

Writer's Direct Dial Number: (850) 521-1706 Writer's E-Mail Address: bkeating@gunster.com

February 28, 2019

E-PORTAL FILING

Mr. Adam Teitzman, Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Re: 20190000-OT – Undocketed Filings for 2019.

Dear Mr. Teitzman;

Attached for filing on behalf of Florida Public Utilities Company, please find the Company's Annual Conservation Report, filed in accordance with Rule 25-17.0021(5), F.A.C..

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

Kind regards,

Beth Keating

Gunster, Yoakley & Stewart, P.A. 215 South Monroe St., Suite 601

Tallahassee, FL 32301

(850) 521-1706

cc:/ Judy Harlow Tripp Coston

2018 ANNUAL CONSERVATION REPORT

PREPARED FOR

Florida Public Utilities Company

26 FEBRUARY 2019

Table of Contents

1	Introduction
2	Comparison to 2014 Goals
3	Existing Programs and 2014 Goals
	3.1 Program Costs1
	3.2 Net Benefits1
	3.3 Other Conservation Activities
Li	ist of Tables
1	Introduction
2	Comparison to 2014 Goals
	Table 2-1 Residential Class Programs (At the Generator)
	Table 2-2 Commercial/Industrial Class Programs (At the Generator)
	Table 2-3 Total Savings Across All Programs and Classes (At the Generator)
	Table 2-4 Residential Class Programs (At the Meter)
	Table 2-5 Commercial/Industrial Class Programs (At the Meter)
	Table 2-6 Total Savings Across All Programs and Classes (At the Meter)
3	Existing Programs and 2014 Goals
	Table 3-1 Residential Energy Survey Current Participation and Expected Future Savings
	Table 3-2 Residential Heating & Cooling Upgrade Current Participation and Expected Future Savings7
	Table 3-3 Commercial Heating & Cooling Current Participation and Expected Future Savings
	Table 3-4 Commercial Chiller Current Participation and Expected Future Savings
	Table 3-5 Commercial Reflective Roof Current Participation and Expected Future Savings10
	Table 3-6 Program Costs
	Table 3-7 Annual Net Benefits

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 2018 calendar year in accordance with 25-17.0021 (5) FAC. Herein, FPUC's conservation plan performance for 2018 is compared to the 2014 goals.

FPUC's 2014 conservation goals were approved in Order No. PSC-2014-0696-FOF-EU, issued December 16, 2014. 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 Order No. PSC-2015-0326-PAA-EG, issued August 11, 2015.

2 Comparison to 2014 Goals

Tables 2-1 through 2-6 present FPUC's 2018 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-2014-0696-FOF-EU only specifies goals at the generator. For Tables 2-4 through 2-6 at the meter, the goals from PSC-2014-0696-FOF-EU are reduced by losses. Detailed performance of the individual programs is shown in Section 3.0.

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

	Winter Pea	ak (MW)		Summer Pe	Summer Peak (MW)			GWh Energy			
	Reduction			Reduction			Reduction				
Year	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance		
2011	0.470	0.130	265.12%	0.770	0.200	285.59%	1.650	0.510	224.22%		
2012	0.350	0.130	159,58%	0.540	0.200	167.39%	1.160	0.510	127.48%		
2013	0.390	0,130	197.50%	0.630	0,200	212.53%	1,340	0.510	163.45%		
2014	0.430	0.130	230.77%	0.680	0.200	240.00%	1.480	0.510	190.20%		
2015	0.428	0,012	3464.61%	0.756	0.036	2000,46%	1,459	-0.023	6245,17%		
2016	0.263	0.015	1655.35%	0.462	0.046	903.69%	0.894	0.030	2879.31%		
2017	0.248	0.018	1279,48%	0.440	0.056	686.59%	0.849	0.038	2134,26%		
2018	0.225	0.022	920.68%	0.399	0.067	495.88%	0.769	0.045	1608.60%		

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

	Winter Pea	ak (MW)		Summer P	eak (MW)		GWh Energy		
	Reduction			Reduction			Reduction		
Year	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance
2011	0.080	0.060	39.40%	0.120	-0.230	-46.67%	0,410	0.780	-47.07%
2012	0.050	0.060	-23.36%	0.070	0.230	-69.44%	0.200	0.780	-74.20%
2013	0.040	0.060	-31.92%	0.060	- 0.230	-72.60%	0.180	0.780	-77.26%
2014	0.130	0.060	116.67%	0.200	0.230	-13.04%	0.700	0.780	-10.25%
2015	0.002	0.010	-78.20%	0.004	- 0.012	-67.00%	0,008	0.055	-86.28%
2016	0.039	0.008	389.50%	0.072	0.027	165.74%	0.143	0.078	82.71%
2017	0.000	0.009	-100.00%	0.000	0.031	-100.00%	0.000	0.094	-100.00%
2018	0.000	0.018	-100.00%	0.043	0.039	9.15%	0.109	0.115	-5.56%

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

	Winter Pea	ak (MW)		Summer Po	eak (MW)		GWh Energ	y	
	Reduction			Reduction			Reduction		
Year	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance
2011	0.560	0.190	193.84%	0.890	0,430	107.87%	2.070	1,290	60.18%
2012	0.380	0.190	101.65%	0.610	0.430	40.70%	1.360	1,290	5.50%
2013	0,430	0.190	125.06%	0.690	0,430	60.02%	1.520_	1.290	17.90%
2014	0.560	0.190	194.74%	0.890	0.430	106.98%	2.180	1.290	68.99%
2015	.0.430	0.022	1854.24%	0.760	0.057	1233.55%	1,467	0.078	1780.69%
2016	0.302	0.023	1215.05%	0.533	0.073	630.75%	1.036	0.108	859.54%
20 <u>1</u> 7.	0.248	0.027	819,65%	0.440	0.087	406.31%	0.849	0.132	543.20%
2018	0.225	0.040	461.38%	0.442	0.106	316.80%	0.877	0.160	448.42%

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

	Winter Pea	ak (MW)	-	Summer Po	eak (MW)		GWh Energy	V .	
	Reduction			Reduction			Reduction		
Year	Total Achieved Commission Approved Goal % Variance			Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance
2011	0.450	0.110	323,30%	0.740	0.200	268.14%	1.580	0,480	227.76%
2012	0.320	0.110	192.90%	0.510	0.200	155.29%	1.110	0.480	130.75%
2013	0.370	0.110	235.68%	0.600	0,200	198.39%	1,280	0.480	167.24%
2014	0.410	0.110	272.73%	0.650	0.200	225.00%	1.420	0.480	195.83%
2015	0.390	0.011	3463.73%	0,689	0.033	2000.30%	1.416	0.022	6245,22%
2016	0.240	0.014	1654.92%	0.421	0.042	903.61%	0.867	0.029	2879.33%
2017	0.226	0.016	1279,14%	0.401	0.051	686.53%	0.824	0.037	2134.28%
2018	0.205	0.020	920.43%	0.364	0.061	495.84%	0.746	0.044	1608.61%

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

	Winter Pea	ak (MW)		Summer Po	eak (MW)		GWh Energy	GWh Energy			
Vaan	Reduction			Reduction	Reduction			Reduction			
Year	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance		
2011	0.080	0.050	52.10%	0.120	0.200	-41.81%	0.390	0,750	-47.45%		
2012	0.040	0.050	-12.20%	0.070	0.200	-65.00%	0.190	0.750	-74.39%		
2013	0.040	==0.050	-22.00%	0.060	0,200	-71,52%	-0,170	0.750	-77.42%		
2014	0.120	0.050	140.00%	0.190	0.200	-5.00%	0.670	0.750	-10.67%		
2015	0.002	0.009	-78.27%	0.004	0.011	-67.07%	0.007	0.053	-86.28%		
2016	0.036	0.007	389.30%	0.065	0.025	166.17%	0.138	0.076	82.71%		
2017	0.000	0.008	-100.00%	0.000	0.028	-100.00%	0.000	0.091	_= =100.00%		
2018	0.000	0.016	-100.00%	0.039	0.036	10.14%	0.105	0.112	-5.56%		

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

	Winter Pea	ak (MW)	· <u>-</u>	Summer Po	eak (MW)		GWh Energ	GWh Energy			
	Reduction			Reduction	uction			Reduction			
Year	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance		
2011	0.530	0,160	237.79%	0.850	0.410	105.81%	1.970	1.230	60.99%		
2012	0.370	0.160	128.80%	0.580	0.410	40.91%	1.300	1.230	5.67%		
2013	0.410	0,160	155.16%	0.650	0.410	-59.45%	1,450	1.230	18.06%		
2014	0.540	0.160	237.50%	0.850	0.410	107.32%	2.090	1.230	69.92%		
2015	0,392	0,020	1853.73%	0.692	- 0.052	1233,44%	1.423	0.076	1780.70%		
2016	0.275	0.021	1214.70%	0.486	0.067	630.86%	1.005	0.105	859.55%		
2017	0.226	0.025	819.42%	0.401	0.079	406.27%	0.824	== 0.128	543.20%		
2018	0.205	0.036	461.24%	0.403	0.097	317.14%	0.851	0.155	448.43%		

In 2018, FPUC significantly exceeded the residential winter peak demand goal, the summer peak demand goal, and energy reduction goals. The main reason for this level of exceedance is due to the high participation rate in the Residential Heating and Cooling Upgrade Program. While FPUC fell short of the commercial/industrial winter peak and energy reduction goals, FPUC exceeded the total winter peak demand goal by 461 percent, the total summer peak demand goal by 317 percent, and the total energy reduction goal by 448 percent. Thus, the Company significantly exceeded its overall goals for 2018. Individual program participation is discussed further in Section 3.

3 Existing Programs and 2014 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

Tables 3-1 through 3-7 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 Partcipants		enetration .evel
2015	23,284	23,284	354	3	54	1	.52%
2016	23,335	23,335	280	6	34	2	.72%
2017	23,387	23,387	180	8	14	- 3	.48%
2018	23,513	23,513	148	9	62	, . [.] 4	.09%
2019	23,639	23,639	_ 100-	10)62	<i>-</i> 4	.49%
2020	23,766	23,766	100	11	L62	4	.89%
2021	23,894	23,894	100	12	262	5	28%
2022	24,022	24,022	100	13	362	5.	67%
2023	24,151	24,151	100	14	62	6	05%
2024	24,281	24,281	100	15	62	6	43%
Voor	Actual/	Reduc	tion Per Install	ation	То	tal Annual Rec	luction
Year	Projected Participants	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	280	141	0.057	0.049	39,599	16	14
2017	180	= 141	-0.057	0.049	25,457	10	9
2018	148	141	0.057	0.049	20,931	8	7
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 G	enerator			
2015	354	146	0.063	0.054	51,613	22	19
2016	280	146	0.063	0.054	40,824	18	15
2017	180	146	0.063	0.054	26,244	11	10
2018	148	146	0.063	0.054	21,578	9	8
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 Partcipants		enetration
2015	23,284	23,284	373		272		evel
2016	23,335	23,335	226		373 599	1.2000 000 - Jan 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	60%
2017	23,387	23,387	218	aller order	817	. Denebara et elem	57% 49%
2018	23,513	23,513	198	1.25	.015	Make the first states	49% 32%
2019	23,639	23,639	100	1	115	etherite cari	32% 72%
2020	23,766	23,766	100	1000 Contraction	.115	r comprehension	72% 11%
2021	23,894	23,894	100	#25070 - 0.785465	315		11% 50%
2022	24,022	24,022	100		415		89%
2023	24,151	24,151	100	Prof. Sewanian co	515	. // *515-5 .700	27%
2024	24,281	24,281	100	<u> </u>	615		65%
2021		_	ion Per Installa	_ : -:::		Annual Redu	- N. N
Year	Actual/ Projected		Winter		. 0.0	Winter	
	Participants	kWh	kW	Summer kW	kWh	kW	Summer kW
			At The IV	leter			
2015	373	3,661	0.99	1.80	1,365,553	369 =	671
2016	226	3,661	0.99	1.80	827,386	224	407
2017	218	3,661	0.99	1.80	798,098	216	392
2018	198	3,661	0.99	1.80	724,878	196	356
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 Gen	erator			4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
-2015	373	3,774	1.087	1,976	1,407,777	405	737
2016	226	3,774	1.087	1.976	852,969	246	447
2017	218	3,774	1.087	1.976	822,776	237 🚁	431
2018	198	3,774	1.087	1.976	747,292	215	391
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

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

Year	Number of Customers	Number of Eligible Customers	Annual Program Participants		ve Program cipants		netration vel
2015	4,275	4,275	2		2)5%
2016	4,275	4,275	4		6		.4%
2017	4,275	4,275	0		6	0.1	4%
2018	4,275	4,275	0		6	80 Y 1,440/40 Y 1,500	4%
2019	4,275	4,275	.10		16	0,3	7%
2020	4,275	4,275	10	*	26	0.6	1%
2021	4,275	4,275	10		36	0.8	4%
2022	4,275	4,275	10		46	1.0	8%
2023	4,275	4,275	10		56	1.3	1%
2024	4,275	4,275	10	(56	1.5	4%
	Actual/	Reduc	tion Per Installa	tion	Tota	l Annual Redu	ction
Year	Projected	kWh	Winter	Summer	kWh	Winter	Cummon letter
	Participants	1. 0011	kW	kW	KVVII	kW	Summer kW
			At The M	eter			
2015	2	3,661	0.99	1.80	7,322	2	4
2016	4	3,661	0.99	1.80	14,644	4	7
2017	0	3,661	0.99	1.80	0	0	0
2018	0	3,661	0.99	1.80	0	0	0
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 Gen				
2015	2	3,774	1,09	1.98	7,548	2	4
2016	4	3,774	1.09	1.98	15,097	4	8
2017	0	3,774	1.09	1.98	-0	0 =-==	0
_ 2018	0	3,774	1.09	1.98	0	0	0
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 2024	10 10	3,774 == 8 3,774	1.09 1.09	1.98 1.98	37,742 37,742	11	20
2024	10	3,774	1,05	1.70	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		e Program ipants	Total	Penetration Level
2015	4,275	4,275	0		0		0.00%
2016	4,275	4,285	1		1		0.02%
<u> </u>	4,275	4,294	0		1		0.02%
2018	4,275	4,317	0	-	1	1949	0.02%
2019	4,275	4,340	1		2		0.05%
2020	4,275	4,364	. 2		4		0.09%
2021	4,275	4,387	2		6		0.14%
2022	4,275	4,411	2		8	45 S.	0.18%
2023	4,275	4,435	2	1	0		0.23%
2024	4,275	4,458	2	1	2		0.27%
	Actual/	Reduc	tion Per Installa	ition	Tota	al Annual Re	duction
Year	Projected	kWh	Winter	Summer	kWh	Winter	Summer kW
AN INDEX	Participants		kW	kW		kW	Sulliller KVV
			At The M	eter			
2015	_ 0	81,943	31.70	42.80	0 -	- 0	0
2016	1	81,943	31.70	42.80	81,943	32	43
2017	0	81,943	31.70	42.80	0	0	0
2018	0	81,943	31.70	42.80	0	0	0
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 Gen	erator			
2015	0	84,477	34.80	47.00	-0	0	0
2016	1	84,477	34.80	47.00	84,477	35	47
2017	0	84,477	34.80	47.00	0	0	0
2018	0 m	84,477	34.80	47.00	0	0	0
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		re Program ipants		netration
2015	13,600	13,600	Ō	0		0.0	00%
2016	13,600	13,600	17	17		0.1	13%
2017	13,600	13,600 🚅	0 = -	17.		0.1	L3%====
2018	13,600	13,600	43	60		0.4	14%
2019	13,600	13,600	_20	60 80		0،5	59% =
2020	13,600	13,600	25	10	05	0.7	77%
2021	13,600	13,600	25	13	30	0.9)6%
2022	13,600	13,600	25	1!	55	1.1	.4%
2023	13,600	13,600	25	18	30	1,3	32%
2024	13,600	13,600	25	20	05 -	1.5	1%
	Actual/	Reduc	tion Per Install	ation	Tota	l Annual Redu	ıction
Year	Projected Participants	kWh	Winter kW	Summer kW	kWh	Winter kW	Summer kW
			At The N	leter			
2015	0	2,450	0,00	0.91	0	0	0
2016	17	2,450	0.00	0.91	41,650	0	15
2017	0 ,	2,450	0.00	0.91	0 -	<u>-</u> = 0	0
2018	43	2,450	0.00	0.91	105,350	0	39
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 Gen	ierator			
2015	0	2,526	0,00	0.99	0.	- 0	0
2016	17	2,526	0.00	0.99	42,938	0	17
2017	0	2,526	2 0.00	0.99	0,	· • • 0	0
2018	43	2,526	0.00	0.99	108,607	0	43
2019	20	-2,526	0.00	0.99	50,515	0	20
2020	25	2,526	0.00	0.99	63,144	ο `	25
2021	25	2,526	0.00	0.99	63,144	0.5	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

As shown in Table 3-1 and 3-2 above, the number of residential energy surveys and the number of participants in the heating and cooling upgrade program significantly exceeded projections. Taken together, the programs achieved close to twice the level of projected participation. The high participation rate was responsible for significantly exceeding the program goals and residential goals. As shown in Tables 3-3 and 3-4, the commercial heating & cooling upgrade and chiller programs did not have any participants. As shown in Table 3-5, the commercial reflective roof program attracted strong participation and exceeded its goals. Overall, FPUC achieved its winter peak demand, summer peak demand, and energy reduction goals across all programs and classes.

3.1 PROGRAM COSTS

The per installation cost and total program cost for FPUC for each program for 2018 are presented in Table 3-6 for each program. The total program costs are based on the actual 2018 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.

Table 3-6 Program Costs

Program	2018 Per Installation Cost	2018 Total Program Cost
Commercial Chiller		\$3,993
Commercial Demonstration and Development	-	\$34,782
Commercial Energy Consultation	\$226	\$7,452
Commercial Heating & Cooling	-	\$8,597
Commercial Reflective Roofing	\$557	\$23,947
Low Income	<u>.</u> .	\$4,200
Residential Energy Survey	\$478	\$70,799
Residential Heating & Cooling	\$409	\$81,077

3.2 NET BENEFITS

The annual net benefits for each program are shown in Table 3-7 based on the 2018 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 FPL 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 FPL and Gulf were weighted averaged using the actual 2018 Net Energy for Load for the Northeast and Northwest Divisions respectively. The avoided transmission and distribution costs are based on FPUC's operation and maintenance costs from 2009-2013, escalated to 2018 dollars.

2/22/19 11

Table 3-7 Annual Net Benefits

Program	Annual Net Benefits
Commercial Chiller	(\$3,993)
Commercial Demonstration and Development	(\$34,782)
Commercial Energy Consultation	(\$7,452)
Commercial Heating & Cooling	(\$8,597)
Commercial Reflective Roofing	\$65,408
Low Income	(\$4,200)
Residential Energy Survey	(\$43,676)
Residential Heating & Cooling	\$865,394

3.3 OTHER CONSERVATION ACTIVITIES

Since the implementation of a new 2015 DSM plan, FPU has focused on providing its customers and contractors with information about its new programs. Given the small size of FPU's Commercial/Industrial customer base, program goals have been historically difficult to meet. FPU seeks to replicate the successes of 2016 when the Company significantly exceeded goals due to one commercial/industrial participant who qualified for several rebates as allowed in FPU's DSM program. For the Commercial Heating and Cooling and Commercial Reflective Roof programs, FPU will continue to work with industry partners and contractors in its service territories to promote these programs to its customers. For the Commercial Chiller program, FPU will work closely with its large commercial and industrial customers for whom this program would be beneficial. For all programs, FPU will continue its participation in education and advertising opportunities that promote each program to its target audience.

FPU continues to emphasize activities where it can reach many of its customers at one time with its energy conservation message. Proportionate resources to its small customer base necessitate this approach to obtain cost-effective coverage in its service area. FPU was effective with this approach and held or attended 36 energy conservation-related events (ranging in size) focused on connecting with customers at the community level. The purpose of participating in these events is to educate FPU's customers about energy efficiency and to offer energy conservation surveys and measures to combat high electrical usage and the rising costs of energy. Conservation kits have been replaced with energy savings tips and LED lightbulbs which are received by customers during energy audits. Energy conservation brochures are distributed during events that stress the importance of using energy efficiency to reduce high energy bills and energy consumption.

FPU has also continued to serve its customers through its Energy Expert program which provides resources such as energy-related tips and advice, articles, videos, blog content and other downloadable materials. This energy conservation resource features an "Ask the Energy Expert" tool which allows customers to submit energy-related questions and receive a response from FPU

2/22/19 12

personnel. These questions and answers are also made available on the FPUC website so that other customers may benefit from the information. We are actively working to promote this useful tool to give customers a chance to interact with FPU's highly trained conservation professionals. As part of the Energy Expert program, FPU 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 tools 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 FPU. All of these customer touch points are used to promote FPU's energy conservation programs and help achieve program goals. In 2018, FPU developed an outreach campaign (customer bill insert, eblast and landing page) to educate customers on the importance of understanding how their energy costs are impacted by colder weather and provided energy-saving tips to help reduce winter energy costs.

Grassroots events remain the primary vehicle for reaching low-income customers and for promoting energy conservation awareness and programs. In 2018, FPU hosted a luncheon at the Senior Citizen Center in Northwest Florida, with over 50 in attendance who reside in low-income housing. Conservation representatives provided cold weather energy-saving tips, energy conservation marketing collateral, lunch and a blanket to each participant. FPU is actively looking to grow the low-income program by searching for opportunities to reach low-income housing residents.

Hurricane Michael severely impacted FPUC's Northwest Territory in October of 2018 and thus, impacted overall participation levels for the remainder of the year. All of FPU's customers within the Northwest Florida territory were affected by the storm with many of them experiencing devastating losses. Consequently, FPU's conservation efforts were impacted for late 2018, and will likely be impacted significantly in 2019, although in what way and to what degree remains to be seen.

2/22/19 13