876	1	26
2012	8	4,588	0.08	2.62	36,701	1	21
2013	9	4,588	0.08	2.62	41,292	1	24
2014	9	4,588	0.08	2.62	41,292	1	24
2015	8	4,588	0.08	2.62	36,704	1	21

[4] Total annual reductions not counted towards 2015 Demand-Side Management Goals plan goals.

Table 3-10 Solar Water Heater Historical Participation[5]

Year	Number of Customers	Number of Eligible Customers	Annual Program Participants	Cumulative Program Participants	Total Penetration Level
2011	28,004	28,004	3	3	0.01%
2012	28,022	28,019	2	5	0.02%
2013	28,115	28,110	1	6	0.02%
2014	28,346	28,340	0	6	0.02%
2015	28,578	28,560	0	6	0.02%

Year	Actual/ Projected Participants	Reduction Per Installation			Total Annual Reduction		
		kWh	Winter kW	Summer kW	kWh	Winter kW	Summer kW
At The Meter							
2011	3	1,482	0.45	0.22	4,446	1	1
2012	2	1,482	0.45	0.22	2,964	1	0
2013	1	1,482	0.45	0.22	1,482	0	0
2014	0	1,482	0.45	0.22	0	0	0
2015	0	1,482	0.45	0.22	0	0	0
At The Generator							
2011	3	1,552	0.47	0.23	4,657	1	1
2012	2	1,552	0.47	0.23	3,105	1	0
2013	1	1,552	0.47	0.23	1,552	0	0
2014	0	1,552	0.47	0.23	0	0	0
2015	0	1,552	0.47	0.23	0	0	0

[5] Total annual reductions not counted towards 2015 Demand-Side Management Goals plan goals.

As shown in Table 3-1 and 3-2 above, the number of Residential Energy Surveys and the number of participants in the Residential Heating and Cooling Upgrade program significantly exceeded projections. Both programs achieved over three times the level of projected participation. The high participation was responsible for significantly exceeding the program goals and residential goals.

As shown in Tables 3-3 through 3-5 above, the commercial/industrial programs included in the 2015 Demand-Side Management Plan fell short of their participation goals. The Commercial Heating & Cooling program achieved 20% of its participation goal, while the Chiller program did not have any participants. The Commercial Reflective Roof was a new program without any expected participation in 2015. Overall the commercial programs failed to meet their winter peak demand, summer peak demand, and energy reduction goals.

Among the commercial/industrial programs being discontinued in 2015, the Commercial Energy Survey and Indoor Efficient Lighting programs achieved over 75 percent of their annual participation goals. The Commercial Window Film program had one participant in 2015. As shown in Tables 3-9 and 3-10, the solar photovoltaic program equaled the goal of 8 participants, while there was no participation in the solar water heater program. The annual savings for discontinued programs are not counted towards the 2015 Demand-Side Management Goals plan goals.

3.1 PROGRAM COSTS

The per installation cost and total program cost for FPUC for each program for 2015 are presented in Table 3-11 for each program. The total program costs are based on the actual 2015 costs and are a function of actual participation and actual administrative and general costs. Common costs, averaging 10%, are allocated to individual programs based on net benefit calculations. The exact date the programs started is August 11, 2015, when the consummating order approving the Demand-Side Management plan was issued.

Most notable, is the reduction in costs of the Residential and Commercial Energy Survey programs. Over the year, FPUC was able to reduce the per installation costs for the Residential and Commercial Energy Survey programs by 32% and 57% respectively.

Table 3-11 Program Costs

Program	2015 Per Installation Cost	2015 Total Program Cost
Residential Energy Survey	$314	$111,245
Residential Heating and Cooling Upgrade	$271	$100,980
Commercial Energy Survey	$549	$20,869
Commercial Indoor Efficient Lighting Rebate	$1,028	$10,280
Commercial Heating and Cooling Upgrade	$477	$955
Commercial Window Film	$203	$203
Commercial Chiller	-	$384

Solar Photovoltaic	$5,002	$40,013
Solar Water Heater	-	-
Commercial Energy Consultation	$116	$1,852
Commercial Reflective Roof	-	$2,030

3.2 NET BENEFITS

The annual net benefits for each program are shown in Table 3-12 based on the 2015 actual program cost versus avoided costs for electricity generation, transmission, and distribution developed for the 2015 Demand-Side Management Plan. Since FPUC purchases all of its power, the avoided generation costs are based on avoiding power purchases from JEA and Gulf. In order to have a single avoided generation cost for evaluating cost effectiveness of the conservation programs, the avoided purchase power costs for JEA and Gulf were weighted averaged using the actual 2015 Net Energy for Load for the Northeast and Northwest Divisions respectively. The avoided transmission & distribution costs are based on FPUC's operation and maintenance costs from 2009-2013, escalated to 2015 dollars.

Table 3-12 Annual Net Benefits

Program	Annual Net Benefits
Residential Energy Survey	($52,521)
Residential Heating and Cooling Upgrade	$1,512,508
Commercial Energy Survey	$47,864
Commercial Indoor Efficient Lighting Rebate	$108,922
Commercial Heating and Cooling Upgrade	$7,710
Commercial Window Film	$2,150
Commercial Chiller	($384)
Solar Photovoltaic	($5,450)
Solar Water Heater	$0
Commercial Energy Consultation	($1,852)
Commercial Reflective Roof	($2,030)

3.3 OTHER CONSERVATION ACTIVITIES

With the implementation of a new 2015 DSM plan, FPU will focus on providing its customers and contractors with information about its new programs in 2016. FPUC will focus on promoting its Commercial/Industrial programs since they have traditional not met participation levels in the past. For the Commercial Heating and Cooling and Commercial Reflective Roof programs, FPUC will

work with industry partners and contractors in its service territories to promote these programs to its customers. For the Commercial Chiller program, FPUC will work closely with its large commercial and industrial customers for whom this program would be beneficial. For all programs, FPUC will continue its participation in education and advertising opportunities that promote each program to its particular target audience.

FPUC continues to emphasize activities where it can reach many of their customers at one time with its conservation message. FPUC's small size and proportionate resources necessitate this approach to obtain cost effective conservation in its service area. FPUC was very effective with this approach in 2015. FPUC held or attended 12 energy conservation related events with an estimated total attendance of 8,045. These events are generally at the community level. The purpose of participating in these events is to educate FPUC's customers about energy efficiency and to offer energy conservation surveys and measures as a way to combat high electrical usage and the rising costs of energy. Conservation kits (containing two LED lightbulbs, weather stripping, etc.), energy saving tips, and conservation brochures are distributed to FPUC's customers during these events and contribute to conservation by stressing the importance of using energy efficiency as a means to reduce high energy bills. Events provide FPUC a great opportunity to interact one-on-one with consumers and to efficiently distribute FPUC's conservation kits which have a direct impact on energy consumption.

In 2014, FPUC introduced its Energy Conservation School program aimed at educating students about the basics of energy efficiency and how they could help to conserve energy in their homes. During 2015, FPUC made several presentations to schools within its territory and continues to promote this program to school boards in the area. The goal is not only to educate students who will be future consumers of energy but for them to relay the message to their parents and get educational materials into more households.

FPUC has also continued to serve its customers through its Energy Expert program which provides resources like energy-related tips and advice, articles, videos, blog content and other downloadable materials. One of the more popular features of this program is the "Ask the Energy Expert" tool which allows customers to submit energy-related questions and receive a response from FPUC personnel. These questions and answers are also made available on the FPUC website so that other customers may benefit from the information. As part of the Energy Expert program, FPUC energy conservation employees continually work with employees from other departments to provide basic energy efficiency and conservation training. This training gives Customer Service, Sales and other customer-facing employees the training they need to address high-bill complaints and confidently speak to customers about their energy usage, energy conservation measures and the programs that are offered by FPUC. All of these customer touch points are used to promote FPUs energy conservation programs and help achieve program goals.