



GUNSTER
FLORIDA'S LAW FIRM FOR BUSINESS

DOCKET NO. 20240170-EG

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FPSC - COMMISSION CLERK

December 19, 2024

Writer's E-Mail Address: bkeating@gunster.com

VIA E-PORTAL

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

**Re: [New Filing] – Petition for Approval of Demand-Side Management Plan of Florida
Public Utilities Company**

Dear Mr. Teitzman:

Attached for electronic filing on behalf of Florida Public Utilities Company, please find the Company's Petition for Approval of Demand-Side Management Plan, along with its 2025 DSM Plan, which is Attachment A to the Petition. Note that Appendix B to the Plan (Attachment A) is being provided electronically and is not attached.

Should you have any questions whatsoever, please do not hesitate to contact me. Thank you for your assistance in this matter.

Sincerely,

Beth Keating
Gunster, Yoakley & Stewart, P.A.
215 South Monroe St., Suite 601
Tallahassee, FL 32301
(850) 521-1706

MEK

Cc:/Certificate of Service

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for Approval of Demand-Side) DOCKET NO.
Management Plan of Florida Public Utilities Company.) FILED: December 19, 2024
_____)

**PETITION OF FLORIDA PUBLIC UTILITIES COMPANY FOR APPROVAL OF
DEMAND-SIDE MANAGEMENT PLAN**

FLORIDA PUBLIC UTILITIES COMPANY (“FPUC” or “Company”), by and through its undersigned counsel, hereby petitions the Florida Public Service Commission (“FPSC” or “Commission”), pursuant to Sections 366.82 and 366.06, Florida Statutes, as well as Rule 25-17.0021, Florida Administrative Code, for approval of the Company’s Demand-Side Management (“DSM”) Plan and recovery of reasonable and prudent expenditures associated with the implementation of the programs under the DSM Plan. In support of this Petition, the Company states as follows:

1) FPUC is an electric utility subject to the Commission's jurisdiction in accordance with Chapter 366, Florida Statutes. Its principal business address is:

Florida Public Utilities Company
208 Wildlight Ave.
Yulee, FL 32097

2) The name and mailing address of the persons authorized to receive notices are:

Beth Keating
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mnapier@fpuc.com

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3) FPUC is subject to the Florida Energy Efficiency and Conservation Act (“FEECA”) and recovers costs associated with its conservation programs through the Commission’s Energy Conservation Cost Recovery Clause (“ECCR”). It currently has a DSM Plan in place, which was approved by Order No. PSC-2020-0274-PAA-EG. FPUC’s substantial interests will be affected by the Commission’s disposition of the instant Petition in that the Company has been directed by the Commission to develop its new DSM Plan in accordance with the goals established for the Company in Order No. PSC-2024-0431-FOF-EG, issued September 20, 2024, in Docket No. 20240015-EG (“2024 Order”), and to file such Plan within 90 days of the issuance of that Order. In its 2024 Order, the Commission approved a series of Type II stipulations, pursuant to which the Company’s proposed goals for the period 2025-2034 were found to be appropriate and acceptable. Consequently, FPUC’s DSM Plan submitted with this Petition is designed to address FPUC’s approved 10-year goals for residential energy efficiency of 3.8 GWh and for non-residential/commercial the proposed goal of 2.3 GWh, as well as the total proposed energy efficiency goal of 6.1 GWh.

I. BACKGROUND

4) Among the stated purposes of FEECA is to assure that Florida utilities (FEECA Utilities) utilize the most efficient and cost-effective demand-side renewable energy systems and conservation systems for the protection of the health, prosperity, and general welfare of the state and its citizens in order to promote a reduction in, and control of, the growth rates of electric consumption in Florida, and in particular, weather-sensitive peak demand.

5) In order to address these concerns and goals, the Legislature directed the Commission to set appropriate goals for the electric utilities consistent with FEECA’s objectives.

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The goals are expressed as projected annual KW and KWH savings, over a ten-year period, derived from potential demand-side management programs that pass both the Participants and Total Resource Costs tests.

II. DSM Plan

6) As required by Order No. PSC-2024-0431-FOF-EG, the Company has prepared its 2025 DSM Plan (“DSM Plan”) in accordance with the goals approved in that Order, as well as Rule 25-17.0021, Florida Administrative Code (2023). The programs contained in the DSM Plan are, as required, designed to achieve the goals set for the Company by the Commission. The DSM Plan is attached hereto as Attachment A.

8) While the Plan reflects limited changes from the Company’s previous Plan, the changes proposed appropriately reflect the Company’s updated goals. The proposed Plan retains certain key components, such as the successful Residential HVAC program and the Residential Energy Survey program, which is being rebranded as “Efficiency 1st.” As rebranded, the survey program will have a stronger emphasis on “do it yourself” energy-saving installations and includes a new, updated weatherization and home energy kit. FPUC is also introducing a new web-based platform to enhance the delivery of the Efficiency 1st survey program, streamlining engagement for participants. The Company also proposes to retain its Conservation Demonstration and Development Program, which, consistent with Rule 25-17.001(5)(f), F.A.C., will enable FPUC to continue to investigate new technologies that can serve as the basis for new, effective conservation programs.

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9) FPUC is also proposing to include a new low-income initiative called “Efficiency for All.” The first pilot project participant has already been identified, and the program will be implemented across multiple territories in 2025, with plans for permanent expansion in 2026.

10) Historically, FPUC’s commercial programs have had lower participation rates. Therefore, in an effort to change that, FPUC is diversifying its offerings with interior and exterior lighting incentives, a restructured commercial chiller incentive program and a continuation of the Commercial HVAC program.

III. Proposed LED Program Addendum

11) In addition to its DSM Plan, FPUC seeks approval of a new Light Emitting Diode (“LED”) Lighting Program, which it is submitting as a supplement to its DSM Plan. To be clear, FPUC’s DSM Plan, as described above, is designed to meet the goals approved for it by the Commission. The LED program proposed herein is an addition to the Plan and not imperative to FPUC’s ability to achieve its approved goals. Nonetheless, LED lighting has significant, recognized conservation benefits, and at least one other utility, Tampa Electric, has an approved conservation program designed around the replacement of traditional halide and sodium bulbs with LEDs¹. FPUC’s program is similar to Tampa Electric’s program in that the purpose is to facilitate conversion of FPUC’s entire fleet of 7,122 streetlamps with high-efficiency LEDs. Once fully implemented, this initiative is projected to achieve annual energy savings exceeding 4,000 MWh.

12) The Company is proposing to include this conservation program as a logical follow up to the Company’s 2022 modifications to its Rate Schedule LS to close its high pressure sodium

¹ See Order No. PSC-2018-0110-PAA-EI, issued February 27, 2018, in Docket No. 20170199-EI.

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(HPS) and metal halide (MH) offerings to new customers.² The modifications made at that time to Rate Schedule LS also included the addition of fifteen new LED fixture rate options: five cobra heads, four decorative, four flood lights, and two shoe box with varying lamp lumens and watt sizes. The charges for the new LED lighting fixtures are comprised of three components: the fixture, maintenance, and energy charges. In approving those changes, the Commission recognized that, “This should not only decrease energy used by FPUC subscribers but should also lower operating and maintenance costs for the utility.”³

13) The proposed program is structured as a temporary, two-year conservation initiative aimed at recovering depreciation and investment-related expenses through targeted conservation measures. Specifically, the program focuses on offsetting costs associated with converting 7,122 streetlamps to high-efficiency LEDs and recovering these expenses by leveraging energy savings achieved during the program’s two-year implementation period. The goal of the program will be to recover: 1) the undepreciated portion of old lights; 2) recover the return on investment on the increase to rate base net of the undepreciated old lights; 3) recovery of depreciation expense on the investment in new lights along with an allowance for property tax; and 4) recovery of communications and noticing costs to inform customers of the new program.

14) Under the program, the Company proposes to replace all remaining MH and HPS fixtures with LED equivalents over a two-year period, beginning in the first quarter of 2025. Consistent with the approved tariff modifications, the conversions will occur upon the earlier of either: 1) fixture failure; or 2) a systematic change-out strategy using dedicated crews. Both

² Order No. PSC-2022-0132-TRF-EI, issued April 8, 2022, in Docket No. 20220011-EI.

³ Id. at pg. 2.

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company personnel and contractors will assist in completing the project efficiently and within the two-year life of the program.

15) For purposes of cost recovery through the ECCR, the Company intends to file the requested recovery amount of unamortized costs for MH and HPS luminaires that have either been removed during the prior year and current year (i.e. true-ups) or are expected to be removed through the projection year. This unrecovered depreciation would be transferred to a regulatory asset and expensed to conservation on a per light unit cost as replaced.

16) The Company is not proposing recovery of any operational costs related to this program. If approved, FPUC would recover through its approved ECCR factors the unrecovered plant costs, less any accumulated depreciation, based upon actual luminaire replacements performed each month. Recovery of unamortized costs and associated communication expenditures discussed below would begin with the new ECCR factors in 2026. At the end of December 2024, the undepreciated balance for existing luminaires is estimated to be \$1,224,541.

17) The Company is also requesting recovery of the return on current investment, less the undepreciated investment, the depreciation expense, and property tax associated with net rate base addition consisting of the new LED luminaires over the life of the program amount to \$206,638. These two additional costs, along with recovery of the undepreciated lights being replaced, as well as the annual communication expenses required to notify, track, and report the conversions, results in an estimated total program cost of \$1,446,179. The unrecovered depreciation amount would then be adjusted in value at the commencement of the conversion program and placed in a regulatory asset. Every time a light is replaced, the regulatory asset would be reduced by \$171.94 and conservation expense increased. Under normal depreciation accounting with no additions to

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the plant in service amounts, the depreciation reserve balance is expected to increase over time resulting in the net book value of plant in service declining. The accounting associated with this Program is intended to assure that at the end of the two-year program the net book value of the MH and HPS luminaires would be zero. At the end of the 2-year program, the Company plans to file for a tariff rate change for lights to include the net unrecovered costs of the new lights.

18) With this Petition, and in addition to the documentation supporting the Company's standard DSM Plan, the Company is also providing the required supporting documentation of the cost-effectiveness of the proposed LED program. Under the required cost-effectiveness analysis, the LED program is demonstrably cost-effective:

Participant Cost Test:	NPV of \$3,516
Total Resource Cost Test:	TRC 1.824
Rate Impact Measure:	RIM 1.075

19) As the Commission has recognize in the past, implementation of LEDs can result in significant energy savings.⁴ Applying the criteria that the Commission has traditionally used to review the appropriateness of DSM programs, FPUC's proposed LED program: (1) advances the policy objectives of FEECA and its implementing rules; (2) is directly monitorable and will yield measurable results; and (3) is cost-effective.⁵

4 Id. at pg. 2-3.

5 Order No. 22176, issued November 14, 1989, in Docket No. 890737-PU, In re: Implementation of section 366.80-85 Florida Statutes, Conservation Activities of Electric and Natural Gas Utilities.

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20) The Company's DSM Plan, which, again, is attached as Attachment A, describes each program the Company will use to meet the established conservation goals. Consistent with recent revisions to Rule 25-17.0021, F.A.C., the proposed DSM Plan includes the participation standards.

IV. RELIEF

21) The Company's proposed DSM Plan will enable FPUC to achieve the goals set for the Company by the Commission, will yield measurable results, and is directly monitorable. The programs therein are also cost-effective using the cost-effectiveness methodology set forth in Rule 25-17.0021, F.A.C.

22) The addendum to the DSM Plan, FPUC's proposed LED conservation program is likewise consistent with the Commission's rules and the standard of review traditionally applied by the Commission to proposed conservation programs.

23) FPUC therefore files its 2025 DSM Plan, including the LED Program, for approval and asks that it be allowed to recover reasonable expenses associate therewith through the ECCR clause, subject to Commission review in that proceeding.

WHEREFORE, Florida Public Utilities Company hereby petitions the Commission for

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approval of the Company's 2025 DSM Plan, including the LED Program appended to the Plan, in its entirety.

Respectfully submitted this 19th day of December, 2024,

By: 

Beth Keating

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215 South Monroe St., Suite 601

Tallahassee, Florida 32301

(850) 521-1706

*Attorneys for Florida Public Utilities
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Petition for Approval of DSM Plan

Attachment A

2025 Demand-Side Management Plan

December 19, 2024

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1.0 Overview and Summary

1.1 Background

Sections 366.80 through 366.83 and 403.519, Florida Statutes (F.S.), are known collectively as the Florida Energy Efficiency and Conservation Act (FEECA). Section 366.82(2), F.S., requires the Florida Public Service Commission (“PSC” or “Commission”) to adopt appropriate goals designed to increase the efficiency of energy consumption. Pursuant to Section 366.82(6), F.S., the PSC must review the conservation goals of each utility subject to FEECA at least every five years.

The six utilities subject to FEECA are Florida Power & Light Company (FPL), Duke Energy Florida, Inc. (DEF), Tampa Electric Company (TECO), Florida Public Utilities Company (FPUC), JEA, and Orlando Utilities Commission (OUC)(referred to collectively as the FEECA utilities). Pursuant to Rule 25-17.0021 Florida Administrative Code (F.A.C.), numeric goals were last established for the FEECA Utilities by Order No. PSC-19-0509-FOF-EU, issued November 26, 2019.

Following the 2019 goal setting process, the Commission adopted certain changes to Rule 25-17.0021, F.A.C. (“Rule”), which provided greater emphasis during the goal-setting phase on the potential conservation programs that could be offered to customers in order to reach a utility’s approved goals.¹ Among other things, the amendments also clarified how the Commission would gather the information necessary to develop and assess potential goals and required that utilities’ projected savings and goals be developed under two cost-effectiveness scenarios where each scenario requires a different combination of cost-effectiveness tests be applied.

Since goals were last established in 2019 for the period beginning January 1, 2020, under the Rule, new goals had to be established by January 2025. The Commission therefore opened the following

¹ Order No. PSC-2023-0165-FOF-EU, issued May 18, 2023.

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dockets for each of the FEECA utilities in January 2024: Docket Nos. 20240012-EG (FPL), 20240013-EG(Duke), 20240014-EG(TECO), 20240015-EG(FPUC), 20240016-EG(JEA), and 20240017-EG(OUC). By Order No. PSC-2024-0022-PCO-EG, issued February 28, 2024, the dockets were consolidated for purposes of hearing, controlling dates were set, and a tentative list of issues was established. Following a robust discovery process, a series of proposed Type II stipulations were presented to the Commission for consideration. The Commission approved the proposed stipulations by a bench vote at the August 8, 2024, hearing, thereby resolving all issues for each of the FEECA utilities’ dockets. Thereafter, final orders were issued in each of the dockets reflecting the Commission’s approval of the stipulations as they pertained to the respective FEECA utilities. Order No. PSC-2024-0431-FOF-EG, issued September 20, 2024, in Docket No. 20240015-EG, memorializes the Commission’s approval of those stipulations as they relate to FPUC.

The remainder of the Florida Public Utilities Company’s 2025 DSM Plan compares projected annual DSM peak demand and energy reductions (consistent with the programs outlined in the DSM Plan) to the annual DSM goals established by the PS.

1.2 Commission Approved Numeric Conservation Goals

With the Commission electing to continue with the goals set in the last FEECA proceeding pursuant to the 224 Goalsetting Order, FPUC seeks approval of the current DSM Programs within DSM Plan. FPUC’s current Goals (2025-2034) issued via Order No. PSC-2024-0431-FOF-EG are depicted in the table below:

Annual MWh	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Res Audits/EE Kits	77	79	80	81	82	84	84	86	87	88
Res Heating & Cooling Upgrade	216	226	237	247	251	248	237	219	199	182
Res Low Income	70	70	70	70	70	70	70	70	70	70
Res Equipment Rebates	1	2	2	3	4	4	5	5	5	5
Residential Total	365	377	390	401	407	406	396	380	361	345
Com Heating & Cooling Upgrade	25	29	32	36	39	42	45	46	47	47
Com Chiller Upgrade	4	4	5	5	6	6	6	7	7	7
Com Lighting	70	96	125	157	188	216	236	247	247	240
Non-Residential Total	100	129	163	198	233	264	287	300	301	294
Portfolio Total	465	507	553	599	641	671	683	679	663	638

summer MW	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Res Audits/EE Kits	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Res Heating & Cooling Upgrade	0.03	0.04	0.04	0.05	0.05	0.05	0.05	0.04	0.03	0.03
Res Low Income	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Res Equipment Rebates	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Total	0.05	0.05	0.06	0.06	0.07	0.07	0.07	0.06	0.05	0.04
Com Heating & Cooling Upgrade	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Com Chiller Upgrade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Com Lighting	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03
Non-Residential Total	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.04
Portfolio Total	0.08	0.07	0.09	0.10	0.10	0.11	0.11	0.10	0.10	0.09

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winter MW	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Res Audits/EE Kits	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03
Res Heating & Cooling Upgrade	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.09
Res Low Income	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Res Equipment Rebates	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Total	0.15	0.15	0.16	0.16	0.16	0.15	0.15	0.15	0.14	0.14
Com Heating & Cooling Upgrade	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Com Chiller Upgrade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Com Lighting	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03
Non-Residential Total	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.04
Portfolio Total	0.17	0.17	0.18	0.18	0.19	0.19	0.19	0.19	0.18	0.18

1.3 Summary of Historical DSM Performance Versus Goals

FPUC’s reported DSM performance versus annual goals are depicted in the summary tables below.

Total Savings Across All Programs and Classes (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	0.560	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%
2017	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%
2019	0.107	0.043	248.84%	0.198	0.123	160.98%	0.414	0.201	206.00%
2020	0.143	0.046	311.50%	0.271	0.141	192.54%	0.532	0.228	233.26%
2021	0.097	0.049	198.48%	0.171	0.157	109.10%	0.325	0.249	130.52%
2022	0.101	0.061	167.55%	0.174	0.169	129.44%	0.3196	0.275	116.21%
2023	0.58	0.063	92.50%	0.098	0.182	53.60%	0.190	0.293	64.77%

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Commercial 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	0.080	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%
2019	0.000	0.018	-100.00%	0.010	0.045	-77.56%	0.0269	0.148	-81.79%
2020	0.001	0.018	-93.94%	0.018	0.052	-65.42%	0.0442	0.168	-73.70%
2021	0.002	0.018	-88.88%	0.004	0.058	-93.10%	0.0073	0.182	-95.98%
2022	0.000	0.027	-100.00%	0.000	0.058	-100.00%	0.0000	0.202	-100.00%
2023	0.000	0.027	-100.00%	0.000	0.065	-100.00%	0.0000	0.215	-100.00%

Residential Class Programs (At the Generator)

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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%
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%
2019	0.107	0.025	428.00%	0.188	0.078	241.03%	0.387	0.053	730.38%
2020	0.142	0.028	507.86%	0.253	0.089	283.43%	0.488	0.060	812.74%
2021	0.095	0.031	307.28%	0.167	0.099	168.98%	0.3177	0.067	474.21%
2022	0.101	0.034	297.05%	0.174	0.107	162.62	0.3196	0.073	437.80%
2023	0.058	0.036	161.88%	0.098	0.117	83.37%	0.190	0.078	243.29%

1.4 Discussion of Rate Impacts from Proposed Conservation Programs

**Florida Public Utilities Co.
2025 Demand-Side Management Plan**

The anticipated costs to administer the programs outlined in the 2025 DSM Plan align with traditional annual expenditures for conservation programs. However, forecasted ECCR rates for 2025 and 2026 are expected to be higher than usual due to the temporary two-year LED conversion program included in the plan.

The table below provides estimated impacts on the ECCR rate, expressed on a per-kWh basis and quantified as the monthly impact for a customer using 1,200 kWh. It includes both the forecasted DSM program administration costs and the LED conversion-related costs, along with their subsequent effects.

Year	Scenario	Projected kWh Sales (Assumes 3% Annual Increase)	Incremental Costs (\$)	ECCR Rate per kWh (\$)	Total ECCR Costs Expected Residential Monthly Impact (1,200 kWh)
2025	2025 DSM Plan Cost Impacts	604,365,000	\$ 731,191	0.00121	\$ 1.45
2025	2025 DSM Plan Cost Impacts w/ LED EC Fleet Conversion	604,365,000	\$ 1,454,281	0.00241	\$ 2.89
2026	2025 DSM Plan Cost Impacts	622,495,950	\$ 753,127	0.00121	\$ 1.45
2026	2025 DSM Plan Cost Impacts w/ LED EC Fleet Conversion	622,495,950	\$ 1,497,909	0.00241	\$ 2.89
2026	2025 DSM Plan Cost Impacts	622,495,950	\$ 775,721	0.00125	\$ 1.50
2026	2025 DSM Plan Cost Impacts w/ LED EC Fleet Conversion	622,495,950	\$ 1,542,847	0.00248	\$ 2.97
2027	2025 DSM Plan Cost Impacts	641,170,829	\$ 798,992	0.00125	\$ 1.50
2027	2025 DSM Plan Cost Impacts w/ LED EC Fleet Conversion	641,170,829	\$ -	0.00125	\$ 1.50
2028	2025 DSM Plan Cost Impacts	604,365,000	\$ 822,962	0.00136	\$ 1.63
2028	2025 DSM Plan Cost Impacts w/ LED EC Fleet Conversion	604,365,000	\$ -	0.00136	\$ 1.63

1.5 Overview of DSM Programs

**Florida Public Utilities Co.
2025 Demand-Side Management Plan**

The 2025 FPUC DSM plan is designed to achieve several objectives. These include retaining the successful Residential HVAC program and rebranding the Residential Energy Survey program as “Efficiency 1st,” with a stronger emphasis on DIY energy-saving installations. The revamped program introduces updated rebate amounts and a new weatherization and home energy kit component.

To address limited participation in commercial programs, FPUC is diversifying its offerings with an interior lighting option, a restructured commercial program, and increased rebate amounts for the Commercial HVAC program.

Additionally, FPUC is launching a new low-income initiative called “Efficiency for All.” The first pilot project participant has already been identified, and the program will be implemented across multiple territories in 2025, with plans for permanent expansion in 2026.

FPUC is also introducing a new web-based platform to enhance the delivery of the Efficiency 1st survey program, streamlining engagement for participants.

Finally, FPUC seeks to recover conversion-related costs to replace its entire fleet of 7,122 street lamps with high-efficiency LEDs. This initiative is projected to achieve annual energy savings exceeding 4,000 MWh. Proposed as a temporary two-year conservation program, it would operate alongside the annual DSM goals and not contribute to FPUC’s annual DSM goals, with depreciation and investment-related expenses recovered through conservation measures during the program's duration.

Residential Programs

- Residential Energy Survey Program (Efficiency First)
- Residential Heating & Cooling Efficiency Upgrade Program
- Low-Income Program (Efficiency for All)
- Residential Small Appliance Rebate Program

Commercial Programs

- Commercial Heating & Cooling Efficiency Upgrade Program
- Commercial Chiller Upgrade Program
- Commercial Indoor Lighting Program

Additional Conservation Programs

In addition to the commercial and residential programs aligned with annual DSM goals, FPUC is proposing two supplementary programs that are not tied to these goals. The first is a continuation of the Conservation Demonstration and Development (CDD) Program, and the second is a

temporary two-year conservation program designed to offset the depreciation and investment expenses associated with converting the entire fleet of 7,122 street lamps to high-efficiency LEDs. FPUC seeks to recover these costs through conservation measures over the program's two-year duration.

1.6 Organization of Plan

Section 2.0 presents details of the residential programs. Section 3.0 presents details of the commercial programs. Section 4.0 of the document includes the Conservation Demonstration & Development (CDD) Program, and Section 5 contains the LED Conversion Program proposal. Appendix A outlines the 2025 DSM Plan Program Standards; Appendix B provides the FPUC Program Planner and Residential Commercial Program Cost Effectiveness Excel Workbook (Available Electronically), Appendix C details the LED Cost Effectiveness Workbook and the corresponding cost-benefit analysis. Appendix D includes a detailed monthly schedule for the two-year program outlining all anticipated accounting transactions related to conservation efforts, and Appendix E contains the LED Conversion Program Standards.

2.0 Residential Programs

Overview and Background

The 2025-2034 DSM Plan for residential programs focuses on expanding and enhancing existing initiatives. Key objectives include updating the residential energy survey program, increasing incentives for the Residential Heating and Cooling Rebate Program, and introducing additional incentives for small appliance equipment to drive greater energy efficiency and participation.

2.1 Residential Energy Survey Program:

2.1.1 *Program Description: Efficiency First*

The objective of the Residential Energy Survey is to provide FPUC's residential customers with energy conservation advice that encourages the implementation of efficiency measures that result in energy savings for the customer. Once implemented, these measures also lower FPUC's energy requirements and improve operating efficiencies. FPUC views this program as a way of promoting the installation of cost-effective conservation features. During the survey process, the customer is provided with specific whole-house recommendations.

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Historically, FPUC had provided the customer with a conservation kit as appropriate. The kit included two CFL bulbs, weather stripping, chalk, insulators for wall sockets and light switches, and a water temperature thermometer. In 2017, the Conservation Kits were replaced with LEDs and Energy Savings Tips to better provide the customer with actual samples of low—and no-cost measures that the customer can take to reduce their energy costs.

FPUC has once again strongly emphasized weatherization kits and smart energy kits as key strategies for achieving accelerated energy savings per participant. A new merit-based system will be introduced to reward participants in the Efficiency First program. Under this system, energy survey participants will receive a weatherization kit. FPUC will then follow up through an automated process to verify the installation of the kit's contents. To further incentivize participation, FPUC will offer a smart home energy kit, including a smart thermostat and smart power strip, to participants who complete an energy quiz confirming the successful installation of the weatherization kit contents. This approach, sought via our Efficiency First program, aims to maximize engagement and energy savings.

2.1.2 Participation Standards

The Residential Energy Survey Program is available to all residential customers served by FPUC. The program provides participating customers with the information they need to determine which energy-saving measures are better suited to their individual needs and requirements. The Residential Energy Survey Program will provide audits in accordance with Rule 25-17.003 of the Florida Administrative Code and customers will be notified of this cost-free service every six months as required in Rule 25-17.003.

2.1.3 Rebates and Incentives

The Efficiency 1st Program incentivizes participants through a merit-based, two-phase reward system that fosters active engagement and energy-saving behavior. Instead of monetary rewards, participants earn non-cash incentives like weatherization and smart energy kits by completing specific actions.

In Phase One, participants complete an online energy survey, earning a weatherization kit with tools like weatherstripping and LED bulbs. In Phase Two, they install the kit's contents and confirm their use via a brief installation quiz. Successful completion rewards them with a smart energy kit, including advanced tools like programmable thermostats or smart plugs.

This approach ensures participants actively engage in both learning and applying energy-saving measures, creating lasting behavioral change while maximizing program impact.

2.1.4 Benefits and Costs

Avoided Energy estimates for benefits are **820 kWh** and were derived from the Technical, Economic, and Achievable Study conducted by Resource Innovations on behalf of FPUC, supporting the proposed 2024 DSM goals.

The estimated nonrecurring cost to Florida Public Utilities Company (FPUC) for the Residential Energy Survey **\$341** per participant.

2.1.5 Monitoring and Evaluation

The availability of the audit program is communicated to residential customers using bill inserts, newspaper advertisements, and other media. Each participating customer is presented with an assessment of his or her current energy situation and recommendations for improvement. FPUC can assist customers in locating qualified contractors to properly install the recommended changes.

FPUC conducts follow-up surveys after customers have implemented the specific recommendations. Data concerning these changes are accumulated so the impact of the energy surveys can be more accurately measured.

The reporting requirements for this program will follow Rule 25-17.0021 (5), Florida Administrative Code. Additionally, program expenses will be identified in the ECCR True-up and Projection filings.

2.1.6 Cost-Effectiveness

The main purpose of the energy audit is to discover energy efficiency options and changes that customers can choose to implement. Customers, on average, will choose to implement the most cost-effective options. Audit programs like this one serve energy customers by providing them with reliable information on which to base their energy efficiency decisions.

The following tables present a comprehensive overview of the program's key metrics, detailing the per-unit avoided energy assumptions, participation requirements, and the cost-effectiveness results along with their underlying assumptions. These elements are essential for evaluating the program's overall impact and feasibility.

Projected participation estimates were developed based on estimated market adoption rates that were, in turn, based on incentive amounts for the Program measures and the Bass Diffusion Model,

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which is a mathematical description of how new product adoption and penetration occurs over time given specified economic input values. Adoption curve input parameters were developed for each measure based on specific criteria, including measure maturity in the market, overall measure cost to and simple payback for the customer, and whether the measure was currently offered through FPUC’s DSM programs. Customer eligibility was based on FPUC’s forecasted customer counts and the population of customers eligible for measures included in the program. Per-participant kW and kWh reductions were based on estimated savings per installed measure consistent with the technical potential study developed for the 2024 FEECA goalsetting proceedings (Docket No. 20240015-EG), and total kW and kWh savings were calculated using Resource Innovations’ Technical Economic and Achievable Potential (TEA-POT) Model by applying the annual participation values estimated using the adoption curves to the per-participant savings for each measure in the program.

**Florida Public Utilities Company
Residential Energy Survey Program**

At the Meter:

Program Name:		Residential Energy Survey Program			Res Audits/EE Kits		
Calendar Year	Per Customer	Per Customer	Per Customer	Total Annual	Total Annual	Total Annual	
	kWh Reduction	Winter kW Reduction	Summer kW Reduction	kWh Reduction	Winter kW Reduction	Summer kW Reduction	
2025	796	0.19	0.18	117,854	29	27	
2026	818	0.19	0.21	131,650	31	33	
2027	836	0.19	0.22	146,287	34	39	
2028	850	0.19	0.24	158,864	36	45	
2029	855	0.19	0.25	167,606	37	48	
2030	857	0.19	0.25	168,743	37	48	
2031	845	0.19	0.23	160,539	36	44	
2032	824	0.19	0.21	146,715	34	38	
2033	795	0.19	0.18	131,116	32	30	
2034	770	0.19	0.16	117,087	30	24	

At the Generator:

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Program Name: Residential Energy Survey Program							
Calendar Year	Per Customer	Per Customer	Per Customer	Total Annual kWh Reduction	Total Annual	Total Annual	
	kWh Reduction	Winter kW Reduction	Summer kW Reduction		Winter kW Reduction	Summer kW Reduction	
2025	820	0.21	0.20	121,390	31	30	
2026	842	0.21	0.22	135,599	34	36	
2027	861	0.21	0.24	150,676	37	43	
2028	875	0.21	0.26	163,630	39	49	
2029	881	0.21	0.27	172,634	40	52	
2030	882	0.21	0.27	173,805	41	53	
2031	870	0.21	0.25	165,355	39	48	
2032	849	0.21	0.23	151,116	37	41	
2033	818	0.21	0.20	135,049	34	33	
2034	793	0.21	0.17	120,599	32	26	

Participation:

Program Name: Residential Energy Survey Program Res Audits/EE Kits						
Calendar Year	Total Number of	Total Number of	Projected Annual	Projected Cumulative	Projected	
	Customer	Eligible Customers	Average Number of Program Participants	Number of Program Participants	Cumulative Penetration Level %	
2025	25,996	25,996	148	148	0.57%	
2026	26,089	26,089	161	309	1.18%	
2027	26,182	26,182	175	484	1.85%	
2028	26,275	26,275	187	671	2.55%	
2029	26,369	26,369	196	867	3.29%	
2030	26,463	26,463	197	1,064	4.02%	
2031	26,557	26,557	190	1,254	4.72%	
2032	26,652	26,652	178	1,432	5.37%	
2033	26,747	26,747	165	1,597	5.97%	
2034	26,843	26,843	152	1,749	6.52%	

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TRC Test Results:

Program Name: Residential Energy Survey Program <small>Res Avoids/EE km</small>												
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Participant Program Costs \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit Benefits \$(000)	Avoided T&D Benefits \$(000)	Program Fuel Savings \$(000)	Tax Credit Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)
2025	\$0	\$54	\$16	\$0	\$70	\$0	\$0	\$72	\$0	\$72	\$1	\$1
2026	\$0	\$60	\$19	\$0	\$80	\$0	\$0	\$82	\$0	\$82	\$2	\$2
2027	\$0	\$67	\$23	\$0	\$89	\$0	\$0	\$93	\$0	\$93	\$3	\$3
2028	\$0	\$72	\$26	\$0	\$98	\$0	\$0	\$102	\$0	\$102	\$4	\$4
2029	\$0	\$76	\$27	\$0	\$104	\$0	\$0	\$109	\$0	\$109	\$5	\$4
2030	\$0	\$77	\$27	\$0	\$104	\$0	\$0	\$109	\$0	\$109	\$5	\$3
2031	\$0	\$73	\$25	\$0	\$99	\$0	\$0	\$103	\$0	\$103	\$4	\$3
2032	\$0	\$67	\$22	\$0	\$89	\$0	\$0	\$92	\$0	\$92	\$3	\$2
2033	\$0	\$60	\$18	\$0	\$78	\$0	\$0	\$79	\$0	\$79	\$1	\$1
2034	\$0	\$53	\$15	\$0	\$68	\$0	\$0	\$68	\$0	\$68	\$0	\$0
Nominal	\$0	\$660	\$219	\$0	\$879	\$0	\$0	\$908	\$0	\$908	\$30	
NPV	\$0	\$491	\$164	\$0	\$655	\$0	\$0	\$677	\$0	\$677	\$22	
Discount Rate	7%											
Benefit/Cost	1.03											

RIM Test Results:

Program Name: Residential Energy Survey Program <small>Res Avoids/EE km</small>													
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Incentives \$(000)	Revenue Losses \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit & Fuel Benefits \$(000)	Avoided T&D Benefits \$(000)	Revenue Gains \$(000)	Other Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)
2025	\$0	\$54	\$11	\$107	\$0	\$172	\$72	\$0	\$0	\$0	\$72	-\$100	-\$100
2026	\$0	\$60	\$12	\$120	\$0	\$192	\$82	\$0	\$0	\$0	\$82	-\$110	-\$103
2027	\$0	\$67	\$13	\$134	\$0	\$214	\$93	\$0	\$0	\$0	\$93	-\$121	-\$106
2028	\$0	\$72	\$14	\$146	\$0	\$233	\$102	\$0	\$0	\$0	\$102	-\$130	-\$106
2029	\$0	\$76	\$15	\$154	\$0	\$246	\$109	\$0	\$0	\$0	\$109	-\$137	-\$104
2030	\$0	\$77	\$15	\$155	\$0	\$247	\$109	\$0	\$0	\$0	\$109	-\$138	-\$98
2031	\$0	\$73	\$14	\$147	\$0	\$235	\$103	\$0	\$0	\$0	\$103	-\$132	-\$87
2032	\$0	\$67	\$13	\$134	\$0	\$214	\$92	\$0	\$0	\$0	\$92	-\$123	-\$75
2033	\$0	\$60	\$12	\$119	\$0	\$191	\$79	\$0	\$0	\$0	\$79	-\$112	-\$64
2034	\$0	\$53	\$11	\$106	\$0	\$170	\$68	\$0	\$0	\$0	\$68	-\$102	-\$54
Nominal	\$0	\$660	\$131	\$1,324	\$0	\$2,114	\$908	\$0	\$0	\$0	\$908	-\$1,206	
NPV	\$0	\$491	\$97	\$986	\$0	\$1,575	\$677	\$0	\$0	\$0	\$677	-\$897	
Discount Rate	7%												
Benefit/Cost	0.43												

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Participants Test Results:

Program Name: Residential Energy Survey Program													Risk: Medium-Low	
Year	Savings in				Total Benefits	Customer			Total Costs	Net Benefits	Cumulative Discounted Net Benefits			
	Participants Bills \$(000)	Tax Credits \$(000)	Utility Rebates \$(000)	Other Benefits \$(000)		Equipment Costs \$(000)	Customer O&M Costs \$(000)	Other Costs \$(000)						
2025	\$107	\$0	\$11	\$0	\$118	\$16	\$0	\$0	\$16	\$102	\$102			
2026	\$120	\$0	\$12	\$0	\$132	\$19	\$0	\$0	\$19	\$113	\$105			
2027	\$134	\$0	\$13	\$0	\$147	\$23	\$0	\$0	\$23	\$125	\$108			
2028	\$146	\$0	\$14	\$0	\$160	\$26	\$0	\$0	\$26	\$135	\$109			
2029	\$154	\$0	\$15	\$0	\$169	\$27	\$0	\$0	\$27	\$142	\$108			
2030	\$155	\$0	\$15	\$0	\$170	\$27	\$0	\$0	\$27	\$143	\$101			
2031	\$147	\$0	\$14	\$0	\$162	\$25	\$0	\$0	\$25	\$136	\$90			
2032	\$134	\$0	\$13	\$0	\$147	\$22	\$0	\$0	\$22	\$125	\$77			
2033	\$119	\$0	\$12	\$0	\$131	\$18	\$0	\$0	\$18	\$113	\$65			
2034	\$106	\$0	\$11	\$0	\$117	\$15	\$0	\$0	\$15	\$102	\$55			
Nominal	\$1,324	\$0	\$131	\$0	\$1,455	\$219	\$0	\$0	\$219	\$1,235				
NPV	\$986	\$0	\$97	\$0	\$1,084	\$164	\$0	\$0	\$164	\$920				
Discount Rate	7%													
Benefit/Cost	6.61													

Assumptions:

PROGRAM: Residential Energy Survey Program												
I. PROGRAM DEMAND SAVINGS AND LINE LOSSES												
(1) CUSTOMER KW REDUCTION AT THE METER	0.19	KW /CUST										
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.21	KW GEN/CUST										
(3) KW LINE LOSS PERCENTAGE	8.9	%										
(4) GENERATION KWH REDUCTION PER CUSTOMER	820	KWH/CUST/YR										
(5) KWH LINE LOSS PERCENTAGE	3	%										
(6) GROUP LINE LOSS MULTIPLIER	1.0											
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR										
(8)* CUSTOMER KWH REDUCTION AT METER	796	KWH/CUST/YR										
II. ECONOMIC LIFE AND K FACTORS												
(1) STUDY PERIOD FOR CONSERVATION PROGRAM	10	YEARS										
(2) GENERATOR ECONOMIC LIFE	10	YEARS										
(3) T & D ECONOMIC LIFE	10	YEARS										
(4) K FACTOR FOR GENERATION	0											
(5) K FACTOR FOR T & D	0											
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1											
III. UTILITY AND CUSTOMER COSTS												
(1)** UTILITY NONRECURRING COST PER CUSTOMER	363	\$/CUST										
(2)** UTILITY RECURRING COST PER CUSTOMER	0.0	\$/CUST/YR										
(3) UTILITY COST ESCALATION RATE	2.3	%										
(4) CUSTOMER EQUIPMENT COST	111	\$/CUST										
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%										
(6) CUSTOMER O & M COST	0.0	\$/CUST/YR										
(7) CUSTOMER O & M ESCALATION RATE	2.3	%										
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0	\$/CUST										
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3	%										
(10)* INCREASED SUPPLY COSTS	0.0	\$/CUST/YR										
(11)* SUPPLY COSTS ESCALATION RATE	2.3	%										
(12)* UTILITY DISCOUNT RATE	7.2	%										
(13)* UTILITY AFUDC RATE	0.0	%										
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	72	\$/CUST										
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.0	\$/CUST/YR										
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0.0	%										
IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS												
(1) BASE YEAR	2025											
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2015											
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2015											
(4) BASE YEAR AVOIDED GENERATING UNIT COST	0	\$/KW										
(5) BASE YEAR AVOIDED TRANSMISSION COST	0	\$/KW										
(6) BASE YEAR DISTRIBUTION COST	0	\$/KW										
(7) GEN, TRAN, & DIST COST ESCALATION RATE	0	%										
(8) GENERATOR FIXED O & M COST	0	\$/KW/YR										
(9) GENERATOR FIXED O&M ESCALATION RATE	0	%										
(10) TRANSMISSION FIXED O & M COST	0.89	\$/KW/YR										
(11) DISTRIBUTION FIXED O & M COST	22.01	\$/KW/YR										
(12) T&D FIXED O&M ESCALATION RATE	2.3	%										
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0	CENTS/KWH										
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	0	%										
(15) GENERATOR CAPACITY FACTOR	48.8	%										
(16) AVOIDED GENERATING UNIT FUEL COST	5.446	CENTS/KWH										
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	0.1	%										
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	172.18	\$/KW/YR										
(19)* CAPACITY COST ESCALATION RATE	2.7	%										
V. NON-FUEL ENERGY AND DEMAND CHARGES												
(1) NON-FUEL COST IN CUSTOMER BILL	2.37	CENTS/KWH										
(2) NON-FUEL ESCALATION RATE	1.2	%										
(3) CUSTOMER DEMAND CHARGE PER KW	0.0	\$/KW/MO										
(4) DEMAND CHARGE ESCALATION RATE	0.0	%										
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0											
* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK												
** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).												

2.2 Residential Heating & Cooling Efficiency Upgrade Program

2.2.1 *Program Description*

Our incentive program aims to curb the growth of peak energy demand across Florida Public Utilities Company's (FPUC) service areas by promoting the adoption of high-efficiency heat pumps and central air conditioning systems. To qualify, customers must install one of the qualifying systems. The program offers two rebate tiers based on the system's Seasonal Energy Efficiency Ratio (SEER) or the updated SEER2 rating: Tier 1 provides a \$250 rebate for systems with a SEER ranging from the current DOE minimum of 15 SEER (14.3 SEER2) to 17.7 (equivalent to SEER2 below 17), while Tier 2 offers a \$500 rebate for systems with a SEER of 17.7 or higher (SEER2 of 17 or above). This structure ensures that more efficient systems receive higher rebates, encouraging energy conservation and reducing utility costs. The Residential Heating & Cooling Efficiency Upgrade Program focuses on two key areas: encouraging customers with inefficient heat pumps and air conditioners to upgrade to more efficient units and motivating those replacing end-of-life systems to choose units exceeding current codes and standards. This incentive also applies to new construction residences. By promoting the installation of high-efficiency equipment, the program aims to enhance energy efficiency, reduce peak demand, and support environmental sustainability.

2.2.2 *Participation Standards*

- The program applies to straight air conditioners or heat pumps.
- The program applies to replacements as well as new installations.
- The residential dwelling must be an existing single-family structure in FPUC's electric service territory. Mobile homes are eligible if their wheels have been removed and they are set on a lot.
- For a new heat pump installed or a heat pump being replaced, the maximum supplemental strip heating physically contained in the system shall not exceed 2 kW per nominal ton. On a system of less than 2.5 tons, a 5 kW heat strip will be allowed.
- For a heat pump using supplemental strip heating, a two-stage indoor thermostat is required.
- If replacing a straight cooling system, the residence cannot have oil or electric resistance as the primary heat source.
- In the situation where a replacement heating and cooling system will qualify for two rebates (FPUC's and a gas company's), FPUC will not pay its rebate so that a double payment is avoided.

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- HVAC contractors will submit rebate request forms to FPUC. The contractor, certifying that the equipment installed accords with the program standards, will sign the form. The customer will sign the form verifying that the equipment was installed and that the incentive recipient's name and mailing address are correct.
- The Heating and Cooling Rebate request form must be received within 30 days of the installation date of the unit to assure the payment of the dealer incentive.
- FPUC will randomly perform full field verifications on a minimum of 10 percent of the participating homes. Homes not selected for the field review will have a telephone or written verification to validate the rebate information.
- FPUC will inspect all mobile home applications to ensure that the wheels are removed and they are set on a lot.
- No payments will be made until FPUC verifies or validates rebate requests.

2.2.3 *Rebates and Incentives*

Our incentive program offers two tiers of rebates to encourage the adoption of high-efficiency air-source heat pumps (ASHP) and ground-source heat pumps (GSHP) in residential settings. These incentives are structured to promote energy conservation and reduce utility costs by rewarding the installation of more efficient systems.

Central System Tier 1: Eligible for a \$250 rebate, this tier includes:

- ASHPs with a minimum efficiency of 15 SEER (14.3 SEER2) when replacing electric resistance heating.
- ASHPs that are ENERGY STAR certified or meet CEE Tier 1 or Tier 2 criteria, with a minimum efficiency of 16 SEER (15.2 SEER2) and 9.0 HSPF.

Central System Tier 2: Offering a \$500 rebate, this tier encompasses:

- ASHPs that comply with the CEE Advanced Tier, with a minimum efficiency of 17.8 SEER (17 SEER2) and 10.0 HSPF, replacing either electric resistance heating or existing ASHP.
-
- ENERGY STAR-certified ground-source heat pumps.

Additional Equipment

- Ductless Mini-split systems 1 ton or larger, with a minimum efficiency of 16 SEER (15.2 SEER2) and 9.0 HSPF are eligible for a rebate of \$100/system

2.2.4 *Benefits and Costs*

Revised estimates, derived from a statewide technical potential study conducted over the past two years in preparation for the current goals docket and the 2025 Demand Side Management (DSM) plan, project a demand reduction of 1.48 kW per customer and an annual energy savings of 2,350 kWh per customer. The nonrecurring cost to Florida Public Utilities Company (FPUC) is projected at \$450 per participant.

2.4.5 *Monitoring and Evaluation*

Reasons for program participation and non-participation will be assessed through interviews conducted with program participants, non-participants and dealers. Depending upon the level of participation, surveys may be conducted among customers having upgraded their systems to determine customer satisfaction with the upgrades.

The reporting requirements for this program will follow Rule 25-17.0021 (5), Florida Administrative Code. Additionally, program expenses will be identified in the ECCR True-up and Projection filings.

2.2.6 *Cost-Effectiveness*

The following tables provide a detailed summary of the program's key metrics, including per-unit avoided energy assumptions, participation requirements, and cost-effectiveness results with their underlying assumptions. These components are crucial for assessing the program's overall impact and feasibility.

Projected participation estimates were developed based on estimated market adoption rates that were, in turn, based on incentive amounts for the Program measures and the Bass Diffusion Model, which is a mathematical description of how new product adoption and penetration occurs over time given specified economic input values. Adoption curve input parameters were developed for each measure based on specific criteria, including measure maturity in the market, overall measure cost to and simple payback for the customer, and whether the measure was currently offered through FPUC's DSM programs. Customer eligibility was based on FPUC's forecasted customer counts and the population of customers eligible for measures included in the program. Per-participant kW and kWh reductions were based on estimated savings per installed measure consistent with the technical potential study developed for the 2024 FEECA goalsetting proceedings (Docket No. 20240015-EG), and total kW and kWh savings were calculated using Resource Innovations' Technical Economic and Achievable Potential (TEA-POT) Model by applying the annual participation values estimated using the adoption curves to the per-participant savings for each measure in the program.

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At the Meter:

Program Name:		Residential Heating and Cooling Upgrade			Res. Heating & Cooling Upgrade		
Calendar Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction	
2025	2,282	1.36	0.14	175,687	105	11	
2026	2,252	1.34	0.15	173,390	103	11	
2027	2,250	1.33	0.15	171,011	101	11	
2028	2,247	1.33	0.15	168,527	100	12	
2029	2,184	1.29	0.15	165,951	98	12	
2030	2,149	1.26	0.15	163,287	96	12	
2031	2,170	1.27	0.16	160,545	94	12	
2032	2,132	1.24	0.16	157,792	92	12	
2033	2,124	1.23	0.16	155,034	90	12	
2034	2,115	1.22	0.17	152,273	88	12	

At the Generator

Program Name:		Residential Heating and Cooling Upgrade			Res. Heating & Cooling Upgrade		
Calendar Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction	
2025	2,350	1.48	0.16	180,958	114	12	
2026	2,319	1.46	0.16	178,592	112	12	
2027	2,318	1.45	0.16	176,142	110	12	
2028	2,314	1.45	0.17	173,583	108	13	
2029	2,249	1.40	0.17	170,929	106	13	
2030	2,213	1.37	0.17	168,186	104	13	
2031	2,235	1.38	0.17	165,361	102	13	
2032	2,196	1.35	0.18	162,526	100	13	
2033	2,187	1.34	0.18	159,685	98	13	
2034	2,178	1.33	0.18	156,841	96	13	

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Participation:

Program Name: Residential Heating and Cooling Upgrade <i>Res Heating & Cooling Upgrade</i>						
Calendar Year	Total Number of Customer	Total Number of Eligible Customers	Projected Annual Average Number of Program Participants	Projected Cumulative Number of Program Participants	Projected Cumulative Penetration Level %	
2025	25,996	25,996	77	77	0.30%	
2026	26,089	26,089	77	154	0.59%	
2027	26,182	26,182	76	230	0.88%	
2028	26,275	26,275	75	305	1.16%	
2029	26,369	26,369	76	381	1.44%	
2030	26,463	26,463	76	457	1.73%	
2031	26,557	26,557	74	531	2.00%	
2032	26,652	26,652	74	605	2.27%	
2033	26,747	26,747	73	678	2.53%	
2034	26,843	26,843	72	750	2.79%	

TRC Results:

Program Name: Residential Heating and Cooling Upgrade <i>Res Heating & Cooling Upgrade</i>													
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Participant Program Costs \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit Benefits \$(000)	Avoided T&D Benefits \$(000)	Program Fuel Savings \$(000)	Tax Credit Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)	
2025	\$0	\$35	\$136	\$0	\$171	\$0	\$0	\$126	\$44	\$170	-\$1	-\$1	
2026	\$0	\$34	\$134	\$0	\$168	\$0	\$0	\$124	\$43	\$168	-\$1	-\$1	
2027	\$0	\$34	\$132	\$0	\$166	\$0	\$0	\$123	\$43	\$166	-\$1	-\$1	
2028	\$0	\$33	\$130	\$0	\$163	\$0	\$0	\$121	\$42	\$163	-\$1	\$0	
2029	\$0	\$33	\$128	\$0	\$161	\$0	\$0	\$119	\$41	\$160	-\$1	\$0	
2030	\$0	\$32	\$126	\$0	\$158	\$0	\$0	\$117	\$41	\$158	-\$1	\$0	
2031	\$0	\$32	\$124	\$0	\$156	\$0	\$0	\$115	\$40	\$155	\$0	\$0	
2032	\$0	\$31	\$122	\$0	\$153	\$0	\$0	\$113	\$39	\$153	\$0	\$0	
2033	\$0	\$31	\$120	\$0	\$150	\$0	\$0	\$111	\$39	\$150	\$0	\$0	
2034	\$0	\$30	\$117	\$0	\$148	\$0	\$0	\$109	\$38	\$147	\$0	\$0	
Nominal	\$0	\$324	\$1,270	\$0	\$1,594	\$0	\$0	\$1,179	\$409	\$1,589	-\$5		
NPV	\$0	\$244	\$956	\$0	\$1,201	\$0	\$0	\$888	\$308	\$1,196	(\$4)		
Discount Rate	7%												
Benefit/Cost	1.00												

RIM Results:

Program Name: Residential Heating and Cooling Upgrade <i>Res Heating & Cooling Upgrade</i>														
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Incentives \$(000)	Revenue Losses \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit & Fuel Benefits \$(000)	Avoided T&D Benefits \$(000)	Revenue Gains \$(000)	Other Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)	
2025	\$0	\$35	\$21	\$189	\$0	\$244	\$126	\$0	\$0	\$0	\$126	-\$118	-\$118	
2026	\$0	\$34	\$21	\$186	\$0	\$241	\$124	\$0	\$0	\$0	\$124	-\$117	-\$109	
2027	\$0	\$34	\$20	\$184	\$0	\$237	\$123	\$0	\$0	\$0	\$123	-\$115	-\$100	
2028	\$0	\$33	\$19	\$181	\$0	\$234	\$121	\$0	\$0	\$0	\$121	-\$113	-\$92	
2029	\$0	\$33	\$19	\$178	\$0	\$231	\$119	\$0	\$0	\$0	\$119	-\$111	-\$84	
2030	\$0	\$32	\$19	\$176	\$0	\$227	\$117	\$0	\$0	\$0	\$117	-\$110	-\$78	
2031	\$0	\$32	\$18	\$173	\$0	\$223	\$115	\$0	\$0	\$0	\$115	-\$107	-\$71	
2032	\$0	\$31	\$18	\$170	\$0	\$219	\$113	\$0	\$0	\$0	\$113	-\$106	-\$65	
2033	\$0	\$31	\$18	\$167	\$0	\$215	\$111	\$0	\$0	\$0	\$111	-\$104	-\$60	
2034	\$0	\$30	\$17	\$164	\$0	\$211	\$109	\$0	\$0	\$0	\$109	-\$102	-\$54	
Nominal	\$0	\$324	\$191	\$1,767	\$0	\$2,282	\$1,179	\$0	\$0	\$0	\$1,179	-\$1,103		
NPV	\$0	\$244	\$144	\$1,330	\$0	\$1,719	\$888	\$0	\$0	\$0	\$888	-\$831		
Discount Rate	7%													
Benefit/Cost	0.52													

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PT Results:

Program Name: Residential Heating and Cooling Upgrade <i>Res Heating & Cooling Upgrade</i>												
Year	Savings In				Customer				Total Costs	Net Benefits	Cumulative Discounted Net Benefits	
	Participants	Tax Credits	Utility Rebates	Other Benefits	Total Benefits	Equipment Costs	Customer O&M Costs	Other Costs				
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	
2025	\$189	\$44	\$21	\$0	\$254	\$136	\$0	\$0	\$136	\$118	\$118	
2026	\$186	\$43	\$21	\$0	\$250	\$134	\$0	\$0	\$134	\$116	\$108	
2027	\$184	\$43	\$20	\$0	\$246	\$132	\$0	\$0	\$132	\$114	\$99	
2028	\$181	\$42	\$19	\$0	\$243	\$130	\$0	\$0	\$130	\$112	\$91	
2029	\$178	\$41	\$19	\$0	\$239	\$128	\$0	\$0	\$128	\$111	\$84	
2030	\$176	\$41	\$19	\$0	\$236	\$126	\$0	\$0	\$126	\$109	\$77	
2031	\$173	\$40	\$18	\$0	\$231	\$124	\$0	\$0	\$124	\$107	\$71	
2032	\$170	\$39	\$18	\$0	\$227	\$122	\$0	\$0	\$122	\$105	\$65	
2033	\$167	\$39	\$18	\$0	\$223	\$120	\$0	\$0	\$120	\$103	\$59	
2034	\$164	\$38	\$17	\$0	\$219	\$117	\$0	\$0	\$117	\$101	\$54	
Nominal	\$1,767	\$409	\$191	\$0	\$2,368	\$1,270	\$0	\$0	\$1,270	\$1,098		
NPV	\$1,330	\$308	\$144	\$0	\$1,783	\$956	\$0	\$0	\$956	\$827		
Discount Rate		7%										
Benefit/Cost		1.86										

Assumptions:

PROGRAM: Residential Heating and Cooling Upgrade		
I. PROGRAM DEMAND SAVINGS AND LINE LOSSES		
(1) CUSTOMER KW REDUCTION AT THE METER	1.36 KW/CUST	
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.48 KW GEN/CUSTOMER	
(3) KW LINE LOSS PERCENTAGE	8.9 %	
(4) GENERATION KWH REDUCTION PER CUSTOMER	2,350 KWH/CUST/YR	
(5) KWH LINE LOSS PERCENTAGE	3 %	
(6) GROUP LINE LOSS MULTIPLIER	1.0	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0 KWH/CUST/YR	
(8)* CUSTOMER KWH REDUCTION AT METER	2,282 KWH/CUST/YR	
II. ECONOMIC LIFE AND K FACTORS		
(1) STUDY PERIOD FOR CONSERVATION PROGRAM	10 YEARS	
(2) GENERATOR ECONOMIC LIFE	10 YEARS	
(3) T & D ECONOMIC LIFE	10 YEARS	
(4) K FACTOR FOR GENERATION	0	
(5) K FACTOR FOR T & D	0	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	
III. UTILITY AND CUSTOMER COSTS		
(1)** UTILITY NONRECURRING COST PER CUSTOMER	450 \$/CUST	
(2)** UTILITY RECURRING COST PER CUSTOMER	0.0 \$/CUST/YR	
(3) UTILITY COST ESCALATION RATE	2.3 %	
(4) CUSTOMER EQUIPMENT COST	1,766 \$/CUST	
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3 %	
(6) CUSTOMER O & M COST	0.0 \$/CUST/YR	
(7) CUSTOMER O & M ESCALATION RATE	2.3 %	
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	570 \$/CUST	
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3 %	
(10)* INCREASED SUPPLY COSTS	0.0 \$/CUST/YR	
(11)* SUPPLY COSTS ESCALATION RATE	2.3 %	
(12)* UTILITY DISCOUNT RATE	7.2 %	
(13)* UTILITY AFUDC RATE	0.0 %	
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	270 \$/CUST	
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.0 \$/CUST/YR	
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0.0 %	
IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS		
(1) BASE YEAR	2025	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2015	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2015	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	0 \$/KW	
(5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW	
(6) BASE YEAR DISTRIBUTION COST	0 \$/KW	
(7) GEN, TRAN, & DIST COST ESCALATION RATE	0 %	
(8) GENERATOR FIXED O & M COST	0 \$/KW/YR	
(9) GENERATOR FIXED O&M ESCALATION RATE	0 %	
(10) TRANSMISSION FIXED O & M COST	0.80 \$/KW/YR	
(11) DISTRIBUTION FIXED O & M COST	22.01 \$/KW/YR	
(12) T&D FIXED O&M ESCALATION RATE	2.3 %	
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0 CENTS/KWH	
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	0 %	
(15) GENERATOR CAPACITY FACTOR	48.8 %	
(16) AVOIDED GENERATING UNIT FUEL COST	5.446 CENTS/KWH	
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	0.1 %	
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	172.18 \$/KW/YR	
(19)* CAPACITY COST ESCALATION RATE	2.7 %	
V. NON-FUEL ENERGY AND DEMAND CHARGES		
(1) NON-FUEL COST IN CUSTOMER BILL	2.37 CENTS/KWH	
(2) NON-FUEL ESCALATION RATE	1.2 %	
(3) CUSTOMER DEMAND CHARGE PER KW	0.0 \$/KW/MO	
(4) DEMAND CHARGE ESCALATION RATE	0.0 %	
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK
** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

Residential Small Appliance Program

2.3.1 Program Description

Our incentive program offers a \$25 rebate to residential customers who purchase an ENERGY STAR-certified clothes washer. These washers use approximately 20% less energy and 30% less water than standard models, leading to significant utility savings over time.

ENERGY STAR

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By promoting the adoption of high-efficiency appliances, this program aims to reduce household utility costs and environmental impact. Encouraging the use of ENERGY STAR-certified clothes washers serves as a foundational step toward expanding similar incentives to other energy-efficient technologies in the future.

2.3.2 Participation Standards

To qualify for the \$25 rebate for ENERGY STAR-certified clothes washers, customers must be residential account holders with Florida Public Utilities Company (FPUC), purchase an eligible ENERGY STAR-certified clothes washer, provide a valid sales receipt or invoice detailing the purchase, and submit a completed rebate application with the necessary documentation within 90 days of purchase. .

2.3.3 Rebates and Incentives

Florida Public Utilities Company (FPUC) offers a \$25 rebate to residential customers who purchase an ENERGY STAR-certified clothes washer.

2.3.4 Benefits and Costs

Based on a recent statewide technical potential study conducted over the past two years in preparation for the current goals docket and the 2025 Demand Side Management (DSM) plan, Florida Public Utilities Company (FPUC) projects that the program will achieve a demand reduction of 0.04 kW per customer and an annual energy savings of 238 kWh per customer. The nonrecurring cost to FPUC is estimated at \$69 per participant.

2.3.5 Monitoring and Evaluation

To evaluate the factors influencing program participation and non-participation, we will conduct interviews with participants, non-participants, and dealers. Depending on participation levels, we may also survey customers who have upgraded their systems to assess satisfaction with the improvements. Reporting for this program will adhere to Rule 25-17.0021(5) of the Florida Administrative Code. Additionally, program expenses will be detailed in the Energy Conservation Cost Recovery (ECCR) True-Up and Projection filings.

2.3.6 Cost-Effectiveness

The following tables provide a comprehensive overview of the program's key metrics, encompassing per-unit avoided energy assumptions, participation requirements, and cost-effectiveness results along with their underlying assumptions. These elements are essential for evaluating the program's overall impact and feasibility.

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Projected participation estimates were developed based on estimated market adoption rates that were, in turn, based on incentive amounts for the Program measures and the Bass Diffusion Model, which is a mathematical description of how new product adoption and penetration occurs over time given specified economic input values. Adoption curve input parameters were developed for each measure based on specific criteria, including measure maturity in the market, overall measure cost to and simple payback for the customer, and whether the measure was currently offered through FPUC’s DSM programs. Customer eligibility was based on FPUC’s forecasted customer counts and the population of customers eligible for measures included in the program. Per-participant kW and kWh reductions were based on estimated savings per installed measure consistent with the technical potential study developed for the 2024 FEECA goalsetting proceedings (Docket No. 20240015-EG), and total kW and kWh savings were calculated using Resource Innovations’ Technical Economic and Achievable Potential (TEA-POT) Model by applying the annual participation values estimated using the adoption curves to the per-participant savings for each measure in the program.

At the Meter:

Program Name:		Residential Small Appliance Program			Res. Equipment Rebates		
Calendar Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction	
2025	231	0.02	0.04	1,388	0	0	
2026	239	0.03	0.04	1,909	0	0	
2027	249	0.03	0.04	2,494	0	0	
2028	259	0.03	0.04	3,105	0	0	
2029	264	0.03	0.04	3,693	0	1	
2030	263	0.03	0.04	4,209	0	1	
2031	257	0.03	0.04	4,619	0	1	
2032	259	0.03	0.04	4,917	1	1	
2033	256	0.03	0.04	5,116	1	1	
2034	262	0.03	0.04	5,239	1	1	

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At the Generator:

Program Name: Residential Small Appliance Program							
Calendar Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction	
2025	238	0.03	0.04	1,430	0	0	
2026	246	0.03	0.04	1,966	0	0	
2027	257	0.03	0.04	2,569	0	0	
2028	267	0.03	0.04	3,198	0	1	
2029	272	0.03	0.04	3,804	0	1	
2030	271	0.03	0.04	4,335	0	1	
2031	264	0.03	0.04	4,757	1	1	
2032	267	0.03	0.04	5,065	1	1	
2033	263	0.03	0.04	5,270	1	1	
2034	270	0.03	0.04	5,396	1	1	

Participation:

Program Name: Residential Small Appliance Program Res Equipment Rebates							
Calendar Year	Total Number of Customer	Total Number of Eligible Customers	Projected Annual Average Number of Program Participants	Projected Cumulative Number of Program Participants	Projected Cumulative Penetration Level %		
2025	25,996	25,996	6	6	0.02%		
2026	26,089	26,089	8	14	0.05%		
2027	26,182	26,182	10	24	0.09%		
2028	26,275	26,275	12	36	0.14%		
2029	26,369	26,369	14	50	0.19%		
2030	26,463	26,463	16	66	0.25%		
2031	26,557	26,557	18	84	0.32%		
2032	26,652	26,652	19	103	0.39%		
2033	26,747	26,747	20	123	0.46%		
2034	26,843	26,843	20	143	0.53%		

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TRC Results:

Program Name: Residential Small Appliance Program <small>Res. Equipment Rebates</small>												
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Participant Program Costs \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit Benefits \$(000)	Avoided T&D Benefits \$(000)	Program Fuel Savings \$(000)	Tax Credit Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)
2025	\$0	\$0	\$0	\$0	\$0	\$1	\$0	\$0	\$1	\$0	\$1	\$0
2026	\$0	\$1	\$1	\$1	\$0	\$1	\$0	\$0	\$1	\$0	\$1	\$0
2027	\$0	\$1	\$1	\$1	\$0	\$2	\$0	\$0	\$2	\$0	\$2	\$0
2028	\$0	\$1	\$1	\$1	\$0	\$2	\$0	\$0	\$2	\$0	\$2	\$0
2029	\$0	\$1	\$1	\$1	\$0	\$2	\$0	\$0	\$3	\$0	\$3	\$0
2030	\$0	\$1	\$1	\$1	\$0	\$3	\$0	\$0	\$3	\$0	\$3	\$0
2031	\$0	\$1	\$2	\$2	\$0	\$3	\$0	\$0	\$3	\$0	\$3	\$0
2032	\$0	\$1	\$2	\$2	\$0	\$3	\$0	\$0	\$4	\$0	\$4	\$1
2033	\$0	\$2	\$2	\$2	\$0	\$3	\$0	\$0	\$4	\$0	\$4	\$1
2034	\$0	\$2	\$2	\$2	\$0	\$3	\$0	\$0	\$4	\$0	\$4	\$1
Nominal	\$0	\$11	\$12	\$0	\$23	\$0	\$0	\$27	\$0	\$27	\$4	
NPV	\$0	\$8	\$9	\$0	\$16	\$0	\$0	\$19	\$0	\$19	\$3	
Discount Rate	7%											
Benefit/Cost	1.16											

RIM Results:

Program Name: Residential Small Appliance Program <small>Res. Equipment Rebates</small>													
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Incentives \$(000)	Revenue Losses \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit & Fuel Benefits \$(000)	Avoided T&D Benefits \$(000)	Revenue Gains \$(000)	Other Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)
2025	\$0	\$0	\$0	\$0	\$2	\$0	\$2	\$1	\$0	\$0	\$0	\$1	-\$1
2026	\$0	\$1	\$0	\$0	\$2	\$0	\$3	\$1	\$0	\$0	\$0	\$1	-\$2
2027	\$0	\$1	\$0	\$0	\$3	\$0	\$4	\$2	\$0	\$0	\$0	\$2	-\$2
2028	\$0	\$1	\$0	\$0	\$3	\$0	\$5	\$2	\$0	\$0	\$0	\$2	-\$2
2029	\$0	\$1	\$0	\$0	\$4	\$0	\$6	\$3	\$0	\$0	\$0	\$3	-\$3
2030	\$0	\$1	\$0	\$0	\$5	\$0	\$6	\$3	\$0	\$0	\$0	\$3	-\$3
2031	\$0	\$1	\$1	\$0	\$5	\$0	\$7	\$3	\$0	\$0	\$0	\$3	-\$4
2032	\$0	\$1	\$1	\$0	\$5	\$0	\$7	\$4	\$0	\$0	\$0	\$4	-\$4
2033	\$0	\$2	\$1	\$0	\$6	\$0	\$8	\$4	\$0	\$0	\$0	\$4	-\$4
2034	\$0	\$2	\$1	\$0	\$6	\$0	\$8	\$4	\$0	\$0	\$0	\$4	-\$4
Nominal	\$0	\$11	\$4	\$40	\$0	\$56	\$27	\$27	\$0	\$0	\$27	-\$28	
NPV	\$0	\$8	\$3	\$28	\$0	\$39	\$19	\$19	\$0	\$0	\$19	-\$20	
Discount Rate	7%												
Benefit/Cost	0.49												

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PT Results:

Program Name: Residential Small Appliance Program												
Year	Savings in					Customer					Cumulative Discounted Net Benefits \$(000)	
	Participants Bills \$(000)	Tax Credits \$(000)	Utility Rebates \$(000)	Other Benefits \$(000)	Total Benefits \$(000)	Equipment Costs \$(000)	Customer O&M Costs \$(000)	Other Costs \$(000)	Total Costs \$(000)	Net Benefits \$(000)		
2025		\$2	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$1	\$1
2026		\$2	\$0	\$0	\$0	\$2	\$1	\$0	\$0	\$1	\$2	\$2
2027		\$3	\$0	\$0	\$0	\$3	\$1	\$0	\$0	\$1	\$2	\$2
2028		\$3	\$0	\$0	\$0	\$4	\$1	\$0	\$0	\$1	\$3	\$2
2029		\$4	\$0	\$0	\$0	\$4	\$1	\$0	\$0	\$1	\$3	\$2
2030		\$5	\$0	\$0	\$0	\$5	\$1	\$0	\$0	\$1	\$4	\$3
2031		\$5	\$0	\$1	\$0	\$6	\$2	\$0	\$0	\$2	\$4	\$3
2032		\$5	\$0	\$1	\$0	\$6	\$2	\$0	\$0	\$2	\$4	\$3
2033		\$6	\$0	\$1	\$0	\$6	\$2	\$0	\$0	\$2	\$4	\$3
2034		\$6	\$0	\$1	\$0	\$6	\$2	\$0	\$0	\$2	\$5	\$2
Nominal		\$40	\$0	\$4	\$0	\$45	\$12	\$0	\$0	\$12	\$32	\$32
NPV		\$28	\$0	\$3	\$0	\$31	\$9	\$0	\$0	\$9	\$22	\$22
Discount Rate		7%										
Benefit/Cost		3.61										

Assumptions:

PROGRAM: Residential Small Appliance Program		
I. PROGRAM DEMAND SAVINGS AND LINE LOSSES		
(1) CUSTOMER KW REDUCTION AT THE METER	0.04 KW/CUST	
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.04 KW GEN/CUST	
(3) KW LINE LOSS PERCENTAGE	6.9 %	
(4) GENERATION KWH REDUCTION PER CUSTOMER	238 KWH/CUST/YR	
(5) KWH LINE LOSS PERCENTAGE	3 %	
(6) GROUP LINE LOSS MULTIPLIER	1.0	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0 KWH/CUST/YR	
(8) * CUSTOMER KWH REDUCTION AT METER	231 KWH/CUST/YR	
II. ECONOMIC LIFE AND K FACTORS		
(1) STUDY PERIOD FOR CONSERVATION PROGRAM	10 YEARS	
(2) GENERATOR ECONOMIC LIFE	10 YEARS	
(3) T & D ECONOMIC LIFE	10 YEARS	
(4) K FACTOR FOR GENERATION	0	
(5) K FACTOR FOR T & D	0	
(6) * SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	
III. UTILITY AND CUSTOMER COSTS		
(1) ** UTILITY NONRECURRING COST PER CUSTOMER	69 \$/CUST	
(2) ** UTILITY RECURRING COST PER CUSTOMER	0.0 \$/CUST/YR	
(3) UTILITY COST ESCALATION RATE	2.3 %	
(4) CUSTOMER EQUIPMENT COST	78 \$/CUST	
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3 %	
(6) CUSTOMER O & M COST	0.0 \$/CUST/YR	
(7) CUSTOMER O & M ESCALATION RATE	2.3 %	
(8) * CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST	
(9) * CUSTOMER TAX CREDIT ESCALATION RATE	2.3 %	
(10) * INCREASED SUPPLY COSTS	0.0 \$/CUST/YR	
(11) * SUPPLY COSTS ESCALATION RATE	2.3 %	
(12) * UTILITY DISCOUNT RATE	7.2 %	
(13) * UTILITY AFUDC RATE	0.0 %	
(14) * UTILITY NON RECURRING REBATE/INCENTIVE	33 \$/CUST	
(15) * UTILITY RECURRING REBATE/INCENTIVE	0.0 \$/CUST/YR	
(16) * UTILITY REBATE/INCENTIVE ESCAL. RATE	0.0 %	
IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS		
(1) BASE YEAR	2025	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2015	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2015	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	0 \$/KW	
(5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW	
(6) BASE YEAR DISTRIBUTION COST	0 \$/KW	
(7) GEN, TRAN, & DIST COST ESCALATION RATE	0 %	
(8) GENERATOR FIXED O & M COST	0 \$/KW/YR	
(9) GENERATOR FIXED O&M ESCALATION RATE	0 %	
(10) TRANSMISSION FIXED O & M COST	0.89 \$/KW/YR	
(11) DISTRIBUTION FIXED O & M COST	22.01 \$/KW/YR	
(12) T&D FIXED O&M ESCALATION RATE	2.3 %	
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0 CENTS/KWH	
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	0 %	
(15) GENERATOR CAPACITY FACTOR	48.8 %	
(16) AVOIDED GENERATING UNIT FUEL COST	5.446 CENTS/KWH	
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	0.1 %	
(18) * AVOIDED PURCHASE CAPACITY COST PER KW	172.18 \$/KW/YR	
(19) * CAPACITY COST ESCALATION RATE	2.7 %	
V. NON-FUEL ENERGY AND DEMAND CHARGES		
(1) NON-FUEL COST IN CUSTOMER BILL	2.37 CENTS/KWH	
(2) NON-FUEL ESCALATION RATE	1.2 %	
(3) CUSTOMER DEMAND CHARGE PER KW	0.0 \$/KW/MO	
(4) DEMAND CHARGE ESCALATION RATE	0.0 %	
(5) * DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	
* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK		
** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).		

Low-Income Program: Efficiency for All

2.4.1 Program Description

The Efficiency for All Program is an energy conservation initiative aimed at enhancing energy efficiency in low-income households and communities. Participants begin by completing online energy surveys and monitoring their monthly energy consumption. Upon reaching specific milestones, they receive tiered incentives such as weatherization kits, smart power strips, and programmable thermostats. The program emphasizes community-wide engagement and collaborates with vendors to facilitate the delivery and installation of energy-saving measures. Its primary objective is to alleviate participants' energy burdens while fostering sustainable conservation habits. This approach promotes inclusivity, aligns with regulatory goals, and provides measurable benefits to all stakeholders.

2.4.2 Participation Standards

In its first year (2025), the Efficiency for All Program will operate on a community-by-community basis to ensure targeted and effective implementation. Participation will be limited to low-income housing developments, multifamily buildings, and similar residential complexes, with administrative approval required to align with program goals. This approach prioritizes communities with the greatest need and readiness to participate.

Communities must submit an application for approval, demonstrating energy cost burdens, resident engagement resources, and commitment to the program. Eligible residents within these communities must meet income thresholds consistent with federal or state low-income assistance criteria. Participants will also need to attend an energy conservation workshop and agree to share energy usage data to evaluate program success and refine strategies.

The program will launch with limited availability in 2025 as a pilot initiative, focusing on select communities. Insights from this initial phase will guide improvements and expansion in 2026 to include additional eligible communities and housing developments, ensuring a scalable and sustainable impact.

2.4.3 Rebates and Incentives

The Efficiency for All Program provides low-income participants with energy-saving incentives by partnering with contractors and vendors to handle installation. Unlike the self-installation model of the Efficiency 1st Program, this initiative ensures qualifying participants receive professional installation of weatherization kits and smart energy devices at no cost.

Through these partnerships, FPUC removes barriers to participation, ensuring equitable access to energy efficiency upgrades while simplifying the process for residents. This approach allows participants to immediately benefit from reduced energy costs and improved home comfort, maximizing the program's impact on energy conservation and affordability.

2.4.4 Benefits and Costs

Based on a recent statewide technical potential study conducted over the past two years in preparation for the current goals docket and the 2025 Demand Side Management (DSM) plan, Florida Public Utilities Company (FPUC) projects that the program will achieve a demand reduction of 0.22 kW per customer and an annual energy savings of 723 kWh per customer. The nonrecurring cost to FPUC is estimated at \$320 per participant.

2.4.5 Monitoring and Evaluation

To assess factors influencing program participation, we will conduct interviews with participants, non-participants, and dealers. Depending on participation levels, we may also survey customers who have upgraded their systems to evaluate satisfaction with the improvements. Program reporting will comply with Rule 25-17.0021(5) of the Florida Administrative Code. Additionally, program expenses will be detailed in the Energy Conservation Cost Recovery (ECCR) True-Up and Projection filings.

2.4.6 Cost-Effectiveness

The following tables provide a comprehensive overview of the program's key metrics, encompassing per-unit avoided energy assumptions, participation requirements, and cost-effectiveness results along with their underlying assumptions. These elements are essential for evaluating the program's overall impact and feasibility.

Projected participation estimates were developed based on estimated market adoption rates that were, in turn, based on incentive amounts for the Program measures and the Bass Diffusion Model, which is a mathematical description of how new product adoption and penetration occurs over time given specified economic input values. Adoption curve input parameters were developed for each measure based on specific criteria, including measure maturity in the market, overall measure cost to and simple payback for the customer, and whether the measure was currently offered through FPUC's DSM programs. Customer eligibility was based on FPUC's forecasted customer counts and the estimated population of customers eligible for measures included in the program. Per-participant kW and kWh reductions were based on estimated savings per installed measure consistent with the technical potential study developed for the 2024 FEECA goalsetting

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proceedings (Docket No. 20240015-EG), and total kW and kWh savings were calculated using Resource Innovations’ Technical Economic and Achievable Potential (TEA-POT) Model by applying the annual participation values estimated using the adoption curves to the per-participant savings for each measure in the program.

At the Meter:

Program Name:		Res Low Income					
Calendar Year	Per Customer	Per Customer	Per Customer	Total Annual	Total Annual	Total Annual	
	kWh Reduction	Winter kW Reduction	Summer kW Reduction	kWh Reduction	Winter kW Reduction	Summer kW Reduction	
2025	702	0.20	0.08	70,217	20	8	
2026	702	0.20	0.08	70,217	20	8	
2027	702	0.20	0.08	70,217	20	8	
2028	702	0.20	0.08	70,217	20	8	
2029	702	0.20	0.08	70,217	20	8	
2030	702	0.20	0.08	70,217	20	8	
2031	702	0.20	0.08	70,217	20	8	
2032	702	0.20	0.08	70,217	20	8	
2033	702	0.20	0.08	70,217	20	8	
2034	702	0.20	0.08	70,217	20	8	

At the Generator:

Program Name:		Res Low Income					
Calendar Year	Per Customer	Per Customer	Per Customer	Total Annual	Total Annual	Total Annual	
	kWh Reduction	Winter kW Reduction	Summer kW Reduction	kWh Reduction	Winter kW Reduction	Summer kW Reduction	
2025	723	0.22	0.09	72,324	22	9	
2026	723	0.22	0.09	72,324	22	9	
2027	723	0.22	0.09	72,324	22	9	
2028	723	0.22	0.09	72,324	22	9	
2029	723	0.22	0.09	72,324	22	9	
2030	723	0.22	0.09	72,324	22	9	
2031	723	0.22	0.09	72,324	22	9	
2032	723	0.22	0.09	72,324	22	9	
2033	723	0.22	0.09	72,324	22	9	
2034	723	0.22	0.09	72,324	22	9	

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Participation:

Program Name: Residential Low Income Program		Res Low Income					
Calendar Year	Total Number of Customer	Total Number of Eligible Customers	Projected Annual Average Number of Program Participants	Projected Cumulative Number of Program Participants	Projected Cumulative Penetration Level %		
2025	25,996	3,302	100	100	3.03%		
2026	26,089	3,314	100	200	6.04%		
2027	26,182	3,326	100	300	9.02%		
2028	26,275	3,337	100	400	11.99%		
2029	26,369	3,349	100	500	14.93%		
2030	26,463	3,361	100	600	17.85%		
2031	26,557	3,373	100	700	20.75%		
2032	26,652	3,385	100	800	23.63%		
2033	26,747	3,397	100	900	26.49%		
2034	26,843	3,410	100	1,000	29.33%		

TRC Test Results:

Program Name: Residential Low Income Program		Res Low Income										
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Participant Program Costs \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit Benefits \$(000)	Avoided T&D Benefits \$(000)	Program Fuel Savings \$(000)	Tax Credit Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)
2025	\$0	\$32	\$6	\$0	\$38	\$0	\$0	\$37	\$0	\$37	-\$2	-\$2
2026	\$0	\$32	\$6	\$0	\$38	\$0	\$0	\$37	\$0	\$37	-\$2	-\$2
2027	\$0	\$32	\$6	\$0	\$38	\$0	\$0	\$37	\$0	\$37	-\$2	-\$2
2028	\$0	\$32	\$6	\$0	\$38	\$0	\$0	\$37	\$0	\$37	-\$2	-\$1
2029	\$0	\$32	\$6	\$0	\$38	\$0	\$0	\$37	\$0	\$37	-\$2	-\$1
2030	\$0	\$32	\$6	\$0	\$38	\$0	\$0	\$37	\$0	\$37	-\$2	-\$1
2031	\$0	\$32	\$6	\$0	\$38	\$0	\$0	\$37	\$0	\$37	-\$2	-\$1
2032	\$0	\$32	\$6	\$0	\$38	\$0	\$0	\$37	\$0	\$37	-\$2	-\$1
2033	\$0	\$32	\$6	\$0	\$38	\$0	\$0	\$37	\$0	\$37	-\$2	-\$1
2034	\$0	\$32	\$6	\$0	\$38	\$0	\$0	\$37	\$0	\$37	-\$2	-\$1
Nominal	\$0	\$320	\$62	\$0	\$383	\$0	\$0	\$365	\$0	\$365	-\$18	
NPV	\$0	\$239	\$47	\$0	\$286	\$0	\$0	\$272	\$0	\$272	(\$13)	
Discount Rate	7%											
Benefit/Cost	0.95											

RIM Test Results:

Program Name: Residential Low Income Program		Res Low Income										
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Revenue Incentives \$(000)	Other Losses \$(000)	Total Costs \$(000)	Avoided Gen Unit & Fuel Benefits \$(000)	Avoided T&D Benefits \$(000)	Revenue Gains \$(000)	Other Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)
2025	\$0	\$32	\$6	\$63	\$0	\$101	\$37	\$0	\$0	\$37	-\$64	-\$64
2026	\$0	\$32	\$6	\$63	\$0	\$101	\$37	\$0	\$0	\$37	-\$64	-\$60
2027	\$0	\$32	\$6	\$63	\$0	\$101	\$37	\$0	\$0	\$37	-\$64	-\$56
2028	\$0	\$32	\$6	\$63	\$0	\$101	\$37	\$0	\$0	\$37	-\$64	-\$52
2029	\$0	\$32	\$6	\$63	\$0	\$101	\$37	\$0	\$0	\$37	-\$64	-\$49
2030	\$0	\$32	\$6	\$63	\$0	\$101	\$37	\$0	\$0	\$37	-\$64	-\$45
2031	\$0	\$32	\$6	\$63	\$0	\$101	\$37	\$0	\$0	\$37	-\$64	-\$42
2032	\$0	\$32	\$6	\$63	\$0	\$101	\$37	\$0	\$0	\$37	-\$64	-\$40
2033	\$0	\$32	\$6	\$63	\$0	\$101	\$37	\$0	\$0	\$37	-\$64	-\$37
2034	\$0	\$32	\$6	\$63	\$0	\$101	\$37	\$0	\$0	\$37	-\$64	-\$34
Nominal	\$0	\$320	\$62	\$626	\$0	\$1,009	\$365	\$0	\$0	\$365	-\$644	
NPV	\$0	\$239	\$47	\$467	\$0	\$753	\$272	\$0	\$0	\$272	-\$480	
Discount Rate	7%											
Benefit/Cost	0.36											

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Participant Test Results:

Program Name: Residential Low Income Program													Net Benefits	
Year	Savings in					Customer					Total Costs	Net Benefits	Cumulative Discounted Net Benefits	
	Participants	Tax Credits	Utility Rebates	Other Benefits	Total Benefits	Equipment Costs	Customer O&M Costs	Other Costs	Total Costs					
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	
2025	\$63	\$0	\$6	\$0	\$69	\$6	\$0	\$0	\$6	\$63	\$63	\$63		
2026	\$63	\$0	\$6	\$0	\$69	\$6	\$0	\$0	\$6	\$63	\$63	\$58		
2027	\$63	\$0	\$6	\$0	\$69	\$6	\$0	\$0	\$6	\$63	\$63	\$54		
2028	\$63	\$0	\$6	\$0	\$69	\$6	\$0	\$0	\$6	\$63	\$63	\$51		
2029	\$63	\$0	\$6	\$0	\$69	\$6	\$0	\$0	\$6	\$63	\$63	\$47		
2030	\$63	\$0	\$6	\$0	\$69	\$6	\$0	\$0	\$6	\$63	\$63	\$44		
2031	\$63	\$0	\$6	\$0	\$69	\$6	\$0	\$0	\$6	\$63	\$63	\$41		
2032	\$63	\$0	\$6	\$0	\$69	\$6	\$0	\$0	\$6	\$63	\$63	\$39		
2033	\$63	\$0	\$6	\$0	\$69	\$6	\$0	\$0	\$6	\$63	\$63	\$36		
2034	\$63	\$0	\$6	\$0	\$69	\$6	\$0	\$0	\$6	\$63	\$63	\$34		
Nominal	\$626	\$0	\$62	\$0	\$689	\$62	\$0	\$0	\$62	\$626	\$626			
NPV	\$467	\$0	\$47	\$0	\$514	\$47	\$0	\$0	\$47	\$467	\$467			
Discount Rate	7%													
Benefit/Cost	11.02													

Assumptions:

PROGRAM: Residential Low Income Program	
I. PROGRAM DEMAND SAVINGS AND LINE LOSSES	IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS
(1) CUSTOMER KW REDUCTION AT THE METER	0.20 KW/CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.22 KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.9 %
(4) GENERATION KWH REDUCTION PER CUSTOMER	723 KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	3 %
(6) GROUP LINE LOSS MULTIPLIER	1.0
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0 KWH/CUST/YR
(8) * CUSTOMER KWH REDUCTION AT METER	702 KWH/CUST/YR
II. ECONOMIC LIFE AND K FACTORS	
(1) STUDY PERIOD FOR CONSERVATION PROGRAM	10 YEARS
(2) GENERATOR ECONOMIC LIFE	10 YEARS
(3) T & D ECONOMIC LIFE	10 YEARS
(4) K FACTOR FOR GENERATION	0
(5) K FACTOR FOR T & D	0
(6) * SWITCH REV REQ(0) OR VAL OF DEF (1)	1
III. UTILITY AND CUSTOMER COSTS	
(1)** UTILITY NONRECURRING COST PER CUSTOMER	320 \$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.0 \$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3 %
(4) CUSTOMER EQUIPMENT COST	62 \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3 %
(6) CUSTOMER O & M COST	0.0 \$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3 %
(8) * CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST
(9) * CUSTOMER TAX CREDIT ESCALATION RATE	2.3 %
(10) * INCREASED SUPPLY COSTS	0.0 \$/CUST/YR
(11) * SUPPLY COSTS ESCALATION RATE	2.3 %
(12) * UTILITY DISCOUNT RATE	7.2 %
(13) * UTILITY AFUDCRATE	0.0 %
(14) * UTILITY NON RECURRING REBATE/INCENTIVE	62 \$/CUST
(15) * UTILITY RECURRING REBATE/INCENTIVE	0.0 \$/CUST/YR
(16) * UTILITY REBATE/INCENTIVE ESCAL RATE	0.0 %
	V. NON-FUEL ENERGY AND DEMAND CHARGES
	(1) NON-FUEL COST IN CUSTOMER BILL
	(2) NON-FUEL ESCALATION RATE
	(3) CUSTOMER DEMAND CHARGE PER KW
	(4) DEMAND CHARGE ESCALATION RATE
	(5) * DIVERSITY and ANNUAL DEMAND ADJUSTMENT
	FACTOR FOR CUSTOMER BILL
	2025
	2015
	2015
	0 \$/KW
	0 \$/KW
	0 \$/KW
	0 %
	0 \$/KW/YR
	0 %
	0.89 \$/KW/YR
	22.01 \$/KW/YR
	2.3 %
	0 CENTS/KWH
	0 %
	48.8 %
	5.446 CENTS/KWH
	0.1 %
	172.18 \$/KW/YR
	2.7 %
	2.37 CENTS/KWH
	1.2 %
	0.0 \$/KW/MO
	0.0 %
	0.0
	1.0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK
 ** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

3.0 Commercial Program Overview

Sections 3.1 through 3.3 detail the legacy commercial programs for which Florida Public Utilities Company (FPUC) seeks continuation. Modifications to elements of the Commercial Consultation Program are outlined in Section 4.6.1. Summary tables in Sections 3.2.6, 3.3.6, and 3.4.6 present historical program performance through 2015, illustrating each program's outcomes relative to projections and goals

3.1 Commercial Heating & Cooling Efficiency Upgrade Program

3.1.1 Program Description

Florida Public Utilities Company (FPUC) seeks to continue its Commercial Heating & Cooling Efficiency Upgrade Program, which provides rebates to small commercial customers. This initiative aims to curb peak demand and energy consumption growth within FPUC's commercial sector by promoting the adoption of high-efficiency heat pumps and air conditioning systems.

3.1.2 Participation Standards

To qualify for Florida Public Utilities Company's (FPUC) Commercial Heating and Cooling Efficiency Upgrade Program, applicants must be non-residential customers within FPUC's electric service area. Participants are required to submit a completed rebate application, along with proof of purchase and installation, within one year of the installation date. Please note that specific rebate amounts and efficiency criteria are subject to change; for the most current information, refer to FPUC's official rebate guidelines.

3.1.3 Rebates & Incentives

Florida Public Utilities Company (FPUC) offers rebates to non-residential customers who upgrade to high-efficiency heating and cooling systems to promote energy efficiency. The type and capacity of the installed equipment determine rebate amounts:

Rebate Criteria:

High-Efficiency Direct Expansion (DX) Systems:

- **Capacity Less Than 5.4 Tons:** \$100 customer rebate; \$25 dealer incentive.
- **Capacity Between 5.4 and 11.25 Tons:** \$100 customer rebate; \$25 dealer incentive.

High-Efficiency Packaged Terminal Heat Pumps (PTHP):

- \$100 customer rebate; \$25 dealer incentive.

3.1.4 Benefits and Costs

Section 3.1.6 outlines the projected demand and energy savings for the program. Florida Public Utilities Company (FPUC) anticipates a nonrecurring cost of \$233 per participant.

3.1.5 Monitoring and Evaluation

To assess factors influencing program participation and non-participation, we will conduct interviews with participants, non-participants, and dealers. Depending on participation levels, we may also survey customers who have upgraded their systems to evaluate satisfaction with the improvements. Program reporting will comply with Rule 25-17.0021(5) of the Florida Administrative Code. Additionally, program expenses will be detailed in the Energy Conservation Cost Recovery (ECCR) True-Up and Projection filings.

3.1.6 Cost-Effectiveness

The following tables offer a detailed summary of the program's key metrics, including per-unit avoided energy assumptions, participation requirements, and cost-effectiveness results with their underlying assumptions. These components are crucial for assessing the program's overall impact and feasibility.

Projected participation estimates were developed based on estimated market adoption rates that were, in turn, based on incentive amounts for the Program measures and the Bass Diffusion Model, which is a mathematical description of how new product adoption and penetration occurs over time given specified economic input values. Adoption curve input parameters were developed for each measure based on specific criteria, including measure maturity in the market, overall measure cost to and simple payback for the customer, and whether the measure was currently offered through

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FPUC’s DSM programs. Customer eligibility was based on FPUC’s forecasted customer counts and the population of customers eligible for measures included in the program. Per-participant kW and kWh reductions were based on estimated savings per installed measure consistent with the technical potential study developed for the 2024 FEECA goalsetting proceedings (Docket No. 20240015-EG), and total kW and kWh savings were calculated using Resource Innovations’ Technical Economic and Achievable Potential (TEA-POT) Model by applying the annual participation values estimated using the adoption curves to the per-participant savings for each measure in the program.

At the Meter:

Program Name: Commercial Heating and Cooling Upgrade						
Calendar Year	Per Customer kWh Reduction	Per Customer	Per Customer	Total Annual kWh Reduction	Total Annual	Total Annual
		Winter kW Reduction	Summer kW Reduction		Winter kW Reduction	Summer kW Reduction
2025	1,943	0.61	0.55	25,253	8	7
2026	2,222	0.72	0.62	28,885	9	8
2027	2,166	0.72	0.60	32,486	11	9
2028	2,252	0.78	0.62	36,032	12	10
2029	2,320	0.82	0.63	39,434	14	11
2030	2,361	0.86	0.63	42,495	15	11
2031	2,496	0.91	0.67	44,932	16	12
2032	2,581	0.93	0.69	46,464	17	12
2033	2,473	0.85	0.68	46,984	16	13
2034	2,333	0.76	0.65	46,663	15	13

At the Generator:

Program Name: Commercial Heating and Cooling Upgrade						
Calendar Year	Per Customer kWh Reduction	Per Customer	Per Customer	Total Annual kWh Reduction	Total Annual	Total Annual
		Winter kW Reduction	Summer kW Reduction		Winter kW Reduction	Summer kW Reduction
2025	2,001	0.67	0.60	26,010	9	8
2026	2,289	0.78	0.68	29,751	10	9
2027	2,231	0.79	0.65	33,460	12	10
2028	2,320	0.85	0.67	37,113	14	11
2029	2,389	0.90	0.68	40,617	15	12
2030	2,432	0.93	0.69	43,770	17	12
2031	2,571	0.99	0.73	46,280	18	13
2032	2,659	1.01	0.76	47,857	18	14
2033	2,547	0.93	0.74	48,394	18	14
2034	2,403	0.82	0.71	48,063	16	14

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Participation:

Program Name: Commercial Heating and Cooling Upgrade <i>Com Heating & Cooling Upgrade</i>						
Calendar Year	Total Number of Customer	Total Number of Eligible Customers	Projected Annual Average Number of Program Participants	Projected Cumulative Number of Program Participants	Projected Cumulative Penetration Level %	
2025	4,446	4,446	13	13	0.29%	
2026	4,458	4,458	13	26	0.58%	
2027	4,470	4,470	15	41	0.92%	
2028	4,483	4,483	16	57	1.27%	
2029	4,495	4,495	17	74	1.65%	
2030	4,508	4,508	18	92	2.04%	
2031	4,520	4,520	18	110	2.43%	
2032	4,533	4,533	18	128	2.82%	
2033	4,546	4,546	19	147	3.23%	
2034	4,558	4,558	20	167	3.66%	

TRC Test Results:

Program Name: Commercial Heating and Cooling Upgrade <i>Com Heating & Cooling Upgrade</i>													
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Participant Program Costs \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit Benefits \$(000)	Avoided T&D Benefits \$(000)	Program Fuel Savings \$(000)	Tax Credit Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)	
2025	\$0	\$3	\$14	\$0	\$17	\$0	\$0	\$0	\$19	\$0	\$19	\$2	
2026	\$0	\$3	\$16	\$0	\$19	\$0	\$0	\$0	\$22	\$0	\$22	\$3	
2027	\$0	\$4	\$18	\$0	\$21	\$0	\$0	\$0	\$25	\$0	\$25	\$3	
2028	\$0	\$4	\$19	\$0	\$24	\$0	\$0	\$0	\$27	\$0	\$27	\$4	
2029	\$0	\$5	\$21	\$0	\$25	\$0	\$0	\$0	\$30	\$0	\$30	\$4	
2030	\$0	\$5	\$22	\$0	\$27	\$0	\$0	\$0	\$32	\$0	\$32	\$5	
2031	\$0	\$5	\$23	\$0	\$29	\$0	\$0	\$0	\$34	\$0	\$34	\$5	
2032	\$0	\$6	\$24	\$0	\$30	\$0	\$0	\$0	\$35	\$0	\$35	\$5	
2033	\$0	\$6	\$25	\$0	\$30	\$0	\$0	\$0	\$35	\$0	\$35	\$5	
2034	\$0	\$6	\$25	\$0	\$31	\$0	\$0	\$0	\$35	\$0	\$35	\$5	
Nominal	\$0	\$47	\$207	\$0	\$253	\$0	\$0	\$295	\$0	\$295	\$41		
NPV	\$0	\$34	\$149	\$0	\$182	\$0	\$0	\$212	\$0	\$212	\$29		
Discount Rate	7%												
Benefit/Cost	1.16												

RIM Test Results:

Program Name: Commercial Heating and Cooling Upgrade <i>Com Heating & Cooling Upgrade</i>														
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Participant Program Incentives \$(000)	Revenue Losses \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit & Fuel Benefits \$(000)	Avoided T&D Benefits \$(000)	Revenue Gains \$(000)	Other Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)	
2025	\$0	\$3	\$2	\$31	\$0	\$36	\$19	\$0	\$0	\$0	\$19	-\$17	-\$17	
2026	\$0	\$3	\$2	\$35	\$0	\$41	\$22	\$0	\$0	\$0	\$22	-\$19	-\$18	
2027	\$0	\$4	\$3	\$39	\$0	\$46	\$25	\$0	\$0	\$0	\$25	-\$21	-\$19	
2028	\$0	\$4	\$3	\$44	\$0	\$51	\$27	\$0	\$0	\$0	\$27	-\$24	-\$19	
2029	\$0	\$5	\$3	\$48	\$0	\$55	\$30	\$0	\$0	\$0	\$30	-\$26	-\$19	
2030	\$0	\$5	\$3	\$51	\$0	\$60	\$32	\$0	\$0	\$0	\$32	-\$28	-\$19	
2031	\$0	\$5	\$3	\$54	\$0	\$63	\$34	\$0	\$0	\$0	\$34	-\$29	-\$19	
2032	\$0	\$6	\$3	\$56	\$0	\$65	\$35	\$0	\$0	\$0	\$35	-\$30	-\$18	
2033	\$0	\$6	\$3	\$57	\$0	\$66	\$35	\$0	\$0	\$0	\$35	-\$30	-\$17	
2034	\$0	\$6	\$4	\$57	\$0	\$66	\$35	\$0	\$0	\$0	\$35	-\$30	-\$16	
Nominal	\$0	\$47	\$30	\$471	\$0	\$548	\$295	\$0	\$0	\$0	\$295	-\$253		
NPV	\$0	\$34	\$22	\$339	\$0	\$394	\$212	\$0	\$0	\$0	\$212	-\$182		
Discount Rate	7%													
Benefit/Cost	0.54													

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Participants Test Results:

Program Name: Commercial Heating and Cooling Upgrade													
Year	Savings in					Customer					Cumulative Discounted Net Benefits \$(000)		
	Participants Bills \$(000)	Tax Credits \$(000)	Utility Rebates \$(000)	Other Benefits \$(000)	Total Benefits \$(000)	Equipment Costs \$(000)	Customer O&M Costs \$(000)	Other Costs \$(000)	Total Costs \$(000)	Net Benefits \$(000)			
2025	\$31	\$0	\$2	\$0	\$33	\$14	\$0	\$0	\$14	\$19	\$19		
2026	\$35	\$0	\$2	\$0	\$37	\$16	\$0	\$0	\$16	\$22	\$20		
2027	\$39	\$0	\$3	\$0	\$42	\$18	\$0	\$0	\$18	\$25	\$21		
2028	\$44	\$0	\$3	\$0	\$47	\$19	\$0	\$0	\$19	\$27	\$22		
2029	\$48	\$0	\$3	\$0	\$51	\$21	\$0	\$0	\$21	\$30	\$23		
2030	\$51	\$0	\$3	\$0	\$54	\$22	\$0	\$0	\$22	\$32	\$23		
2031	\$54	\$0	\$3	\$0	\$57	\$23	\$0	\$0	\$23	\$34	\$22		
2032	\$56	\$0	\$3	\$0	\$59	\$24	\$0	\$0	\$24	\$35	\$22		
2033	\$57	\$0	\$3	\$0	\$60	\$25	\$0	\$0	\$25	\$35	\$20		
2034	\$57	\$0	\$4	\$0	\$60	\$25	\$0	\$0	\$25	\$35	\$19		
Nominal NPV	\$471	\$0	\$30	\$0	\$501	\$207	\$0	\$0	\$207	\$294	\$294		
Discount Rate	7%												
Benefit/Cost	2.42												

Assumptions:

PROGRAM: Commercial Heating and Cooling Upgrade			
I. PROGRAM DEMAND SAVINGS AND LINE LOSSES			
(1) CUSTOMER KW REDUCTION AT THE METER	0.61 KW /CUST		
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.67 KW GEN/CUST		
(3) KW LINE LOSS PERCENTAGE	8.9 %		
(4) GENERATION KWH REDUCTION PER CUSTOMER	2,001 KWH/CUST/YR		
(5) KWH LINE LOSS PERCENTAGE	3 %		
(6) GROUP LINE LOSS MULTIPLIER	1.0		
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0 KWH/CUST/YR		
(8) * CUSTOMER KWH REDUCTION AT METER	1,943 KWH/CUST/YR		
II. ECONOMIC LIFE AND K FACTORS			
(1) STUDY PERIOD FOR CONSERVATION PROGRAM	10 YEARS		
(2) GENERATOR ECONOMIC LIFE	10 YEARS		
(3) T & D ECONOMIC LIFE	10 YEARS		
(4) K FACTOR FOR GENERATION	0		
(5) K FACTOR FOR T & D	0		
(6) * SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1		
III. UTILITY AND CUSTOMER COSTS			
(1)** UTILITY NONRECURRING COST PER CUSTOMER	233 \$/CUST		
(2)** UTILITY RECURRING COST PER CUSTOMER	0.0 \$/CUST/YR		
(3) UTILITY COST ESCALATION RATE	2.3 %		
(4) CUSTOMER EQUIPMENT COST	1,073 \$/CUST		
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3 %		
(6) CUSTOMER O & M COST	0.0 \$/CUST/YR		
(7) CUSTOMER O & M ESCALATION RATE	2.3 %		
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST		
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3 %		
(10)* INCREASED SUPPLY COSTS	0.0 \$/CUST/YR		
(11)* SUPPLY COSTS ESCALATION RATE	2.3 %		
(12)* UTILITY DISCOUNT RATE	7.2 %		
(13)* UTILITY AFUDC RATE	0.0 %		
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	177 \$/CUST		
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.0 \$/CUST/YR		
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0.0 %		
IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS			
(1) BASE YEAR	2015		
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2015		
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2015		
(4) BASE YEAR AVOIDED GENERATING UNIT COST	0 \$/KW		
(5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW		
(6) BASE YEAR DISTRIBUTION COST	0 \$/KW		
(7) GEN, TRAN, & DIST COST ESCALATION RATE	0 %		
(8) GENERATOR FIXED O & M COST	0 \$/KW/YR		
(9) GENERATOR FIXED O&M ESCALATION RATE	0 %		
(10) TRANSMISSION FIXED O & M COST	0.89 \$/KW/YR		
(11) DISTRIBUTION FIXED O & M COST	22.01 \$/KW/YR		
(12) T&D FIXED O&M ESCALATION RATE	2.3 %		
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0 CENTS/KWH		
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	0 %		
(15) GENERATOR CAPACITY FACTOR	48.8 %		
(16) AVOIDED GENERATING UNIT FUEL COST	5.446 CENTS/KWH		
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	0.1 %		
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	172.18 \$/KW/YR		
(19)* CAPACITY COST ESCALATION RATE	2.7 %		
V. NON-FUELENERGY AND DEMAND CHARGES			
(1) NON-FUEL COST IN CUSTOMER BILL	2.37 CENTS/KWH		
(2) NON-FUEL ESCALATION RATE	1.2 %		
(3) CUSTOMER DEMAND CHARGE PER KW	0.0 \$/KW/MO		
(4) DEMAND CHARGE ESCALATION RATE	0.0 %		
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0		

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK
 ** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

3.2 Commercial Chiller Upgrade Program

3.2.1 Program Description

Florida Public Utilities Company (FPUC) seeks to continue its Commercial Chiller Upgrade Program with updated costs and savings projections. This program aims to mitigate the growth of peak demand

and energy consumption across FPUC's commercial and industrial sectors. To achieve this, the program requires customers to replace existing chillers with more efficient systems.

3.2.2 Participation Standards

The program applies to water-cooled centrifugal chillers, water-cooled scroll or screw chillers, and air-cooled electric chillers. Minimum efficiency qualifications for each chiller type, based on size, are detailed in the participation standards section. Interested customers must submit project proposals to FPUC, after which an on-site inspection will be scheduled prior to installation. Following project completion, an FPUC representative will conduct a final inspection. Adhering to these guidelines qualifies the customer for the rebate.

3.2.3 Rebates & Incentives

Florida Public Utilities Company (FPUC) offers two fixed-cost rebate tiers to incentivize non-residential customers to upgrade to high-efficiency water-cooled chillers, promoting significant energy savings:

Rebate Tiers:

1. **Tier 1:** For annual energy savings up to 15,000 kWh, customers receive a rebate of \$0.22 per kWh saved.
2. **Tier 2:** For annual energy savings exceeding 15,000 kWh, the rebate is \$0.17 per kWh saved.

Application Examples:

- A 200-ton centrifugal compressor chiller achieving 15,741 kWh in annual savings qualifies for Tier 2, resulting in a rebate of approximately \$2,676.
- A 500-ton centrifugal compressor chiller with 34,220 kWh in annual savings also falls under Tier 2, leading to a rebate of about \$5,817.
- A 175-ton rotary or screw compressor chiller saving 11,977 kWh annually is eligible for Tier 1, amounting to a rebate of approximately \$2,635.

These rebate tiers are designed to encourage the adoption of energy-efficient chillers, thereby reducing operational costs and promoting environmental sustainability.

Note: Rebate amounts are subject to change. For the most current information, please refer to FPUC's official rebate guidelines.

3.2.4 Benefits and Costs

Avoided Energy estimates for benefits are **4,051 kWh and 1.34 kW** and were derived from the Technical, Economic, and Achievable Study conducted by Resource Innovations on behalf of FPUC, supporting the proposed 2024 DSM goals process. The estimated FPUC 2024 nonrecurring cost per customer for the Commercial Chiller Upgrade is **\$2,949**.

3.2.5 Monitoring and Evaluation

To evaluate factors influencing program participation and non-participation, we will conduct interviews with participants, non-participants, and dealers. Depending on participation levels, we may also survey customers who have upgraded their systems to assess satisfaction with the improvements. Program reporting will adhere to Rule 25-17.0021(5) of the Florida Administrative Code. Additionally, program expenses will be detailed in the Energy Conservation Cost Recovery (ECCR) True-Up and Projection filings.

3.2.6 Cost-Effectiveness

The subsequent tables provide a comprehensive overview of the program's key metrics, including per-unit avoided energy assumptions, participation requirements, and cost-effectiveness results with their underlying assumptions. These elements are vital for evaluating the program's overall impact and feasibility.

Projected participation estimates were developed based on estimated market adoption rates that were, in turn, based on incentive amounts for the Program measures and the Bass Diffusion Model, which is a mathematical description of how new product adoption and penetration occurs over time given specified economic input values. Adoption curve input parameters were developed for each measure based on specific criteria, including measure maturity in the market, overall measure cost to and simple payback for the customer, and whether the measure was currently offered through FPUC's DSM programs. Customer eligibility was based on FPUC's forecasted customer counts and the population of customers eligible for measures included in the program. Per-participant kW and kWh reductions were based on estimated savings per installed measure consistent with the technical potential study developed for the 2024 FEECA goalsetting proceedings (Docket No. 20240015-EG), and total kW and kWh savings were calculated using Resource

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Innovations' Technical Economic and Achievable Potential (TEA-POT) Model by applying the annual participation values estimated using the adoption curves to the per-participant savings for each measure in the program.

At the Meter:

Program Name:		Commercial Chiller Upgrade					
Calendar Year	Per Customer	Per Customer	Per Customer	Total Annual	Total Annual	Total Annual	
	kWh Reduction	Winter kW Reduction	Summer kW Reduction	kWh Reduction	Winter kW Reduction	Summer kW Reduction	
2025	3,933	0.00	1.23	3,933	0	1	
2026	4,416	0.00	1.38	4,416	0	1	
2027	4,859	0.00	1.52	4,859	0	2	
2028	5,262	0.00	1.65	5,262	0	2	
2029	5,628	0.00	1.76	5,628	0	2	
2030	5,961	0.00	1.87	5,961	0	2	
2031	6,261	0.00	1.96	6,261	0	2	
2032	6,533	0.00	2.05	6,533	0	2	
2033	6,780	0.00	2.12	6,780	0	2	
2034	7,004	0.00	2.19	7,004	0	2	

At the Generator:

Program Name:		Commercial Chiller Upgrade					
Calendar Year	Per Customer	Per Customer	Per Customer	Total Annual	Total Annual	Total Annual	
	kWh Reduction	Winter kW Reduction	Summer kW Reduction	kWh Reduction	Winter kW Reduction	Summer kW Reduction	
2025	4,051	0.00	1.34	4,051	0	1	
2026	4,549	0.00	1.51	4,549	0	2	
2027	5,005	0.00	1.66	5,005	0	2	
2028	5,420	0.00	1.79	5,420	0	2	
2029	5,797	0.00	1.92	5,797	0	2	
2030	6,139	0.00	2.03	6,139	0	2	
2031	6,449	0.00	2.14	6,449	0	2	
2032	6,729	0.00	2.23	6,729	0	2	
2033	6,983	0.00	2.31	6,983	0	2	
2034	7,214	0.00	2.39	7,214	0	2	

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Participation:

Program Name: Commercial Chiller Upgrade		Com Chiller Upgrade					
Calendar Year	Total Number of Customer	Total Number of Eligible Customers	Projected Annual Average Number of Program Participants	Projected Cumulative Number of Program Participants	Projected Cumulative Penetration Level %		
2025	4,446	4,446		1	1	0.02%	
2026	4,458	4,458		1	2	0.04%	
2027	4,470	4,470		1	3	0.07%	
2028	4,483	4,483		1	4	0.09%	
2029	4,495	4,495		1	5	0.11%	
2030	4,508	4,508		1	6	0.13%	
2031	4,520	4,520		1	7	0.15%	
2032	4,533	4,533		1	8	0.18%	
2033	4,546	4,546		1	9	0.20%	
2034	4,558	4,558		1	10	0.22%	

TRC Test Results:

Program Name: Commercial Chiller Upgrade		Com Chiller Upgrade										
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Participant Program Costs \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit Benefits \$(000)	Avoided T&D Benefits \$(000)	Program Fuel Savings \$(000)	Tax Credit Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)
2025	\$0	\$3	\$3	\$0	\$6	\$0	\$0	\$4	\$0	\$4	-\$2	-\$2
2026	\$0	\$3	\$3	\$0	\$7	\$0	\$0	\$5	\$0	\$5	-\$2	-\$2
2027	\$0	\$4	\$4	\$0	\$7	\$0	\$0	\$5	\$0	\$5	-\$2	-\$2
2028	\$0	\$4	\$4	\$0	\$8	\$0	\$0	\$6	\$0	\$6	-\$2	-\$2
2029	\$0	\$4	\$4	\$0	\$8	\$0	\$0	\$6	\$0	\$6	-\$2	-\$2
2030	\$0	\$4	\$4	\$0	\$9	\$0	\$0	\$6	\$0	\$6	-\$2	-\$2
2031	\$0	\$5	\$5	\$0	\$9	\$0	\$0	\$7	\$0	\$7	-\$2	-\$2
2032	\$0	\$5	\$5	\$0	\$10	\$0	\$0	\$7	\$0	\$7	-\$3	-\$2
2033	\$0	\$5	\$5	\$0	\$10	\$0	\$0	\$7	\$0	\$7	-\$3	-\$2
2034	\$0	\$5	\$5	\$0	\$10	\$0	\$0	\$8	\$0	\$8	-\$3	-\$1
Nominal	\$0	\$42	\$41	\$0	\$83	\$0	\$0	\$61	\$0	\$61	-\$22	
NPV	\$0	\$31	\$30	\$0	\$60	\$0	\$0	\$44	\$0	\$44	(\$16)	
Discount Rate	7%											
Benefit/Cost	0.74											

RIM Test Results:

Program Name: Commercial Chiller Upgrade		Com Chiller Upgrade												
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Incentives \$(000)	Revenue Losses \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit & Fuel Benefits \$(000)	Avoided T&D Benefits \$(000)	Revenue Gains \$(000)	Other Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)	
2025	\$0	\$3	\$3	\$7	\$0	\$13	\$4	\$0	\$0	\$0	\$4	-\$9	-\$9	
2026	\$0	\$3	\$3	\$7	\$0	\$14	\$5	\$0	\$0	\$0	\$5	-\$9	-\$9	
2027	\$0	\$4	\$3	\$8	\$0	\$15	\$5	\$0	\$0	\$0	\$5	-\$10	-\$9	
2028	\$0	\$4	\$3	\$9	\$0	\$16	\$6	\$0	\$0	\$0	\$6	-\$10	-\$8	
2029	\$0	\$4	\$3	\$9	\$0	\$17	\$6	\$0	\$0	\$0	\$6	-\$11	-\$8	
2030	\$0	\$4	\$3	\$10	\$0	\$18	\$6	\$0	\$0	\$0	\$6	-\$11	-\$8	
2031	\$0	\$5	\$3	\$10	\$0	\$19	\$7	\$0	\$0	\$0	\$7	-\$12	-\$8	
2032	\$0	\$5	\$3	\$11	\$0	\$19	\$7	\$0	\$0	\$0	\$7	-\$12	-\$7	
2033	\$0	\$5	\$3	\$11	\$0	\$20	\$7	\$0	\$0	\$0	\$7	-\$12	-\$7	
2034	\$0	\$5	\$3	\$12	\$0	\$20	\$8	\$0	\$0	\$0	\$8	-\$13	-\$7	
Nominal	\$0	\$42	\$34	\$94	\$0	\$171	\$61	\$0	\$0	\$0	\$61	-\$109		
NPV	\$0	\$31	\$25	\$68	\$0	\$124	\$44	\$0	\$0	\$0	\$44	-\$80		
Discount Rate	7%													
Benefit/Cost	0.36													

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Participants Test Results:

Program Name: Commercial Chiller Upgrade											
Year	Savings in				Total Benefits	Customer			Total Costs	Net Benefits	Cumulative Discounted Net Benefits
	Participants Bills	Tax Credits	Utility Rebates	Other Benefits		Equipment Costs	Customer O&M Costs	Other Costs			
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2025	\$7	\$0	\$3	\$0	\$10	\$3	\$0	\$0	\$3	\$7	\$7
2026	\$7	\$0	\$3	\$0	\$11	\$3	\$0	\$0	\$3	\$8	\$7
2027	\$8	\$0	\$3	\$0	\$12	\$4	\$0	\$0	\$4	\$8	\$7
2028	\$9	\$0	\$3	\$0	\$12	\$4	\$0	\$0	\$4	\$8	\$7
2029	\$9	\$0	\$3	\$0	\$13	\$4	\$0	\$0	\$4	\$9	\$7
2030	\$10	\$0	\$3	\$0	\$13	\$4	\$0	\$0	\$4	\$9	\$6
2031	\$10	\$0	\$3	\$0	\$14	\$5	\$0	\$0	\$5	\$9	\$6
2032	\$11	\$0	\$3	\$0	\$14	\$5	\$0	\$0	\$5	\$10	\$6
2033	\$11	\$0	\$3	\$0	\$15	\$5	\$0	\$0	\$5	\$10	\$6
2034	\$12	\$0	\$3	\$0	\$15	\$5	\$0	\$0	\$5	\$10	\$5
Nominal	\$94	\$0	\$34	\$0	\$128	\$41	\$0	\$0	\$41	\$87	
NPV	\$68	\$0	\$25	\$0	\$93	\$30	\$0	\$0	\$30	\$64	
Discount Rate	7%										
Benefit/Cost	3.16										

Assumptions:

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES			
(1) CUSTOMER KW REDUCTION AT THE METER	1.23 KW /CUST		
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.34 KW GEN/CUST		
(3) KW LINE LOSS PERCENTAGE	8.9 %		
(4) GENERATION KWH REDUCTION PER CUSTOMER	4,051 KWH/CUST/YR		
(5) KWH LINE LOSS PERCENTAGE	3 %		
(6) GROUP LINE LOSS MULTIPLIER	1.0		
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0 KWH/CUST/YR		
(8)* CUSTOMER KWH REDUCTION AT METER	3,933 KWH/CUST/YR		
II. ECONOMIC LIFE AND K FACTORS			
(1) STUDY PERIOD FOR CONSERVATION PROGRAM	10 YEARS		
(2) GENERATOR ECONOMIC LIFE	10 YEARS		
(3) T & D ECONOMIC LIFE	10 YEARS		
(4) K FACTOR FOR GENERATION	0		
(5) K FACTOR FOR T & D	0		
(6)* SWITCH/REV REQ(0) OR VAL-OF-DEF (1)	1		
III. UTILITY AND CUSTOMER COSTS			
(1)** UTILITY NONRECURRING COST PER CUSTOMER	2,949 \$/CUST		
(2)** UTILITY RECURRING COST PER CUSTOMER	0.0 \$/CUST/YR		
(3) UTILITY COST ESCALATION RATE	2.3 %		
(4) CUSTOMER EQUIPMENT COST	2,845 \$/CUST		
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3 %		
(6) CUSTOMER O & M COST	0.0 \$/CUST/YR		
(7) CUSTOMER O & M ESCALATION RATE	2.3 %		
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CUST		
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3 %		
(10)* INCREASED SUPPLY COSTS	0.0 \$/CUST/YR		
(11)* SUPPLY COSTS ESCALATION RATE	2.3 %		
(12)* UTILITY DISCOUNT RATE	7.2 %		
(13)* UTILITY AFUDC RATE	0.0 %		
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	3,416 \$/CUST		
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.0 \$/CUST/YR		
(16)* UTILITY REBATE/INCENTIVE ESCAL. RATE	0.0 %		
IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS			
(1) BASE YEAR	2025		
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2015		
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2015		
(4) BASE YEAR AVOIDED GENERATING UNIT COST	0 \$/KW		
(5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW		
(6) BASE YEAR DISTRIBUTION COST	0 \$/KW		
(7) GEN, TRAN, & DIST COST ESCALATION RATE	0 %		
(8) GENERATOR FIXED O & M COST	0 \$/KW/YR		
(9) GENERATOR FIXED O&M ESCALATION RATE	0 %		
(10) TRANSMISSION FIXED O & H COST	0.89 \$/KW/YR		
(11) DISTRIBUTION FIXED O & M COST	22.01 \$/KW/YR		
(12) T&D FIXED O&M ESCALATION RATE	2.3 %		
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0 CENTS/KWH		
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	0 %		
(15) GENERATOR CAPACITY FACTOR	48.8 %		
(16) AVOIDED GENERATING UNIT FUEL COST	5.446 CENTS/KWH		
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	0.1 %		
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	172.18 \$/KW/YR		
(19)* CAPACITY COST ESCALATION RATE	2.7 %		
V. NON-FUEL ENERGY AND DEMAND CHARGES			
(1) NON-FUEL COST IN CUSTOMER BILL	2.37 CENTS/KWH		
(2) NON-FUEL ESCALATION RATE	1.2 %		
(3) CUSTOMER DEMAND CHARGE PER KW	0.0 \$/KW/HO		
(4) DEMAND CHARGE ESCALATION RATE	0.0 %		
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0		

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK
 ** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

3.3 Commercial Exterior & Interior Lighting Program

3.3.1 Program Description

The Commercial Exterior and Interior Lighting Program is a new addition to Florida Public Utilities Company's (FPUC) energy conservation offerings. It aims to encourage non-residential customers to replace outdated, inefficient

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lighting systems with modern, energy-efficient alternatives. The program provides incentives based on projected annual energy savings and accommodates a wide range of end-use applications.

3.3.2 Participation Standards

To participate in Florida Public Utilities Company's (FPUC) Commercial Exterior and Interior Lighting Program, non-residential customers must be located within FPUC's electric service area and ensure that installed lighting systems meet or exceed FPUC's specified efficiency criteria, aligning with industry standards such as ASHRAE 90.1. Prior to installation, customers are required to submit a Lighting Rebate Certificate to FPUC for pre-qualification. Upon completion of the installation, a finalized Lighting Rebate Certificate, along with all necessary documentation—including proof of purchase and installation details—must be provided. Customers must also allow FPUC representatives to conduct on-site inspections to verify compliance with program standards. All rebate applications and supporting documents should be submitted within one year of the installation date. For the most current information and detailed guidelines, please refer to FPUC's official rebate documentation.

3.3.3 Rebates & Incentives

Proposed Rebate Structure

Lighting Upgrade Type	Rebate per kWh Saved
LED Display Lighting (Interior)	\$0.30
LED Linear Fixture Replacement	\$0.16
LED Canopy Lighting (Exterior)	\$0.15
LED Parking Lighting	\$0.13
Indoor Agriculture LED Grow Lights	\$0.12
Refrigerated Display Case LED Lighting	\$0.08
LED Exterior Wall Packs	\$0.04
LED High Bay Lighting	\$0.04
Ceiling Mounted Occupancy Sensors	\$0.02

Application Examples

- **LED Display Lighting (Interior):** A system saving 3,448 kWh annually would qualify for a rebate of approximately \$1,034.
- **LED Linear Fixture Replacement:** A system saving 202 kWh annually would be eligible for a rebate of about \$32.
- **LED Canopy Lighting (Exterior):** A system saving 529 kWh annually would receive a rebate of approximately \$79.

This rebate structure is designed to incentivize the adoption of energy-efficient lighting solutions, thereby reducing operational costs and promoting environmental sustainability.

Note: Rebate amounts are subject to change. For the most current information, please refer to FPUC's official rebate guidelines.

3.3.4 Benefits and Costs

Based on the Technical, Economic, and Achievable Study conducted by Resource Innovations for Florida Public Utilities Company (FPUC) in support of the proposed 2024 Demand Side Management (DSM) goals, the Commercial Exterior and Interior program is projected to deliver, on average, per-customer demand reductions of 0.52 kW and annual energy savings of 4,029 kWh. The estimated FPUC nonrecurring cost per customer is \$704.

3.3.5 Monitoring and Evaluation

To assess the factors influencing program participation and non-participation, we will conduct interviews with participants, non-participants, and dealers. Depending on the level of engagement, we may also survey customers who have upgraded their systems to evaluate satisfaction with the improvements. Program reporting will adhere to Rule 25-17.0021(5) of the Florida Administrative Code. Additionally, program expenses will be detailed in the Energy Conservation Cost Recovery (ECCR) True-Up and Projection filings.

3.3.6 Cost-Effectiveness

The following tables provide a comprehensive overview of the program's key metrics, including per-unit avoided energy assumptions, participation requirements, and cost-effectiveness results with their underlying assumptions. These elements are essential for evaluating the program's overall impact and feasibility.

Projected participation estimates were developed based on estimated market adoption rates that were, in turn, based on incentive amounts for the Program measures and the Bass Diffusion Model, which is a mathematical description of how new product adoption and penetration occurs over time

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given specified economic input values. Adoption curve input parameters were developed for each measure based on specific criteria, including measure maturity in the market, overall measure cost to and simple payback for the customer, and whether the measure was currently offered through FPUC’s DSM programs. Customer eligibility was based on FPUC’s forecasted customer counts and the population of customers eligible for measures included in the program. Per-participant kW and kWh reductions were based on estimated savings per installed measure consistent with the technical potential study developed for the 2024 FEECA goalsetting proceedings (Docket No. 20240015-EG), and total kW and kWh savings were calculated using Resource Innovations’ Technical Economic and Achievable Potential (TEA-POT) Model by applying the annual participation values estimated using the adoption curves to the per-participant savings for each measure in the program.

At the Meter:

Program Name: Commercial Lighting		Com Lighting				
Calendar Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2025	3,912	0.42	0.48	70,417	7	9
2026	4,803	0.51	0.59	96,061	10	12
2027	5,976	0.63	0.73	125,492	13	15
2028	6,545	0.69	0.80	157,087	17	19
2029	6,972	0.74	0.86	188,248	20	23
2030	7,437	0.79	0.92	215,663	23	27
2031	7,866	0.83	0.97	235,969	25	29
2032	8,223	0.87	1.01	246,695	26	30
2033	8,246	0.88	1.01	247,369	26	30
2034	8,570	0.91	1.04	239,969	26	29

At the Generator:

Program Name: Commercial Lighting						
Calendar Year	Per Customer kWh Reduction	Per Customer Winter kW Reduction	Per Customer Summer kW Reduction	Total Annual kWh Reduction	Total Annual Winter kW Reduction	Total Annual Summer kW Reduction
2025	4,029	0.45	0.52	72,530	8	9
2026	4,947	0.56	0.64	98,943	11	13
2027	6,155	0.69	0.80	129,257	15	17
2028	6,742	0.76	0.88	161,799	18	21
2029	7,181	0.81	0.94	193,895	22	25
2030	7,660	0.86	1.00	222,132	25	29
2031	8,102	0.91	1.06	243,048	27	32
2032	8,470	0.95	1.10	254,096	29	33
2033	8,493	0.95	1.10	254,790	29	33
2034	8,827	0.99	1.14	247,168	28	32

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Participation:

Program Name: Commercial Lighting		Com Lighting					
Calendar Year	Total Number of Customer	Total Number of Eligible Customers	Projected Annual Average Number of Program Participants	Projected Cumulative Number of Program Participants	Projected Cumulative Penetration Level %		
2025	4,446	4,446	18	18	0.40%		
2026	4,458	4,458	20	38	0.85%		
2027	4,470	4,470	21	59	1.32%		
2028	4,483	4,483	24	83	1.85%		
2029	4,495	4,495	27	110	2.45%		
2030	4,508	4,508	29	139	3.08%		
2031	4,520	4,520	30	169	3.74%		
2032	4,533	4,533	30	199	4.39%		
2033	4,546	4,546	30	229	5.04%		
2034	4,558	4,558	28	257	5.64%		

TRC Test Results:

Program Name: Commercial Lighting		Com Lighting										
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Participant Program Costs \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit Benefits \$(000)	Avoided T&D Benefits \$(000)	Program Fuel Savings \$(000)	Tax Credit Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)
2025	\$0	\$13	\$33	\$0	\$46	\$0	\$0	\$0	\$49	\$0	\$49	\$3
2026	\$0	\$17	\$45	\$0	\$63	\$0	\$0	\$67	\$0	\$67	\$4	\$4
2027	\$0	\$23	\$59	\$0	\$82	\$0	\$0	\$87	\$0	\$87	\$5	\$5
2028	\$0	\$28	\$74	\$0	\$103	\$0	\$0	\$109	\$0	\$109	\$6	\$5
2029	\$0	\$34	\$89	\$0	\$123	\$0	\$0	\$130	\$0	\$130	\$8	\$6
2030	\$0	\$39	\$102	\$0	\$141	\$0	\$0	\$149	\$0	\$149	\$8	\$6
2031	\$0	\$42	\$111	\$0	\$154	\$0	\$0	\$163	\$0	\$163	\$9	\$6
2032	\$0	\$44	\$117	\$0	\$161	\$0	\$0	\$171	\$0	\$171	\$10	\$6
2033	\$0	\$45	\$117	\$0	\$162	\$0	\$0	\$173	\$0	\$173	\$11	\$6
2034	\$0	\$43	\$114	\$0	\$157	\$0	\$0	\$169	\$0	\$169	\$12	\$6
Nominal	\$0	\$328	\$862	\$0	\$1,191	\$0	\$0	\$1,267	\$0	\$1,267	\$77	
NPV	\$0	\$229	\$600	\$0	\$829	\$0	\$0	\$882	\$0	\$882	\$53	
Discount Rate	7%											
Benefit/Cost	1.06											

RIM Test Results:

Program Name: Commercial Lighting		Com Lighting											
Year	Increased Supply Costs \$(000)	Utility Program Costs \$(000)	Revenue Incentives \$(000)	Revenue Losses \$(000)	Other Costs \$(000)	Total Costs \$(000)	Avoided Gen Unit & Fuel Benefits \$(000)	Avoided T&D Benefits \$(000)	Revenue Gains \$(000)	Other Benefits \$(000)	Total Benefits \$(000)	Net Benefits \$(000)	Cumulative Discounted Net Benefits \$(000)
2025	\$0	\$13	\$28	\$90	\$0	\$130	\$49	\$0	\$0	\$0	\$49	-\$81	-\$81
2026	\$0	\$17	\$30	\$123	\$0	\$170	\$67	\$0	\$0	\$0	\$67	-\$103	-\$96
2027	\$0	\$23	\$31	\$160	\$0	\$213	\$87	\$0	\$0	\$0	\$87	-\$126	-\$110
2028	\$0	\$28	\$35	\$200	\$0	\$263	\$109	\$0	\$0	\$0	\$109	-\$154	-\$125
2029	\$0	\$34	\$39	\$239	\$0	\$312	\$130	\$0	\$0	\$0	\$130	-\$181	-\$137
2030	\$0	\$39	\$39	\$273	\$0	\$351	\$149	\$0	\$0	\$0	\$149	-\$202	-\$143
2031	\$0	\$42	\$42	\$299	\$0	\$383	\$163	\$0	\$0	\$0	\$163	-\$220	-\$145
2032	\$0	\$44	\$42	\$313	\$0	\$399	\$171	\$0	\$0	\$0	\$171	-\$228	-\$141
2033	\$0	\$45	\$42	\$316	\$0	\$402	\$173	\$0	\$0	\$0	\$173	-\$230	-\$132
2034	\$0	\$43	\$41	\$309	\$0	\$394	\$169	\$0	\$0	\$0	\$169	-\$224	-\$120
Nominal	\$0	\$328	\$367	\$2,323	\$0	\$3,018	\$1,267	\$0	\$0	\$0	\$1,267	-\$1,751	
NPV	\$0	\$229	\$267	\$1,617	\$0	\$2,112	\$882	\$0	\$0	\$0	\$882	-\$1,230	
Discount Rate	7%												
Benefit/Cost	0.42												

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Participants Test Results:

Program Name: Commercial Lighting												
Year	Savings in				Total Benefits	Customer			Total Costs	Net Benefits	Cumulative Discounted Net Benefits	
	Participants Bills	Tax Credits	Utility Rebates	Other Benefits		Equipment Costs	Customer O&M Costs	Other Costs				
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2025	\$90	\$0	\$28	\$0	\$118	\$33	\$0	\$0	\$33	\$84	\$84	
2026	\$123	\$0	\$30	\$0	\$153	\$45	\$0	\$0	\$45	\$108	\$100	
2027	\$160	\$0	\$31	\$0	\$191	\$59	\$0	\$0	\$59	\$131	\$114	
2028	\$200	\$0	\$35	\$0	\$235	\$74	\$0	\$0	\$74	\$160	\$130	
2029	\$239	\$0	\$39	\$0	\$278	\$89	\$0	\$0	\$89	\$189	\$143	
2030	\$273	\$0	\$39	\$0	\$313	\$102	\$0	\$0	\$102	\$211	\$149	
2031	\$299	\$0	\$42	\$0	\$341	\$111	\$0	\$0	\$111	\$229	\$151	
2032	\$313	\$0	\$42	\$0	\$355	\$117	\$0	\$0	\$117	\$238	\$147	
2033	\$316	\$0	\$42	\$0	\$358	\$117	\$0	\$0	\$117	\$240	\$138	
2034	\$309	\$0	\$41	\$0	\$350	\$114	\$0	\$0	\$114	\$236	\$126	
Nominal	\$2,323	\$0	\$367	\$0	\$2,690	\$862	\$0	\$0	\$862	\$1,828		
NPV	\$1,617	\$0	\$267	\$0	\$1,884	\$600	\$0	\$0	\$600	\$1,283		
Discount Rate	7%											
Benefit/Cost	3.14											

Assumptions:

PROGRAM: Commercial Lighting		
I. PROGRAM DEMAND SAVINGS AND LINE LOSSES		
(1) CUSTOMER KW REDUCTION AT THE METER	0.48 KW/CJST	
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.52 KW GEN/CJST	
(3) KW LINE LOSS PERCENTAGE	8.9 %	
(4) GENERATION KWH REDUCTION PER CUSTOMER	4,029 KWH/CUST/YR	
(5) KWH LINE LOSS PERCENTAGE	3 %	
(6) GROUP LINE LOSS MULTIPLIER	1.0	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0 KWH/CUST/YR	
(8)* CUSTOMER KWH REDUCTION AT METER	3,912 KWH/CUST/YR	
II. ECONOMIC LIFE AND K FACTORS		
(1) STUDY PERIOD FOR CONSERVATION PROGRAM	10 YEARS	
(2) GENERATOR ECONOMIC LIFE	10 YEARS	
(3) T & D ECONOMIC LIFE	10 YEARS	
(4) K FACTOR FOR GENERATION	0	
(5) K FACTOR FOR T & D	0	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	
III. UTILITY AND CUSTOMER COSTS		
(1)** UTILITY NONRECURRING COST PER CUSTOMER	704 \$/CJST	
(2)** UTILITY RECURRING COST PER CUSTOMER	0.0 \$/CJST/YR	
(3) UTILITY COST ESCALATION RATE	2.3 %	
(4) CUSTOMER EQUIPMENT COST	1,851 \$/CJST	
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3 %	
(6) CUSTOMER O & M COST	0.0 \$/CJST/YR	
(7) CUSTOMER O & M ESCALATION RATE	2.3 %	
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0 \$/CJST	
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3 %	
(10)* INCREASED SUPPLY COSTS	0.0 \$/CJST/YR	
(11)* SUPPLY COSTS ESCALATION RATE	2.3 %	
(12)* UTILITY DISCOUNT RATE	7.2 %	
(13)* UTILITY AFUDC RATE	0.0 %	
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	1,645 \$/CJST	
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.0 \$/CJST/YR	
(16)* UTILITY REBATE/INCENTIVE ESCAL. RATE	0.0 %	
IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS		
(1) BASE YEAR	2025	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2015	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2015	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	0 \$/KW	
(5) BASE YEAR AVOIDED TRANSMISSION COST	0 \$/KW	
(6) BASE YEAR DISTRIBUTION COST	0 \$/KW	
(7) GEN, TRAN, & DIST COST ESCALATION RATE	0 %	
(8) GENERATOR FIXED O & M COST	0 \$/KW/YR	
(9) GENERATOR FIXED O&M ESCALATION RATE	0 %	
(10) TRANSMISSION FIXED O & M COST	0.89 \$/KW/YR	
(11) DISTRIBUTION FIXED O & M COST	22.01 \$/KW/YR	
(12) T&D FIXED O&M ESCALATION RATE	2.3 %	
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0 CENTS/KWH	
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	0 %	
(15) GENERATOR CAPACITY FACTOR	48.8 %	
(16) AVOIDED GENERATING UNIT FUEL COST	5,446 CENTS/KWH	
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	0.1 %	
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	172.18 \$/KW/YR	
(19)* CAPACITY COST ESCALATION RATE	2.7 %	
V. NON-FUEL ENERGY AND DEMAND CHARGES		
(1) NON-FUEL COST IN CUSTOMER BILL	2.37 CENTS/KWH	
(2) NON-FUEL ESCALATION RATE	1.2 %	
(3) CUSTOMER DEMAND CHARGE PER KW	0.0 \$/KW/MO	
(4) DEMAND CHARGE ESCALATION RATE	0.0 %	
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	
* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK		
** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).		

4.0 Energy Education & Research Programs

4.1 Overview & Background

In alignment with regulatory directives promoting proactive energy conservation and technological evaluation, including, but not limited to Rule 25-17.001(5)(f), Florida Administrative Code,, Florida Public Utilities Company (FPUC) plans to continue its Conservation Demonstration and Development Program, focusing on the residential sector over the next five years.

4.2 Conservation Demonstration and Development (CDD) Program

The Conservation Demonstration Development Program is a forward-thinking initiative to evaluate emerging energy conservation measures (ECMs) for inclusion in the 2029 Demand-Side Management (DSM) Goals docket. The program tests innovative technologies introduced between 2024 and 2029, focusing on energy savings, cost-effectiveness, and consumer adoption through pilot demonstrations.

The program ensures practical and relevant insights for the state’s utilities by leveraging Florida-specific climate and market data. Findings will inform the expected Technical Potential Study, quantifying energy savings and guiding ECM prioritization for DSM planning.

Collaboration with utilities, industry experts, and stakeholders is central to refining focus areas and aligning with broader DSM objectives. Scalable and cost-effective measures for residential, commercial, and low-income applications will be prioritized.

Section 5: LED Conversion Program

FPUC is also proposing, as an addendum to this DSM Plan, an additional, temporary two-year energy conservation program to facilitate the conversion of 7,122 street lamps to LED technology. The implementation of this proposed program is expected to achieve annual energy savings of 4,230 MWh—nearly ten times FPUC’s annual DSM goal of 465 MWh. Thus, although independent of FPUC’s approved DSM goals and the programs included in this DSM Plan, which are designed to accomplish FPUC’s DSM goals, approval of this temporary program is nonetheless in the public interest and consistent with FEECA in that it offers substantial long-term energy and cost benefits. The key components of the program are as follows:

1. Cost Recovery:

- Unamortized-Depreciation of replaced lamps.

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- Return on investment and Net Depreciation expenses for new LEDs net of the retirements of the old lights including property taxes.
- Marketing costs, including public progress tracking via an online map.
- The Company will also adjust for any revenue earned on lights over or under the revenue in the rate case which was estimated based on a fully completed LED program.

2. Cost-Effectiveness:

- Unit cost: \$203.06 per lamp.
- Favorable metrics: RIM (1.075), TRC (1.824), PT-NPV \$3,516.

5.1 Background

Modeled after Tampa Electric's successful LED conversion program approved in Docket No. 20170199-EI, this proposed temporary program for FPUC will facilitate conversion of street lights to LED and advance the modernization of FPUC's street lighting infrastructure without impacting the 2025-2026 FPUC DSM goals. However, in addition to the unrecovered depreciation recovery in Tampa Electric, the Company is also requesting return on investment and depreciation on the cumulative net plant and property taxes related to the new lights being installed.

Historically, outdoor lighting relied on high-intensity discharge (HID) technologies, such as HPS and MH, which were once considered the most efficient lighting options. However, due to technological advancements and market trends, demand for HPS and MH lighting has declined in favor of more efficient LED alternatives. LEDs convert 95% of consumed energy into light and last significantly longer, reducing maintenance and operational costs.

LED fixtures offer numerous advantages over traditional HID lighting, such as improved energy efficiency, superior lighting quality, and environmental benefits. Unlike HPS and MH fixtures, LEDs do not emit excessive heat, require less energy over time, and produce consistent, uniform light without the need for warm-up periods.

5.2 Program Details

FPUC currently provides HPS, MH, and mercury vapor (MV) lighting to about 7,122 lights across its service territory. The proposed program will replace all these fixtures with LED equivalents over a two-year period, beginning in the first quarter of 2025. If this program is approved, the conversion will occur upon fixture failure or through a systematic approach using dedicated crews. Both company personnel and contractors will assist in completing the project efficiently and within the two-year life of the program.

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This program aims to achieve significant energy savings and minimize any impact on customer billing. Customers whose lights are converted to LED will not require new service agreements.

Customer Communications

If approved, FPUC plans to notify affected customers through general correspondence and targeted communications. For customers whose fixtures are replaced due to outages, door hangers will be provided with further instructions. FPUC will use additional communication channels for planned conversions in specific geographical areas. The cost of customer communications has been included in the cost-effectiveness analysis.

Tariff Modifications

FPUC has already proposed modifications to its tariff, closing HPS and MH lighting tariffs to new customers and offering a new LED tariff. The MV, HPS and MH lighting tariffs are already closed to new customers. At the end of the two years, the Company will propose a tariff change for the lighting rates to include the increase related to the return on investment, depreciation expense and taxes related to the net increase in assets as shown in Appendix C.

Financial Impact and Cost Recovery

The proposed temporary program will facilitate conversion to LED street lights by enabling FPUC to recover the undepreciated balance of all soon-to-be-retired HPS and MH fixtures, which would otherwise result in a loss due to their early retirement, through the ECCR clause. At the end of December 2024, the unamortized depreciation balance for existing luminaires is estimated to be \$1,224,541. This balance would be removed from plant and accumulated depreciation and moved into a regulatory asset. The regulatory asset would be reduced on a per light cost basis of \$171.94 when a new light is installed. Additionally, the Return on Investment, Net Depreciation Expense and property tax costs associated with the new LED luminaires over the 2-year life of the program amount to \$206,638. These costs would be reported based on actual costs and charged to conservation monthly. Combined with the annual communication expenses required to notify, track, and report the conversions, the total program cost is estimated at \$1,446,179, or approximately \$203.06 per luminaire. FPUC's cost-effectiveness tests confirm that the program is highly cost-effective as a DSM initiative, as evidenced by the following test results:

- Participant Cost Test:	NPV of \$3,516
- Total Resource Cost Test:	TRC 1.824
- Rate Impact Measure:	RIM 1.075

5.3 Summary of Supporting Appendixes

Appendix C: Cost-effectiveness results demonstrating favorable test scores across key metrics, including the Participant Test, the Total Resource Cost (TRC) Test, and the Rate

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Impact Measure (RIM) Test. Additionally, the results include all underlying assumptions for avoided energy and costs used in the cost-effectiveness analysis.

Appendix D: A detailed monthly schedule for the two-year program outlining all anticipated accounting transactions related to conservation efforts. This schedule will quantify the total monthly and annual amounts, ensuring a comprehensive financial overview for the entire duration of the program. Additionally, it will include a detailed breakdown of all unamortized depreciation from the old street lamps and an itemized depreciation schedule for the program associated with the new LED luminaires.

Appendix E: Program Standards, detailing the eligibility requirements, specifying the maximum amount per LED to be recovered through Conservation, verification measures, and annual reporting requirements.

APPENDIX A

Florida Public Utilities Company 2025
Demand-Side Management Plan
Program Standards

Residential Energy Survey

Program Description

Summary of the Efficiency 1st Program

The **Efficiency 1st Program** is a customer-focused energy efficiency initiative designed to promote energy conservation through an easy-to-use, reward-based system. By leveraging digital tools and vendor partnerships, the program simplifies participation and encourages residential customers to adopt energy-saving behaviors and technologies. This modern approach prioritizes convenience and engagement to drive meaningful energy savings.

Central to the program is its **online infrastructure**, which provides customers with an intuitive platform to complete energy surveys, track monthly energy consumption, and receive personalized recommendations. The platform integrates participation seamlessly with automated triggers, ensuring timely delivery of rewards and incentives. Customers earn rewards for reaching specific milestones, such as completing energy surveys and tracking consumption. Incentives include weatherization kits, smart power strips, and advanced options like smart thermostats, which foster ongoing engagement and further energy savings.

The program also relies on **vendor partnerships** to manage the fulfillment and direct shipping of rewards, ensuring efficient logistics and delivery of high-quality energy-saving products. To enhance customer engagement, the program provides educational materials and interactive tools that empower participants to make informed decisions about their energy usage. By understanding their consumption patterns, customers can better manage energy costs and implement efficiency measures effectively. The streamlined process minimizes barriers to entry, maximizing accessibility for all residential customers, including low-income households.

The **Efficiency 1st Program** aims to promote the adoption of energy-efficient technologies and practices, deliver measurable reductions in energy consumption, and serve as a foundational component for broader energy conservation initiatives, such as the "Efficiency for All" program. By combining innovative digital infrastructure, customer engagement, and vendor collaboration, the Efficiency 1st Program establishes a scalable model for utility-driven efficiency efforts while contributing to long-term energy savings for its participants.

Eligibility

Eligibility Criteria for the Efficiency 1st Program

The **Efficiency 1st Program** is open to all residential customers served by Florida Public Utilities Company (FPUC). Participation begins with the **Residential Energy Survey Program**, which provides a cost-free energy audit in accordance with Rule 25-17.003 of the Florida Administrative Code. These audits are designed to equip customers with tailored information to identify energy-saving measures that best meet their individual needs.

Key aspects of eligibility include:

1. **Residential Customer Status**

All FPUC residential customers are eligible to participate, ensuring broad access to energy-saving opportunities.

2. **Energy Survey Participation**

Customers must complete the Residential Energy Survey, which acts as a foundation for participation. This survey identifies energy inefficiencies and recommends customized solutions.

3. **Notification and Awareness**

Customers are notified about the availability of the cost-free energy audit every six months, as required by Rule 25-17.003, ensuring ongoing awareness of the program.

By aligning with Florida's regulatory requirements, the **Efficiency 1st Program** ensures equitable access to energy-saving measures while providing customers with actionable insights to reduce energy use and improve efficiency.

Re-eligibility

Applicants who have previously participated in the Efficiency 1st Program must wait five years from the fulfillment date of the kit they received to reapply. In case of a malfunction of any item, including a smart power strip or thermostat, customers should consult the item's specific warranty information and seek replacement through the warranty provider.

Program Procedures

The **Efficiency 1st Program** provides a streamlined and accessible process for FPUC residential customers to enroll, earn incentives, and adopt energy-saving measures. Customers can easily enroll online through the program's website by completing a simple registration form or over the phone with the assistance of a customer service representative. These options ensure broad accessibility and ease of entry into the program.

Upon enrollment, participants are encouraged to complete a **Residential Energy Survey**, which is available online or over the phone. This survey assesses energy usage patterns and offers tailored recommendations for energy efficiency improvements. As an incentive for completing the survey, customers receive a **Weatherization Kit**, which includes items such as weatherstripping, LED bulbs, and energy-saving tips. Once the kit is delivered, supplemental communication—via email, text messages, or follow-up calls—guides customers through the installation process, offering step-by-step instructions, video tutorials, and access to an interactive online portal to log their progress.

After installing the Weatherization Kit, customers confirm completion through a follow-up survey or by uploading photos of the installed measures to the program's portal. Verified participants are then eligible for the next incentive tier: a **Smart Home Energy Kit** that includes advanced tools such as a smart power strip or thermostat. Continued communication keeps participants engaged, providing energy-saving tips, progress tracking, and information about future rewards for ongoing participation. This structured approach ensures customers are supported and motivated throughout the program, fostering widespread adoption of energy-efficient practices and technologies.

Savings Verification

FPUC conducts follow-up surveys with customers after they implement the recommended energy-saving measures. The data collected from these surveys is used to more accurately assess the impact of the energy surveys on energy usage. Reporting for this program will comply with Rule 25-17.0021(5) of the Florida Administrative Code. Furthermore, program expenses will be detailed in the ECCR True-Up and Projection filings.

Residential Heating and Cooling Efficiency Upgrade Program

Program Description

Our incentive program aims to curb the growth of peak energy demand across Florida Public Utilities Company's (FPUC) service areas by promoting the adoption of high-efficiency heat pumps and central air conditioning systems. To qualify, customers must install one of the qualifying systems. The program offers two rebate tiers based on the system's Seasonal Energy Efficiency Ratio (SEER) or the updated SEER2 rating: Tier 1 provides a \$250 rebate for systems with a SEER ranging from the current doe minimum of 15 SEER (14.3 SEER2) to 17.7 (equivalent to SEER2 below 17), while Tier 2 offers a \$500 rebate for systems with a SEER of 17.7 or higher (SEER2 of 17 or above). This structure ensures that more efficient systems receive higher rebates, encouraging energy conservation and reducing utility costs. The Residential Heating & Cooling Efficiency Upgrade Program focuses on two key areas: encouraging customers with inefficient heat pumps and air conditioners to upgrade to more efficient units and motivating those replacing end-of-life systems to choose units exceeding current codes and standards. This incentive also applies to new construction residences. By promoting the installation of high-efficiency equipment, the program aims to enhance energy efficiency, reduce peak demand, and support environmental sustainability.

Customer Eligibility Requirements

- The program applies to straight air conditioners or heat pumps.
- The program applies to replacements as well as new installations.
- The residential dwelling must be an existing single-family structure in FPUC's electric service territory. Mobile homes are eligible if their wheels have been removed and they are set on a lot.
- For a new heat pump installed or a heat pump being replaced, the maximum supplemental strip heating physically contained in the system shall not exceed 2 kW per nominal ton. On a system of less than 2.5 tons, a 5 kW heat strip will be allowed.
- For a heat pump using supplemental strip heating, a two-stage indoor thermostat is required.
- If replacing a straight cooling system, the residence cannot have oil or electric resistance as the primary heat source.
- In the situation where a replacement heating and cooling system will qualify for two rebates (FPUC's and a gas company's), FPUC will not pay its rebate so that a double payment is avoided.
- HVAC contractors will submit rebate request forms to FPUC. The contractor, certifying that the equipment installed accords with the program standards, will sign the form. The customer will sign the form verifying that the equipment was installed and that the incentive recipient's name and mailing address are correct.

- The Heating and Cooling Rebate request form must be received within 30 days of the installation date of the unit to assure the payment of the dealer incentive.
- FPUC will randomly perform full field verifications on a minimum of 10 percent of the participating homes. Homes not selected for the field review will have a telephone or written verification to validate the rebate information.
- FPUC will inspect all mobile home applications to ensure that the wheels are removed and they are set on a lot.
- No payments will be made until FPUC verifies or validates rebate requests.

Re-eligibility

Applicants who have previously participated must wait five years from the fulfillment date of the incentive they received to reapply.

Rebates and Incentives

Our incentive program offers two tiers of rebates to encourage the adoption of high-efficiency air-source heat pumps (ASHP) and ground-source heat pumps (GSHP) in residential settings. These incentives are structured to promote energy conservation and reduce utility costs by rewarding the installation of more efficient systems.

Tier 1: Eligible for a \$250 rebate, this tier includes:

- ASHPs with a minimum efficiency of 15 SEER (14.3 SEER2) when replacing electric resistance heating.
- ASHPs meeting the Consortium for Energy Efficiency (CEE) Tier 2 standards: 16.8 SEER (16 SEER2) and 9.0 HSPF.
- ASHPs that are ENERGY STAR certified or meet CEE Tier 1 criteria: 16 SEER (15.2 SEER2) and 9.0 HSPF.

Tier 2: Offering a \$500 rebate, this tier encompasses:

- ASHPs with an efficiency of 24 SEER (22.9 SEER2) when replacing electric resistance heating.
- ASHPs achieving a minimum of 24 SEER (22.9 SEER2) and 10.5 HSPF.
- ASHPs that comply with the CEE Advanced Tier: 17.8 SEER (17 SEER2) and 10.0 HSPF.
- ENERGY STAR certified ground-source heat pumps.

Program Procedures

HVAC contractors will submit rebate request forms to FPUC within 120 days after completion. The contractor, certifying that the equipment installed accords with the program standards and providing information on the replaced and new heat pump or air conditioner, will sign the form and indicate which type of rebate is being requested. The customer will sign the rebate form verifying that the equipment was installed and that the incentive recipient's name and mailing address are correct and submit the receipt for the installation. No payments will be made until FPUC verifies and approves the rebate request. Once FPUC approves the rebate request, FPUC's contractor for issuing rebates will issue an FPUC Visa gift card (or check when appropriate) via First-Class mail to the customer or contractor within 30 business days. The contractor will be paid by check within 30 business days for the dealer rebate when the rebate request is approved.

Savings Verification

FPUC performs follow-up surveys with customers after program participation. The data gathered from these surveys helps to more precisely evaluate the efficacy of the program. Reporting for this program will adhere to Rule 25-17.0021(5) of the Florida Administrative Code. Additionally, program expenses will be outlined in the ECCR True-Up and Projection filings.

Residential Small Appliance Program

Program Description

Our incentive program provides a \$25 rebate to residential customers who purchase an ENERGY STAR-certified clothes washer. These washers consume about 20% less energy and 30% less water compared to standard models, resulting in substantial utility savings over time.

By encouraging the adoption of high-efficiency appliances, this program seeks to lower household utility expenses and reduce environmental impact. Promoting the use of ENERGY STAR-certified clothes washers lays the groundwork for expanding similar incentives to other energy-efficient technologies in the future.

Customer Eligibility Requirements

To qualify for the \$25 rebate for ENERGY STAR-certified clothes washers, customers must be residential account holders with Florida Public Utilities Company (FPUC), purchase an eligible ENERGY STAR-certified clothes washer, provide a valid sales receipt or invoice detailing the purchase, and submit a completed rebate application with the necessary documentation within 90 days of purchase.

Re-eligibility

Applicants who have previously participated must wait five years from the fulfillment date of the incentive they received to reapply.

Rebates

Florida Public Utilities Company (FPUC) offers a \$25 rebate to residential customers who purchase an ENERGY STAR-certified clothes washer.

Program Procedures

FPUC residential customers can visit the FPUC website to access information about electric energy conservation rebates. The site provides clear instructions for submitting an online rebate application and includes contact details for customers who have additional questions or need further assistance. Customers will be required to show proof of purchase.

Savings Verification

FPUC conducts follow-up surveys with customers after their participation in the program. The data collected from these surveys is used to more accurately assess the program's effectiveness. Program reporting will comply with Rule 25-17.0021(5) of the Florida Administrative Code, and program expenses will be detailed in the ECCR True-Up and Projection filings.

Efficiency for All

Program Description

The Efficiency for All Program is an energy conservation initiative aimed at enhancing energy efficiency in low-income households and communities. Participants begin by completing online energy surveys and monitoring their monthly energy consumption. Upon reaching specific milestones, they receive tiered incentives such as weatherization kits, smart power strips, and programmable thermostats. The program emphasizes community-wide engagement and collaborates with vendors to facilitate the delivery and installation of energy-saving measures. Its primary objective is to alleviate participants' energy burdens while fostering sustainable conservation habits. This approach promotes inclusivity, aligns with regulatory goals, and provides measurable benefits to all stakeholders.

Customer Eligibility Requirements

In its first year (2025), the Efficiency for All Program will operate on a community-by-community basis to ensure targeted and effective implementation. Participation will be limited to low-income housing developments, multifamily buildings, and similar residential complexes, with administrative approval required to align with program goals. This approach prioritizes communities with the greatest need and readiness to participate.

Communities must submit an application for approval, demonstrating energy cost burdens, resident engagement resources, and commitment to the program. Eligible residents within these communities must meet income thresholds consistent with federal or state low-income assistance criteria. Participants will also need to attend an energy conservation workshop and agree to share energy usage data to evaluate program success and refine strategies.

The program will launch with limited availability in 2025 as a pilot initiative, focusing on select communities. Insights from this initial phase will guide improvements and expansion in 2026 to include additional eligible communities and housing developments, ensuring a scalable and sustainable impact.

Re-eligibility

Applicants who have previously participated must wait five years from the fulfillment date of the kit or kits they received to reapply.

Rebates

The Efficiency for All Program provides low-income participants with energy-saving incentives by partnering with contractors and vendors to handle installation. Unlike the self-installation model of

the Efficiency 1st Program, this initiative ensures qualifying participants receive professional installation of weatherization kits and smart energy devices at no cost.

Through these partnerships, FPUC removes barriers to participation, ensuring equitable access to energy efficiency upgrades while simplifying the process for residents. This approach allows participants to immediately benefit from reduced energy costs and improved home comfort, maximizing the program's impact on energy conservation and affordability.

Program Procedures

FPUC residential customers can visit the FPUC website to learn about electric energy conservation rebates and participate in the Efficiency for All Program. The website offers clear instructions for organizations and housing community administrators to submit requests for consideration in the 2025 pilot program.

Savings Verification

FPUC conducts follow-up surveys with customers after program participation to gather data that enables a more accurate assessment of the program's effectiveness. Reporting for the program will align with Rule 25-17.0021(5) of the Florida Administrative Code, and associated expenses will be detailed in the ECCR True-Up and Projection filings.

Commercial HVAC Program

Program Description

Florida Public Utilities Company (FPUC) aims to continue its Commercial Heating & Cooling Efficiency Upgrade Program, offering rebates to small commercial customers. The program is designed to reduce peak demand and limit energy consumption growth in FPUC's commercial sector by encouraging the adoption of high-efficiency heat pumps and air conditioning systems.

Eligibility Requirements

To qualify for Florida Public Utilities Company's (FPUC) Commercial Heating and Cooling Efficiency Upgrade Program, applicants must be non-residential customers within FPUC's electric service territory. Participants must submit a completed rebate application, including proof of purchase and installation, within one year of the installation date. Rebate amounts and efficiency criteria may change, so please refer to FPUC's official rebate guidelines for the most up-to-date information.

Re-eligibility

Applicants who have previously participated must wait five years from receiving the incentive before becoming eligible to participate again.

Rebates

Florida Public Utilities Company (FPUC) provides rebates to non-residential customers who upgrade to high-efficiency heating and cooling systems, supporting energy efficiency initiatives. Rebate amounts are determined by the type and capacity of the installed equipment, as outlined below:

Rebate Criteria:

- **High-Efficiency Direct Expansion (DX) Systems:**
 - *Capacity Less than 5.4 Tons:* \$100 customer rebate; \$25 dealer incentive.
 - *Capacity Between 5.4 and 11.25 Tons:* \$100 customer rebate; \$25 dealer incentive.
- **High-Efficiency Packaged Terminal Heat Pumps (PTHP):**
 - \$100 customer rebate; \$25 dealer incentive.

Program Procedures

HVAC contractors must submit rebate request forms to FPUC within 120 days of project completion. The contractor is responsible for certifying that the installed equipment complies with program standards and for providing details on both the replaced and new heat pump or air conditioning system. The form must include the contractor's signature, specifying the rebate type, and the customer's signature to confirm installation, verify the incentive recipient's name, and provide the correct mailing address. A receipt for the installation must also be submitted.

Rebate payments will only be issued after FPUC verifies and approves the request. Upon approval, FPUC's rebate processing contractor will mail an FPUC Visa gift card (or a check, if applicable) via First-Class mail to the customer or contractor within 30 business days. Dealer rebates will be paid by check within 30 business days following approval of the rebate request.

Savings Verification

FPUC conducts follow-up surveys with customers after program participation to collect data for a more precise evaluation of the program's effectiveness. Program reporting will comply with Rule 25-17.0021(5) of the Florida Administrative Code, and related expenses will be outlined in the ECCR True-Up and Projection filings.

Commercial Chiller Upgrade Program

Program Description

Florida Public Utilities Company (FPUC) seeks to continue its Commercial Chiller Upgrade Program with updated costs and savings projections. This program aims to mitigate the growth of peak demand and energy consumption across FPUC's commercial and industrial sectors. To achieve this, the program requires customers to replace existing chillers with more efficient systems.

Eligibility Requirements

The program includes water-cooled centrifugal chillers, water-cooled scroll or screw chillers, and air-cooled electric chillers. Minimum efficiency requirements for each chiller type, based on size, are outlined in the participation standards section. Customers must submit project proposals to FPUC, after which a pre-installation on-site inspection will be scheduled. Upon project completion, an FPUC representative will perform a final inspection. Compliance with these guidelines is required for rebate eligibility.

Re-eligibility

Applicants who have previously participated are eligible to reapply five years after the date they received their incentive.

Rebates

Florida Public Utilities Company (FPUC) offers two fixed-cost rebate tiers to incentivize non-residential customers to upgrade to high-efficiency water-cooled chillers, promoting significant energy savings:

Rebate Tiers:

1. **Tier 1:** For annual energy savings up to 15,000 kWh, customers receive a rebate of \$0.22 per kWh saved.
2. **Tier 2:** For annual energy savings exceeding 15,000 kWh, the rebate is \$0.17 per kWh saved.

Application Examples:

- A 200-ton centrifugal compressor chiller achieving 15,741 kWh in annual savings qualifies for Tier 2, resulting in a rebate of approximately \$2,676.
- A 500-ton centrifugal compressor chiller with 34,220 kWh in annual savings also falls under Tier 2, leading to a rebate of about \$5,817.
- A 175-ton rotary or screw compressor chiller saving 11,977 kWh annually is eligible for Tier 1, amounting to a rebate of approximately \$2,635.

These rebate tiers are designed to encourage the adoption of energy-efficient chillers, thereby reducing operational costs and promoting environmental sustainability.

Note: Rebate amounts are subject to change. For the most current information, please refer to FPUC's official rebate guidelines.

Program Procedures

HVAC contractors must submit rebate request forms to FPUC within 120 days of project completion. Contractors are responsible for certifying that the installed equipment meets program standards and providing details of both the replaced and new heat pump or air conditioning system. The form must include the contractor's signature to specify the rebate type, the customer's signature to confirm installation, and verification of the incentive recipient's name and correct mailing address. A receipt for the installation must also accompany the submission.

Rebate payments will be processed only after FPUC verifies and approves the request. Once approved, FPUC's rebate processing contractor will issue an FPUC Visa gift card (or a check, if applicable) via First-Class mail to the customer or contractor within 30 business days. Dealer rebates will be issued by check within 30 business days following approval of the rebate request.

Savings Verification

FPUC conducts follow-up surveys with customers following program participation to gather data for accurately evaluating the program's effectiveness. Reporting will adhere to Rule 25-17.0021(5) of the Florida Administrative Code, with associated expenses detailed in the ECCR True-Up and Projection filings.

Commercial Exterior & Interior Lighting Program Program

Program Description

The Commercial Exterior and Interior Lighting Program is a recent addition to Florida Public Utilities Company's (FPUC) energy conservation initiatives. It is designed to encourage non-residential customers to upgrade outdated, inefficient lighting systems to modern, energy-efficient alternatives. Incentives are offered based on anticipated annual energy savings, covering a broad range of end-use applications.

Eligibility Requirements

To participate in Florida Public Utilities Company's (FPUC) Commercial Exterior and Interior Lighting Program, non-residential customers must be located within FPUC's electric service area and ensure the installed lighting systems meet or exceed FPUC's efficiency criteria, in alignment with industry standards such as ASHRAE 90.1.

Prior to installation, customers must submit a Lighting Rebate Certificate to FPUC for pre-qualification. After installation, a completed Lighting Rebate Certificate, along with required documentation—such as proof of purchase and installation details—must be submitted. Customers must also allow FPUC representatives to perform on-site inspections to verify compliance with program standards.

All rebate applications and supporting documents must be submitted within one year of the installation date. For the latest information and detailed program guidelines, please refer to FPUC's official rebate documentation.

Re-eligibility

Applicants who have previously participated may reapply five years from the date their incentive was received.

Rebates

Proposed Rebate Structure

Lighting Upgrade Type	Rebate per kWh Saved
LED Display Lighting (Interior)	\$0.30
LED Linear Fixture Replacement	\$0.16
LED Canopy Lighting (Exterior)	\$0.15
LED Parking Lighting	\$0.13
Indoor Agriculture LED Grow Lights	\$0.12
Refrigerated Display Case LED Lighting	\$0.08
LED Exterior Wall Packs	\$0.04
LED High Bay Lighting	\$0.04
Ceiling Mounted Occupancy Sensors	\$0.02

Application Examples

- **LED Display Lighting (Interior):** A system saving 3,448 kWh annually would qualify for a rebate of approximately \$1,034.
- **LED Linear Fixture Replacement:** A system saving 202 kWh annually would be eligible for a rebate of about \$32.
- **LED Canopy Lighting (Exterior):** A system saving 529 kWh annually would receive a rebate of approximately \$79.

Program Procedures

Commercial lighting contractors must submit rebate request forms to FPUC within 120 days of project completion. Contractors are responsible for certifying that the installed equipment complies with program standards and providing details of both the replaced and new lighting systems. The form must include the contractor's signature to specify the rebate type, the customer's signature to confirm installation and verify the incentive recipient's name and correct mailing address. A receipt for the installation must also be included with the submission.

Rebate payments will be issued only after FPUC reviews and approves the request. Once approved, FPUC's rebate processing contractor will mail an FPUC Visa gift card (or a check, if applicable) via First-Class mail to the customer or contractor within 30 business days. Dealer rebates will be paid by check within 30 business days of rebate approval.

Savings Verification

FPUC conducts follow-up surveys with customers after program participation to collect data for a thorough evaluation of the program's effectiveness. Reporting will comply with Rule 25-17.0021(5) of the Florida Administrative Code, and associated expenses will be included in the ECCR True-Up and Projection filings.

**Appendix BFPUC Program Planner Excel Workbook
(electronic only)**

Appendix C LED Cost Per Luminaire Schedule

Category	2025	2026
Return on Equity & Debt (Incremental)	\$ 3,397	\$ 215,876
Net Depreciation Expense	\$ (68,454)	\$ 5,496
Uncovered Depreciation of Old Lights	\$ 612,271	\$ 612,271
Total	\$ 547,214	\$ 833,643
LED Communications (online progress map)	\$7,500	\$ 7,500
Property Tax		\$ 50,322
Two Year Total		\$ 1,446,179
LED Count		7,122
Unit Cost Recovered Thru EC ¹		\$ 203.06
RIM Test		1.075
TRC Test		1.824
Participants Test		NPV \$3,516
Annual Avoided Energy per LED (kWh)		594
Total Annual Avoided Energy (MWh)		4,230
Total Annual FPUC DSM Goal (MWh)		465

Unit Cost on Undepreciated Plant		\$ 171.94
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1. This Unit Cost includes return on equity, depreciation and communication expense

Appendix C

LED Light Conversion		2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
		January	February	March	April	May	June	July	August	September	October	November	December	2025
CWIP		212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	2,550,000
CWIP CLOSED TO PLANT		(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(2,550,000)
	Plant Additions	212,500	425,000	637,500	850,000	1,062,500	1,275,000	1,487,500	1,700,000	1,912,500	2,125,000	2,337,500	2,550,000	2,550,000
	Less Accumulated Depreciation	-	(514)	(1,541)	(3,081)	(5,135)	(7,703)	(10,784)	(14,379)	(18,488)	(23,109)	(28,245)	(33,894)	(33,894)
Net New Plant		212,500	424,486	635,959	846,919	1,057,365	1,267,297	1,476,716	1,685,621	1,894,013	2,101,891	2,309,255	2,516,106	2,516,106
Less Rate Base in Base Rates:														
	Plant 2024	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)
	Less Acc. Dep.	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676
Net (unrecovered depreciation)		(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)
Net Rate Base		(1,012,041)	(800,055)	(588,582)	(377,623)	(167,177)	42,755	252,174	461,079	669,471	877,349	1,084,714	1,291,565	1,291,565
Net Avg Rate Base		(1,118,291)	(906,048.20)	(694,318.52)	(483,102.37)	(272,399.77)	(62,211)	147,465	356,627	565,275	773,410	981,031	1,188,139	
	Return Rate													
Return on Equity	6.5%	(6,077)	(4,924)	(3,773)	(2,625)	(1,480)	(338)	801	1,938	3,072	4,203	5,331	6,457	2,584
Return on Debt	2.0%	(1,910)	(1,548)	(1,186)	(825)	(465)	(106)	252	609	965	1,321	1,676	2,029	812
Return on Equity & Debt (Incremental)		(7,987)	(6,471)	(4,959)	(3,450)	(1,946)	(444)	1,053	2,547	4,037	5,524	7,007	8,486	3,397
	Depreciation Rate													
Plus Depreciation Expense on additions	2.9%		514	1,027	1,541	2,054	2,568	3,081	3,595	4,108	4,622	5,135	5,649	33,894
Less Depreciation Expense on amounts in base rates	2.9%	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(102,347)
Net Depreciation Expense		(8,529)	(8,015)	(7,502)	(6,988)	(6,475)	(5,961)	(5,448)	(4,934)	(4,421)	(3,907)	(3,394)	(2,880)	(68,454)
Amounts to be recovered		(16,516)	(14,487)	(12,461)	(10,439)	(8,420)	(6,406)	(4,394)	(2,387)	(383)	1,617	3,613	5,606	(65,057)
Plus-Unrecovered Depreciation Recovered		51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	612,271
Marketing/Communication Costs		3,750					3,750							7,500
Amount to be recovered in conservation		38,256	36,536	38,562	40,584	42,602	48,367	46,628	48,636	50,639	52,639	54,636	56,629	554,714

LED Light Conversion		2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	
		January	February	March	April	May	June	July	August	September	October	November	December	2026		Totals	
CWIP		212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	2,550,000	2,550,000
CWIP CLOSED TO PLANT		(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	(212,500)	5,100,000	(141,738)
	Plant Additions	2,762,500	2,975,000	3,187,500	3,400,000	3,612,500	3,825,000	4,037,500	4,250,000	4,462,500	4,675,000	4,887,500	5,100,000	5,100,000	5,100,000	5,100,000	5,100,000
	Less Accumulated Depreciation	(40,056)	(46,732)	(53,922)	(61,625)	(69,842)	(78,572)	(87,816)	(97,573)	(107,844)	(118,628)	(129,926)	(141,738)	(141,738)	(141,738)	(141,738)	(141,738)
Net New Plant		2,722,444	2,928,268	3,133,578	3,338,375	3,542,658	3,746,428	3,949,684	4,152,427	4,354,656	4,556,372	4,757,574	4,958,263	4,958,263	4,958,263	4,958,263	4,958,263
Less Rate Base in Base Rates:																	
	Plant 2024	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)	(3,529,217)
	Less Acc. Dep.	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676	2,304,676
Net (unrecovered depreciation)		(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)	(1,224,541)
Net Rate Base		1,497,902	1,703,726	1,909,037	2,113,834	2,318,117	2,521,887	2,725,143	2,927,886	3,130,115	3,331,830	3,533,033	3,733,721	3,733,721	3,733,721	3,733,721	3,733,721
Net Avg Rate Base		1,394,734	1,600,814	1,806,381	2,011,435	2,215,975	2,420,002	2,623,515	2,826,514	3,029,000	3,230,973	3,432,431	3,633,377	3,633,377	3,633,377	3,633,377	3,633,377
Return on Equity	Return Rate 6.5%	7,579	8,699	9,816	10,931	12,042	13,151	14,257	15,360	16,460	17,558	18,653	19,745	19,745	19,745	164,252	164,252
Return on Debt	Return Rate 2.0%	2,382	2,734	3,085	3,435	3,785	4,133	4,481	4,828	5,173	5,518	5,862	6,206	6,206	6,206	51,624	51,624
Return on Equity & Debt (Incremental)		9,962	11,433	12,902	14,366	15,827	17,284	18,738	20,188	21,634	23,076	24,515	25,951	25,951	25,951	215,876	215,876
Plus Depreciation Expense on additions	Depreciation Rate 2.9%	6,163	6,676	7,190	7,703	8,217	8,730	9,244	9,757	10,271	10,784	11,298	11,811	11,811	11,811	107,844	107,844
Less Depreciation Expense on amounts in base rates	Depreciation Rate 2.9%	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(8,529)	(102,347)	(102,347)
Net Depreciation Expense		(2,366)	(1,853)	(1,339)	(826)	(312)	201	715	1,228	1,742	2,255	2,769	3,283	3,283	3,283	5,496	5,496
Amounts to be recovered		7,595	9,581	11,562	13,540	15,515	17,486	19,453	21,416	23,376	25,332	27,284	29,233	29,233	29,233	221,372	221,372
Plus-Unrecovered Depreciation Recovered		51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	51,023	612,271	612,271
Other:																	
Plus Property Tax	0.02	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	50,322	50,322
		4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	4,194	50,322	50,322
Marketing/Communication Costs		3,750					3,750									7,500	7,500
Amount to be recovered in conservation		66,561.18	64,797	66,778	68,756	70,731	76,452	74,669	76,632	78,592	80,548	82,500	84,449	84,449	84,449	891,465	891,465

Estimate of Non-LED Lighting Investments and Reserve as of 09-2024

Account #	A Lighting Investment As of 9/30/2024 \$	B Adj to Remove LED Installed Investments \$	C Net Investment As of 9/30/2024 \$	D Reserve Allocation As of 9/30/2024 \$	E Adj to Remove LED Installed Reserve Allocation \$	F Net Reserve Allocation As of 9/30/2024 \$	G Reserve % As of 9/30/2024 %	H Net Unrecovered Depreciation \$	I Number of Fixtures #	J Undepreciated Cost Per Fixture \$
371	2,778,566	965,144	1,813,422	1,192,173	74,437	1,117,737		695,685		
373	2,273,072	557,277	1,715,795	1,293,627	106,688	1,186,939		528,856		
Total	5,051,638	1,522,421	3,529,217	2,485,800	181,124	2,304,676		1,224,541	7,122	171.94
	1	2		3	4				7	

Notes (Refer to Line 3):

- A: Investments Source: PowerPlan Report 1124 using only Property Unit ID: Luminaries and Lighting fixtures and outside systems
- B: LED Plant Adjustment Source: LED Material Costs plus Overhead Allocation based on % of total
- C: Net Investment Source: (Column A)-(Column B)
- D: Reserve Allocation: PowerPlan Report 1124 using only Property Unit ID: Luminaries and Lighting fixtures and outside systems
- E: LED A/D Adjustment Source: Allocated Reserve based on LEDs allocated project costs to total
- F: Net Reserve Allocation Source: (Column D)-(Column E)
- G: Reserve % Source: (Column B) / (Column A)
- H: Unrecovered Depreciation \$ Source: (Column C) - (Column F)
- I: Number of Fixtures Source: March 2023 ECIS Billing Report
- J: Undepreciated Cost/Fixture Source: (Column H) / (Column I)

Calculate the same way as GRIP but use D-1 supplement (2025) for rates and C-44 for expansion factor

Long Term Debt	1.71%
Short Term Debt	0.28%
Preferred Stock	0.00%
Customer Deposits	0.06%
Deferred Income Taxes	0.00%
Regulatory Tax Liability	0.00%
ITC- Weighted Cost	0.00%
Common Equity	4.84%
Gross Up	1.3477
	6.521%

Appendix D ...LED Conversion Cost Effectiveness Workbook

Appendix D

PROGRAM: LED Lighting Conversion

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

IV.

(1) CUSTOMER KW REDUCTION AT THE METER	0.13 KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.15 KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.9 %
(4) GENERATION KWH REDUCTION PER CUSTOMER	593.8 KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	3.0 %
(6) GROUP LINE LOSS MULTIPLIER	1.0000
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0 KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	576 KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	25 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T & D ECONOMIC LIFE	25 YEARS
(4) K FACTOR FOR GENERATION	0.00
(5) K FACTOR FOR T & D	0.00
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	203.06 \$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00 \$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.30 %
(4) CUSTOMER EQUIPMENT COST	0.00 \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.30 %
(6) CUSTOMER O & M COST	0.00 \$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.30 %
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00 \$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	0.0 %
(10)* INCREASED SUPPLY COSTS	0.00 \$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	2.30 %
(12)* UTILITY DISCOUNT RATE	10.25 %
(13)* UTILITY AFUDC RATE	0.00 %
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00 \$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00 \$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0.0 %

V.

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILIT

PROGRAM: LED Lighting Cor

AVOIDED GENERATOR, TRANS. AND DIST. COSTS

		* Avoided Generation Unit:		PPA	
		* Program Generation Equivalency Factor:		1.00	
(1)	2024	(1)	(2)	(3)	(4)
(2)	2424				UTILITY
(3)	2424				AVERAGE
(4)	0 \$/KW				SYSTEM
(5)	0 \$/KW				FUEL
(6)	0 \$/KW				COSTS
(7)	0 %				(C/KWH)
(8)	0 \$/KW/YR				
(9)	0 %				
(10)	0 \$/KW/YR				
(11)	0 \$/KW/YR				
(12)	2.3 %	2025	3,561	3561	4,921
(13)	0 CENTS/KWH	2026	7,122	7122	5,644
(14)	0 %	2027	7,122	7122	5,968
(15)	48.8 %	2028	7,122	7122	6,169
(16)	5.968 CENTS/KWH	2029	7,122	7122	4,800
(17)	0.09 %	2030	7,122	7122	4,916
(18)*	0 \$/KWH/YR	2031	7,122	7122	5,035
(19)*	2.71 %	2032	7,122	7122	5,542
		2033	7,122	7122	6,115
		2034	7,122	7122	6,763
		2035	7,122	7122	7,143
		2036	7,122	7122	7,548
		2037	7,122	7122	7,979
		2038	7,122	7122	8,075
		2039	7,122	7122	8,194
		2040	7,122	7122	8,333
		2041	7,122	7122	8,624
		2042	7,122	7122	8,926
		2043	7,122	7122	9,238
		2044	7,122	7122	9,556
		2045	7,122	7122	9,886
		2046	7,122	7122	10,229
		2047	7,122	7122	10,687
		2048	7,122	7122	11,176
		2049	7,122	7122	11,699

NON-FUEL ENERGY AND DEMAND CHARGES

(1)	2.373 CENTS/KWH	\$/KWH	0.02373
(2) NON-FUEL ESCALATION RATE	1.15 %		
(3) CUSTOMER DEMAND CHARGE PER KW	0.00 \$/KW/MO		
(4) DEMAND CHARGE ESCALATION RATE	1.00 %		
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT			
FACTOR FOR CUSTOMER BILL	1.0		

* FIRE Program Version Number: 1.03

Y REBATES ARE INPUT IN III.(14 & 15).

nversion

(5)	(6)	(7)	(8)	(9)	
AVOIDED MARGINAL FUEL COST (C/KWH)	INCREASED MARGINAL FUEL COST (C/KWH)	REPLACEMENT FUEL COST (C/KWH)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWH EFFECTIVENESS FACTOR	ANNUAL Participants
4.921	4.921	4.92	1	1	3,561.0
5.644	5.644	5.64	1	1	3,561.0
5.968	5.968	5.97	1	1	0.0
6.169	6.169	6.17	1	1	0.0
4.800	4.800	4.80	1	1	0.0
4.916	4.916	4.92	1	1	0.0
5.035	5.035	5.04	1	1	0.0
5.542	5.542	5.54	1	1	0.0
6.115	6.115	6.12	1	1	0.0
6.763	6.763	6.76	1	1	0.0
7.143	7.143	7.14	1	1	0.0
7.548	7.548	7.55	1	1	0.0
7.979	7.979	7.98	1	1	0.0
8.075	8.075	8.08	1	1	0.0
8.194	8.194	8.19	1	1	0.0
8.333	8.333	8.33	1	1	0.0
8.624	8.624	8.62	1	1	0.0
8.926	8.926	8.93	1	1	0.0
9.238	9.238	9.24	1	1	0.0
9.556	9.556	9.56	1	1	0.0
9.886	9.886	9.89	1	1	0.0
10.229	10.229	10.23	1	1	0.0
10.687	10.687	10.69	1	1	0.0
11.176	11.176	11.18	1	1	0.0
11.699	11.699	11.70	1	1	0.0

Year	Avoided Energy (\$/KWh)	Avoided Energy (Cents/KWh)
2025	0.05968	5.968
2026	0.06169	6.169
2027	0.048	4.8
2028	0.04916	4.916
2029	0.05035	5.035
2030	0.05542	5.542
2031	0.06115	6.115
2032	0.06763	6.763
2033	0.07143	7.143
2034	0.07548	7.548
2035	0.07979	7.979
2036	0.08075	8.075
2037	0.08194	8.194
2038	0.08333	8.333
2039	0.08624	8.624
2040	0.08926	8.926
2041	0.09238	9.238
2042	0.09556	9.556
2043	0.09886	9.886
2044	0.10229	10.229
2045	0.10687	10.687
2046	0.11176	11.176
2047	0.11699	11.699
2048	0.12459	12.459
2049	0.13288	13.288
2050	0.14194	14.194

INPUTS FOR OTHER COSTS & BENEFITS - EXTERNALLY CALC., FORMS 2.3, 2.4, & 2.5

	(1)	(2)	(3)	(4)	(5)	(6)
	<-- FORM 2.3 -->		<---- FORM 2.4 ---->		<---- FORM 2.5 ---->	
	Total Resource Test		Participants Test		Rate Impact Test	
	OTHER	OTHER	OTHER	OTHER	OTHER	OTHER
	COSTS	BENEFITS	COSTS	BENEFITS	COSTS	BENEFITS
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
2025	0.0	0.0	0.0	0.0	0.0	0.0
2026	0.0	0.0	0.0	0.0	0.0	0.0
2027	0.0	0.0	0.0	0.0	0.0	0.0
2028	0.0	0.0	0.0	0.0	0.0	0.0
2029	0.0	0.0	0.0	0.0	0.0	0.0
2030	0.0	0.0	0.0	0.0	0.0	0.0
2031	0.0	0.0	0.0	0.0	0.0	0.0
2032	0.0	0.0	0.0	0.0	0.0	0.0
2033	0.0	0.0	0.0	0.0	0.0	0.0
2034	0.0	0.0	0.0	0.0	0.0	0.0
2035	0.0	0.0	0.0	0.0	0.0	0.0
2036	0.0	0.0	0.0	0.0	0.0	0.0
2037	0.0	0.0	0.0	0.0	0.0	0.0
2038	0.0	0.0	0.0	0.0	0.0	0.0
2039	0.0	0.0	0.0	0.0	0.0	0.0
2040	0.0	0.0	0.0	0.0	0.0	0.0
2041	0.0	0.0	0.0	0.0	0.0	0.0
2042	0.0	0.0	0.0	0.0	0.0	0.0
2043	0.0	0.0	0.0	0.0	0.0	0.0
2044	0.0	0.0	0.0	0.0	0.0	0.0
2045	0.0	0.0	0.0	0.0	0.0	0.0
2046	0.0	0.0	0.0	0.0	0.0	0.0
2047	0.0	0.0	0.0	0.0	0.0	0.0
2048	0.0	0.0	0.0	0.0	0.0	0.0
2049	0.0	0.0	0.0	0.0	0.0	0.0

AVOIDED GENERATION UNIT BENEFITS
PROGRAM: LED Lighting Conversion

* UNIT SIZE OF AVOIDED GENERATION UNIT = 0.15 kW
* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = \$0

(1)	(1A)*	(2)	(2A)*	(3)	(4)	(5)	(6)	(6A)	(7)
Year	VALUE OF DEFERRAL FACTOR	AVOIDED GEN UNIT CAPACITY COST \$(000)	AVOIDED ANNUAL UNIT KWH GEN (000)	AVOIDED UNIT FIXED O&M COST \$(000)	AVOIDED GEN UNIT VARIABLE O&M COST \$(000)	AVOIDED GEN UNIT FUEL COST \$(000)	REPLACEMENT FUEL COST \$(000)	AVOIDED PURCHASED CAPACITY COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)
2025	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2026	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2027	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2028	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2029	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2030	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2031	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2032	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2033	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2034	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2035	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2036	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2037	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2038	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2039	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2040	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2041	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2042	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2043	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2044	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2045	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2046	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2047	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2048	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
2049	0.00	0.0000	0.0000	0.00	0.00	0.00	0.00	0.000	0.00
NOMINAL		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NPV		0.00		0.00	0.00	0.00	0.00	0.00	0.00

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS
 PROGRAM: LED Lighting Conversion

* INSERVICE COSTS OF AVOIDED TRANS. (000) = \$0
 * INSERVICE COSTS OF AVOIDED DIST. (000) = \$0

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Year	AVOIDED TRANSMISSION CAPACITY COST \$(000)	AVOIDED TRANSMISSION O&M COST (000)	TOTAL AVOIDED TRANSMISSION COST \$(000)	AVOIDED DISTRIBUTION CAPACITY COST \$(000)	AVOIDED DISTRIBUTION O&M COST \$(000)	TOTAL AVOIDED DISTRIBUTION COST \$(000)	PROGRAM FUEL SAVINGS \$(000)
2025	0.00	0.4627	0.4627	0.00	11.44	11.44	104.06
2026	0.00	0.9467	0.9467	0.00	23.41	23.41	238.69
2027	0.00	0.9684	0.9684	0.00	23.95	23.95	252.40
2028	0.00	0.9907	0.9907	0.00	24.50	24.50	260.90
2029	0.00	1.0135	1.0135	0.00	25.06	25.06	203.00
2030	0.00	1.0368	1.0368	0.00	25.64	25.64	207.90
2031	0.00	1.0607	1.0607	0.00	26.23	26.23	212.94
2032	0.00	1.0851	1.0851	0.00	26.83	26.83	234.38
2033	0.00	1.1100	1.1100	0.00	27.45	27.45	258.61
2034	0.00	1.1355	1.1355	0.00	28.08	28.08	286.02
2035	0.00	1.1617	1.1617	0.00	28.73	28.73	302.09
2036	0.00	1.1884	1.1884	0.00	29.39	29.39	319.22
2037	0.00	1.2157	1.2157	0.00	30.07	30.07	337.44
2038	0.00	1.2437	1.2437	0.00	30.76	30.76	341.50
2039	0.00	1.2723	1.2723	0.00	31.46	31.46	346.54
2040	0.00	1.3015	1.3015	0.00	32.19	32.19	352.41
2041	0.00	1.3315	1.3315	0.00	32.93	32.93	364.72
2042	0.00	1.3621	1.3621	0.00	33.69	33.69	377.49
2043	0.00	1.3934	1.3934	0.00	34.46	34.46	390.69
2044	0.00	1.4255	1.4255	0.00	35.25	35.25	404.14
2045	0.00	1.4583	1.4583	0.00	36.06	36.06	418.09
2046	0.00	1.4918	1.4918	0.00	36.89	36.89	432.60
2047	0.00	1.5261	1.5261	0.00	37.74	37.74	451.97
2048	0.00	1.5612	1.5612	0.00	38.61	38.61	472.65
2049	0.00	1.5971	1.5971	0.00	39.50	39.50	494.77
NOMINAL	0.00	30.34	30.34	0.00	750.33	750.33	8,065.21
NPV	0.00	10.39	10.39	0.00	257.06	257.06	2,600.54

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: LED Lighting Conversion

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH \$(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH \$(000)	NET AVOIDED PROGRAM FUEL SAVINGS \$(000)	EFFECTIVE PROGRAM FUEL SAVINGS \$(000)
2025	2,114.57	104.06	0.0000	0.0000	104.06	104.06
2026	4,229.15	238.69	0.0000	0.0000	238.69	238.69
2027	4,229.15	252.40	0.0000	0.0000	252.40	252.40
2028	4,229.15	260.90	0.0000	0.0000	260.90	260.90
2029	4,229.15	203.00	0.0000	0.0000	203.00	203.00
2030	4,229.15	207.90	0.0000	0.0000	207.90	207.90
2031	4,229.15	212.94	0.0000	0.0000	212.94	212.94
2032	4,229.15	234.38	0.0000	0.0000	234.38	234.38
2033	4,229.15	258.61	0.0000	0.0000	258.61	258.61
2034	4,229.15	286.02	0.0000	0.0000	286.02	286.02
2035	4,229.15	302.09	0.0000	0.0000	302.09	302.09
2036	4,229.15	319.22	0.0000	0.0000	319.22	319.22
2037	4,229.15	337.44	0.0000	0.0000	337.44	337.44
2038	4,229.15	341.50	0.0000	0.0000	341.50	341.50
2039	4,229.15	346.54	0.0000	0.0000	346.54	346.54
2040	4,229.15	352.41	0.0000	0.0000	352.41	352.41
2041	4,229.15	364.72	0.0000	0.0000	364.72	364.72
2042	4,229.15	377.49	0.0000	0.0000	377.49	377.49
2043	4,229.15	390.69	0.0000	0.0000	390.69	390.69
2044	4,229.15	404.14	0.0000	0.0000	404.14	404.14
2045	4,229.15	418.09	0.0000	0.0000	418.09	418.09
2046	4,229.15	432.60	0.0000	0.0000	432.60	432.60
2047	4,229.15	451.97	0.0000	0.0000	451.97	451.97
2048	4,229.15	472.65	0.0000	0.0000	472.65	472.65
2049	4,229.15	494.77	0.0000	0.0000	494.77	494.77
NOMINAL	103,614.0866	8,065.2148	0.0000	0.0000	8,065.2148	8,065.2148
NPV		2,600.5403	0.0000	0.0000	2,600.5403	2,600.5403

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS/GAIN
PROGRAM: LED Lighting Conversion

(1)	(2) UTILITY PROGRAM COSTS & REBATES			(8) PARTICIPATING CUSTOMER COSTS & BENEFITS										(15)	(16)	(17)	(18)
	(2) UTIL. NONREC. COSTS \$'(000)	(3) UTIL. RECUR. COSTS \$'(000)	(4) TOTAL UTIL. PGM COSTS \$'(000)	(5) UTIL. NONREC. REBATES \$'(000)	(6) UTIL. RECUR. REBATES \$'(000)	(7) TOTAL REBATE/ INCENT. COSTS \$'(000)	(8) PARTIC. CUST. EQUIP. COSTS \$'(000)	(9) PARTIC. CUST. O & M COSTS \$'(000)	(10) TOTAL PARTIC. CUST. COSTS \$'(000)	(11) REDUCT. IN CUST. KWH (000)	(12) RED. REV. - FUEL \$'(000)	(13) RED. REV. NONFUEL PORTION \$'(000)	(14) EFFECT. REV. REDUCT. IN BILL \$'(000)				
2025	739.7279	0.0000	739.7279	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2,051.14	100.9364	48.6735	149.6099	0.0000	0.0000	0.0000	0.0000
2026	756.7416	0.0000	756.7416	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	231.5322	98.4664	329.9986	0.0000	0.0000	0.0000	0.0000
2027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	244.8236	99.5988	344.4224	0.0000	0.0000	0.0000	0.0000
2028	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	253.0692	100.7442	353.8133	0.0000	0.0000	0.0000	0.0000
2029	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	196.9091	101.9027	298.8118	0.0000	0.0000	0.0000	0.0000
2030	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	201.6677	103.0746	304.7423	0.0000	0.0000	0.0000	0.0000
2031	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	206.5494	104.2600	310.8093	0.0000	0.0000	0.0000	0.0000
2032	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	227.3479	105.4589	332.8069	0.0000	0.0000	0.0000	0.0000
2033	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	250.8539	106.6717	357.5257	0.0000	0.0000	0.0000	0.0000
2034	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	277.4567	107.8984	385.3351	0.0000	0.0000	0.0000	0.0000
2035	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	293.0253	109.1393	402.1646	0.0000	0.0000	0.0000	0.0000
2036	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	309.6395	110.3944	420.0339	0.0000	0.0000	0.0000	0.0000
2037	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	327.3205	111.6639	438.9842	0.0000	0.0000	0.0000	0.0000
2038	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	331.2585	112.9480	444.2065	0.0000	0.0000	0.0000	0.0000
2039	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	336.1402	114.2469	450.3871	0.0000	0.0000	0.0000	0.0000
2040	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	341.8423	115.5608	457.4031	0.0000	0.0000	0.0000	0.0000
2041	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	353.7799	116.8897	470.6697	0.0000	0.0000	0.0000	0.0000
2042	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	366.1688	118.2340	484.4028	0.0000	0.0000	0.0000	0.0000
2043	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	378.9679	119.5937	498.5615	0.0000	0.0000	0.0000	0.0000
2044	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	392.0131	120.9690	512.9821	0.0000	0.0000	0.0000	0.0000
2045	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	405.5506	122.3601	527.9107	0.0000	0.0000	0.0000	0.0000
2046	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	419.6214	123.7673	543.3887	0.0000	0.0000	0.0000	0.0000
2047	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	438.4098	125.1906	563.6004	0.0000	0.0000	0.0000	0.0000
2048	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	458.4699	126.6303	585.1002	0.0000	0.0000	0.0000	0.0000
2049	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4,102.27	479.9248	128.0865	608.0113	0.0000	0.0000	0.0000	0.0000
NOMINAL	1,496.4695	0.0000	1,496.4695	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	#####	7,823.2583	2,752.4237	10,575.6820	0.0000	0.0000	0.0000	0.0000
NPV	1,426.1148	0.0000	1,426.1148	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2,522.5241	993.8413	3,516.3654		0.0000	0.0000	0.0000

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

Capacity (Expressed in KWh)			Energy (KWh)			
KWh	Escalator	Total KWh	kWh	Escalator	Total KWh	Sum
0	1	0	48673.457	1	48673.457	48.673457
0	1.0636	0	97346.915	1.0115	98466.404	98.466404
0	1.131245	0	97346.915	1.0231323	99598.768	99.598768
0	1.2031921	0	97346.915	1.0348983	100744.15	100.74415
0	1.2797152	0	97346.915	1.0467996	101902.71	101.90271
0	1.361105	0	97346.915	1.0588378	103074.59	103.07459
0	1.4476713	0	97346.915	1.0710444	104259.95	104.25995
0	1.5397432	0	97346.915	1.0833311	105458.94	105.45894
0	1.6376709	0	97346.915	1.0957894	106671.72	106.67172
0	1.7418268	0	97346.915	1.108391	107898.44	107.89844
0	1.8526069	0	97346.915	1.1211375	109139.27	109.13927
0	1.9704327	0	97346.915	1.1340306	110394.38	110.39438
0	2.0957523	0	97346.915	1.1470719	111663.91	111.66391
0	2.2290421	0	97346.915	1.1602632	112948.05	112.94805
0	2.3708092	0	97346.915	1.1736063	114246.95	114.24695
0	2.5215926	0	97346.915	1.1871027	115560.79	115.56079
0	2.6819659	0	97346.915	1.2007544	116889.74	116.88974
0	2.852539	0	97346.915	1.2145631	118233.97	118.23397
0	3.0339605	0	97346.915	1.2285306	119593.66	119.59366
0	3.2269203	0	97346.915	1.2426587	120968.99	120.96899
0	3.4321525	0	97346.915	1.2569492	122360.13	122.36013
0	3.6504374	0	97346.915	1.2714042	123767.27	123.76727
0	3.8826052	0	97346.915	1.2860253	125190.6	125.1906
0	4.1285389	0	97346.915	1.3008146	126630.29	126.63029
0	4.3921776	0	97346.915	1.315774	128086.54	128.08654
0	4.6715200	0	97346.915	1.3309054	129559.53	129.55953

TOTAL RESOURCE COST TESTS
PROGRAM: LED Lighting Conversion

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	INCREMENTAL PURCHASED POWER BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)
2025	0.00	739.73	0.00	0.00	739.73	0.00	0.00	104.06	0.00	104.06	(635.67)
2026	0.00	756.74	0.00	0.00	756.74	0.00	0.00	238.69	0.00	238.69	(518.05)
2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	252.40	0.00	252.40	252.40
2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	260.90	0.00	260.90	260.90
2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	203.00	0.00	203.00	203.00
2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	207.90	0.00	207.90	207.90
2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	212.94	0.00	212.94	212.94
2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	234.38	0.00	234.38	234.38
2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	258.61	0.00	258.61	258.61
2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	286.02	0.00	286.02	286.02
2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	302.09	0.00	302.09	302.09
2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	319.22	0.00	319.22	319.22
2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	337.44	0.00	337.44	337.44
2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	341.50	0.00	341.50	341.50
2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	346.54	0.00	346.54	346.54
2040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	352.41	0.00	352.41	352.41
2041	0.00	0.00	0.00	0.00	0.00	0.00	0.00	364.72	0.00	364.72	364.72
2042	0.00	0.00	0.00	0.00	0.00	0.00	0.00	377.49	0.00	377.49	377.49
2043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	390.69	0.00	390.69	390.69
2044	0.00	0.00	0.00	0.00	0.00	0.00	0.00	404.14	0.00	404.14	404.14
2045	0.00	0.00	0.00	0.00	0.00	0.00	0.00	418.09	0.00	418.09	418.09
2046	0.00	0.00	0.00	0.00	0.00	0.00	0.00	432.60	0.00	432.60	432.60
2047	0.00	0.00	0.00	0.00	0.00	0.00	0.00	451.97	0.00	451.97	451.97
2048	0.00	0.00	0.00	0.00	0.00	0.00	0.00	472.65	0.00	472.65	472.65
2049	0.00	0.00	0.00	0.00	0.00	0.00	0.00	494.77	0.00	494.77	494.77
NOMINAL	0.00	1,496.47	0.00	0.00	1,496.47	0.00	0.00	8,065.21	0.00	8,065.21	1,064.51
NPV	0.00	1,426.11	0.00	0.00	1,426.11	0.00	0.00	2,600.54	0.00	2,600.54	1,174.43
				Discount Rate:	10.25%						
				Benefit/Cost Ratio [col (11) / col (6)]:	1.824						

PARTICIPANT COSTS AND BENEFITS
PROGRAM: LED Lighting Conversion

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	SAVINGS IN PARTICIPANTS BILL \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O & M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)
2025	149.61	0.00	0.00	0.00	149.61	0.00	0.00	0.00	0.00	149.61
2026	330.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00	0.00	330.00
2027	344.42	0.00	0.00	0.00	344.42	0.00	0.00	0.00	0.00	344.42
2028	353.81	0.00	0.00	0.00	353.81	0.00	0.00	0.00	0.00	353.81
2029	298.81	0.00	0.00	0.00	298.81	0.00	0.00	0.00	0.00	298.81
2030	304.74	0.00	0.00	0.00	304.74	0.00	0.00	0.00	0.00	304.74
2031	310.81	0.00	0.00	0.00	310.81	0.00	0.00	0.00	0.00	310.81
2032	332.81	0.00	0.00	0.00	332.81	0.00	0.00	0.00	0.00	332.81
2033	357.53	0.00	0.00	0.00	357.53	0.00	0.00	0.00	0.00	357.53
2034	385.34	0.00	0.00	0.00	385.34	0.00	0.00	0.00	0.00	385.34
2035	402.16	0.00	0.00	0.00	402.16	0.00	0.00	0.00	0.00	402.16
2036	420.03	0.00	0.00	0.00	420.03	0.00	0.00	0.00	0.00	420.03
2037	438.98	0.00	0.00	0.00	438.98	0.00	0.00	0.00	0.00	438.98
2038	444.21	0.00	0.00	0.00	444.21	0.00	0.00	0.00	0.00	444.21
2039	450.39	0.00	0.00	0.00	450.39	0.00	0.00	0.00	0.00	450.39
2040	457.40	0.00	0.00	0.00	457.40	0.00	0.00	0.00	0.00	457.40
2041	470.67	0.00	0.00	0.00	470.67	0.00	0.00	0.00	0.00	470.67
2042	484.40	0.00	0.00	0.00	484.40	0.00	0.00	0.00	0.00	484.40
2043	498.56	0.00	0.00	0.00	498.56	0.00	0.00	0.00	0.00	498.56
2044	512.98	0.00	0.00	0.00	512.98	0.00	0.00	0.00	0.00	512.98
2045	527.91	0.00	0.00	0.00	527.91	0.00	0.00	0.00	0.00	527.91
2046	543.39	0.00	0.00	0.00	543.39	0.00	0.00	0.00	0.00	543.39
2047	563.60	0.00	0.00	0.00	563.60	0.00	0.00	0.00	0.00	563.60
2048	585.10	0.00	0.00	0.00	585.10	0.00	0.00	0.00	0.00	585.10
2049	608.01	0.00	0.00	0.00	608.01	0.00	0.00	0.00	0.00	608.01
NOMINAL	10,575.68	0.00	0.00	0.00	10,575.68	0.00	0.00	0.00	0.00	10,575.68
NPV	3,516.37	0.00	0.00	0.00	3,516.37	0.00	0.00	0.00	0.00	3,516.37

In-service year of generation unit: 2024
Discount rate: 10.25%

RATE IMPACT TEST
PROGRAM: LED Lighting Conversion

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	NON-FUEL REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T & D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS TO ALL CUSTOMERS \$(000)
2025	0.00	739.73	0.00	48.67	0.00	788.40	104.06	0.00	0.00	0.00	104.06	(684.34)
2026	0.00	756.74	0.00	98.47	0.00	855.21	238.69	0.00	0.00	0.00	238.69	(616.52)
2027	0.00	0.00	0.00	99.60	0.00	99.60	252.40	0.00	0.00	0.00	252.40	152.80
2028	0.00	0.00	0.00	100.74	0.00	100.74	260.90	0.00	0.00	0.00	260.90	160.15
2029	0.00	0.00	0.00	101.90	0.00	101.90	203.00	0.00	0.00	0.00	203.00	101.10
2030	0.00	0.00	0.00	103.07	0.00	103.07	207.90	0.00	0.00	0.00	207.90	104.83
2031	0.00	0.00	0.00	104.26	0.00	104.26	212.94	0.00	0.00	0.00	212.94	108.68
2032	0.00	0.00	0.00	105.46	0.00	105.46	234.38	0.00	0.00	0.00	234.38	128.92
2033	0.00	0.00	0.00	106.67	0.00	106.67	258.61	0.00	0.00	0.00	258.61	151.94
2034	0.00	0.00	0.00	107.90	0.00	107.90	286.02	0.00	0.00	0.00	286.02	178.12
2035	0.00	0.00	0.00	109.14	0.00	109.14	302.09	0.00	0.00	0.00	302.09	192.95
2036	0.00	0.00	0.00	110.39	0.00	110.39	319.22	0.00	0.00	0.00	319.22	208.82
2037	0.00	0.00	0.00	111.66	0.00	111.66	337.44	0.00	0.00	0.00	337.44	225.78
2038	0.00	0.00	0.00	112.95	0.00	112.95	341.50	0.00	0.00	0.00	341.50	228.56
2039	0.00	0.00	0.00	114.25	0.00	114.25	346.54	0.00	0.00	0.00	346.54	232.29
2040	0.00	0.00	0.00	115.56	0.00	115.56	352.41	0.00	0.00	0.00	352.41	236.85
2041	0.00	0.00	0.00	116.89	0.00	116.89	364.72	0.00	0.00	0.00	364.72	247.83
2042	0.00	0.00	0.00	118.23	0.00	118.23	377.49	0.00	0.00	0.00	377.49	259.26
2043	0.00	0.00	0.00	119.59	0.00	119.59	390.69	0.00	0.00	0.00	390.69	271.09
2044	0.00	0.00	0.00	120.97	0.00	120.97	404.14	0.00	0.00	0.00	404.14	283.17
2045	0.00	0.00	0.00	122.36	0.00	122.36	418.09	0.00	0.00	0.00	418.09	295.73
2046	0.00	0.00	0.00	123.77	0.00	123.77	432.60	0.00	0.00	0.00	432.60	308.83
2047	0.00	0.00	0.00	125.19	0.00	125.19	451.97	0.00	0.00	0.00	451.97	326.78
2048	0.00	0.00	0.00	126.63	0.00	126.63	472.65	0.00	0.00	0.00	472.65	346.02
2049	0.00	0.00	0.00	128.09	0.00	128.09	494.77	0.00	0.00	0.00	494.77	366.68
NOMINAL	0.00	1,496.47	0.00	2,752.42	0.00	4,248.89	8,065.21	0.00	0.00	0.00	8,065.21	3,816.32
NPV	0.00	1,426.11	0.00	993.84	0.00	2,419.96	2,600.54	0.00	0.00	0.00	2,600.54	180.58

Discount rate: 10.25%
Benefit / Cost Ratio [col (12) / col (7)]: 1.075

Appendix E LED Conversion Program Standards

Appendix E

FPUC LED Program Standards:

Program: Street and Outdoor Lighting Conversion

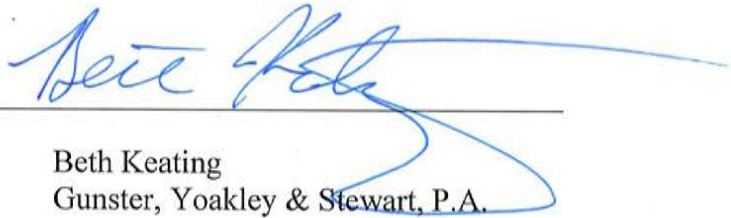
Program Participation Standards

1. Only active Non-Light Emitting Diode ("LED") luminaires, as identified in FPUC's LED Conversion Program, to be converted to LED luminaires are eligible for this program.
2. The total recovery amount is \$217.09 per eligible converted luminaire.
3. Upon completion of the two-year LED Conversion Program, the company shall notify the Florida Public Service Commission within 30 days.
4. FPUC will randomly perform field verifications on a minimum of 10 percent of the converted LED luminaires. All luminaires not selected for field review will have an office verification to validate installation information.
5. The reporting requirements for this program will follow Rule 25-17.0021 (5), F.A.C. Additionally, program expenses will be identified in the ECCR True-Up and Projection Filings.

CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the foregoing Petition and DSM Plan of FPUC, has been served by Electronic Mail this 19th day of December, 2024, upon the following:

<p>Jacob Imig Jonathan Rubottom Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850 jimig@psc.state.fl.us jrubotto@psc.state.fl.us discovery-gcl@psc.state.fl.us</p>	
<p>Erik L. Sayler Florida Department of Agriculture and Consumer Services The Mayo Building 407 S. Calhoun Street, Suite 520 Tallahassee FL 32399 erik.sayler@FDACS.gov</p>	<p>Stephanie U. Eaton Spilman Thomas & Battle, PLLC 110 Oakwood Drive, Suite 500 Winston-Salem NC 27103 (336) 631-1062 (336) 725-4476 seaton@spilmanlaw.com</p>



Beth Keating
Gunster, Yoakley & Stewart, P.A.