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May 10, 2017

E-PORTAL FILING

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

Re: 170000-OT – Undocketed - Staff's First Data Request on Florida Public Utilities Company's 2016 Demand-Side Management Annual Report.

Dear Ms. Stauffer:

Attached for filing on behalf of the Florida Public Utilities Company, please find the Company's responses to Commission Staff's First Data Requests regarding the Company's 2016 Annual Report.

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,



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Cc: (Whitchurch, Coston)

FPUC Response to Staff's First Data Request – 2016 FEECA Report Data Collection

1. For the following program, please describe the company's assessment on why it did not achieve the projected participation levels for 2016. Also please describe any efforts the company is implementing to increase future participation levels.
 - a. Commercial Heating and Cooling Program, page 7 of the 3/6/2017 DSM filing.

Company Response: The Company did not achieve the projected participation level for its Commercial Heating and Cooling Program, in 2016, due to a lack of participation. The Company's Residential Heating and Cooling Program continues to meet its projected participation levels every year, however for commercial customers, the incentives offered may not be sufficient enough to impact customer behavior.

In order to increase future participation levels, the Company will continue to promote this program to its customers and continue to educate area contractors and service providers about the program and its benefits. The Company has also placed a greater marketing emphasis on its Commercial Heating and Cooling Program and had increased efforts to work with Energy Services Companies to provide performance contracts, which can take advantage of this and other available commercial rebates.

2. Please provide a detailed description of the company's research and development programs related to emergent DSM technologies and how these efforts may impact the company's conservation program.

Company Response: The Company currently has an approved Conservation, Demonstration and Development program whose primary purpose is to pursue research, development and demonstration projects that are designed to promote energy efficiency and conservation. These efforts impact the Company's conservation efforts by allowing the Company to explore and research new end use technologies, demonstrate their effectiveness for energy efficiency and conservation and potentially create programs for customers to assist with their energy efficiency and conservation needs.

3. Please describe the process for ensuring low-income customers are aware of, and have access to, conservation programs offered by the company.

Company Response: The Company ensures that low-income customers are aware of and have access to its conservation programs by partnering with Department of Economic Opportunity approved Low Income Weatherization Program operators within its service territory and offering energy surveys, contractor training, energy efficiency literature and hosting events specifically geared towards low income households. The Company also promotes its energy conservation programs in low-income areas of its service territory by using more traditional advertising mediums (like newspaper, television and radio advertising).

4. Please describe the company's process for monitoring any new federal energy efficiency standards and Florida Building Code requirements, including how the company modifies existing programs to reflect these changes if necessary. (6th version of FLBC to be released June 2017, effective 12/31/2017)

Company Response: The Company continually strives to remain up-to-date and informed of all changes to the Energy industry including any new federal energy efficiency standards or Florida Building Code requirements. The Company's Energy Conservation employees responsible for updating and implementing the Company's Demand Side Management (DSM) programs keep abreast of any changes to efficiency standards and code requirements each year by participating in several energy related organizations and continuing education opportunities. The Company's Senior Energy Conservation Representative is also a member of the Florida Building Commission's Energy Technical Advisory Committee and is well versed in the current Florida Building Code requirements and the updated version to be released in June.

The Company also engages external consultants with regards to new federal energy efficiency standards and Florida Building code requirements when making any revisions to its DSM plan and programs.

5. Please confirm the Total Annual Reduction of kWh for the year 2016 for Tables 3.1 – 3.5, found on pages 5-9 of the 3/6/2017 DSM filing. Actual recorded kWh reductions match projected kWh reductions.

Company Response: The Company has updated the Total Annual Reduction of kWh for 2016 for Tables 3.1 – 3.5 and has provided a revised copy of its 2016 Annual Conservation Report with this response.

6. How does the company develop DSM program participation estimates?

Company Response: The Company's Demand Side Management (DSM) program participation estimates are developed to meet the annual DSM program goals established by the Florida Public Service Commission (FPSC). FPUC's residential and commercial/industrial numeric conservation goals for the 2015 through 2024 period were established by the proxy method approved in Order No. PSC-13-0645-PAA-EU and through PSC staff administrative approval on December 29, 2014.

7. Does the company annually adjust program projection estimates to account for each program's recent performance? If not, please explain the company's rationale for not doing this.

Company Response: No, the Company has not historically, and does not currently, adjust program projections estimates annually to account for each program's recent performance. The program participation estimates are based on the Company's annual DSM program goals established by the Florida Public Service Commission (FPSC) and as such, the Company does not adjust them annually.

2016 ANNUAL CONSERVATION REPORT

PREPARED FOR

Florida Public Utilities Company

REVISED May 5th, 2017

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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 2016 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.

2 Comparison to 2014 Goals

Tables 2-1 through 2-6 present FPUC's 2016 demand and energy conservation program savings compared to the 2015 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.

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

Year	Winter Peak (MW)			Summer Peak (MW)			GWh Energy		
	Reduction			Reduction			Reduction		
	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%

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

Year	Winter Peak (MW)			Summer Peak (MW)			GWh Energy		
	Reduction			Reduction			Reduction		
	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	0.021	-81.14%	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%

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

Year	Winter Peak (MW) Reduction			Winter 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	0.560	0.190	193.84%	0.890	0.430	107.87%	2.070	1.290
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%

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

Year	Winter Peak (MW) Reduction			Winter 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	0.450	0.110	323.30%	0.740	0.200	268.14%	1.580	0.480
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%

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

Year	Winter Peak (MW) Reduction			Winter 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	0.080	0.050	52.10%	0.120	0.200	-41.81%	0.390	0.750
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	0.019	-81.18%	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%

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

Year	Summer Peak (MW)			Summer Peak (MW)			GWh Energy		
	Reduction			Reduction			Reduction		
	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%

In 2016, 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 2016, FPUC also significantly exceeded the commercial/industrial winter peak demand goal, the summer peak demand goal, and energy goals. Individual commercial/industrial program participation is discussed further in Section 3.

FPUC significantly exceeded all three of its overall goals for 2016. FPUC exceeded the total winter peak demand goal by 1215 percent, the total summer peak demand by 631 percent, and energy reduction goal by 860 percent.

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 Participants	Total Penetration Level		
2015	23,284	23,284	354	354	1.52%		
2016	23,335	23,335	280	634	2.72%		
2017	23,387	23,387	100	734	3.14%		
2018	23,513	23,513	100	834	3.55%		
2019	23,639	23,639	100	934	3.95%		
2020	23,766	23,766	100	1034	4.35%		
2021	23,894	23,894	100	1134	4.75%		
2022	24,022	24,022	100	1234	5.14%		
2023	24,151	24,151	100	1334	5.52%		
2024	24,281	24,281	100	1434	5.91%		

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	280	141	0.057	0.049	39,599	16	14
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	280	146	0.063	0.054	40,824	18	15
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	226	599	2.57%
2017	23,387	23,387	100	699	2.99%
2018	23,513	23,513	100	799	3.40%
2019	23,639	23,639	100	899	3.80%
2020	23,766	23,766	100	999	4.20%
2021	23,894	23,894	100	1099	4.60%
2022	24,022	24,022	100	1199	4.99%
2023	24,151	24,151	100	1299	5.38%
2024	24,281	24,281	100	1399	5.76%

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	226	3,661	0.99	1.80	827,386	224	407
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	226	3,774	1.087	1.976	852,969	246	447
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	4	6	0.14%
2017	4,275	4,275	10	16	0.37%
2018	4,275	4,275	10	26	0.61%
2019	4,275	4,275	10	36	0.84%
2020	4,275	4,275	10	46	1.08%
2021	4,275	4,275	10	56	1.31%
2022	4,275	4,275	10	66	1.54%
2023	4,275	4,275	10	76	1.78%
2024	4,275	4,275	10	86	2.01%

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	4	3,661	0.99	1.80	14,644	4	7
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	4	3,774	1.09	1.98	15,097	4	8
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	17	17	0.13%
2017	13,600	13,600	10	27	0.20%
2018	13,600	13,600	15	42	0.31%
2019	13,600	13,600	20	62	0.46%
2020	13,600	13,600	25	87	0.64%
2021	13,600	13,600	25	112	0.82%
2022	13,600	13,600	25	137	1.01%
2023	13,600	13,600	25	162	1.19%
2024	13,600	13,600	25	187	1.38%

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	17	2,450	0.00	0.91	41,650	0	15
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	17	2,526	0.00	0.99	42,938	0	17
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

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. 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.

3.1 PROGRAM COSTS

The per installation cost and total program cost for FPUC for each program for 2016 are presented in Table 3-6 for each program. The total program costs are based on the actual 2016 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	2016 Per Installation Cost	2016 Total Program Cost
Commercial Chiller	\$26,037	\$26,037
Commercial Heating & Cooling	\$3,513	\$14,050
Commercial Reflective Roof	\$1,200	\$20,404
Residential Energy Survey	\$420	\$117,632
Residential Heating & Cooling	\$331	\$74,783
Commercial Energy Consultation	\$510	\$34,166

3.2 NET BENEFITS

The annual net benefits for each program are shown in Table 3-7 based on the 2016 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 2016 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 3-7 Annual Net Benefits

Program	Annual Net Benefits
Commercial Chiller	\$86,510
Commercial Heating & Cooling	\$3,674
Commercial Reflective Roof	\$13,043
Residential Energy Survey	(\$69,746)
Residential Heating & Cooling	\$933,321
Commercial Energy Consultation	(\$34,166)

3.3 OTHER CONSERVATION ACTIVITIES

With the implementation of a new 2015 DSM plan, FPU has focused on providing its customers and contractors with information about its new programs in 2016. FPUC focused and will continue to 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 continue to 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 2016. FPUC held or attended 11 energy conservation related events with an estimated total attendance of 10,850. 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 2016, 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 FPU’s energy conservation programs and help achieve program goals.