Stephanie A. Cuello
SENIOR COUNSEL

February 6, 2025

VIA ELECTRONIC FILING

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

Re: *Duke Energy Florida, LLC's Petition for Approval of Proposed Demand-Side Management Plan;* Docket No. 20240169-EG

Dear Mr. Teitzman:

Please find attached for electronic filing Duke Energy Florida, LLC's Response to Staff's First Data Request.

Thank you for your assistance in this matter and if you have any questions, please feel free to contact me at (850) 521-1425.

Sincerely,

/s/ Stephanie A. Cuello

Stephanie A. Cuello

SAC/clg
Attachment

106 East College Avenue, Suite 800, Tallahassee, FL 32301 ▪ Phone: 850.521.1425
▪ Email: stephanie.cuello@duke-energy.com

CERTIFICATE OF SERVICE

Docket No. 20240169-EG

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 6th day of February, 2025.

/s/ Stephanie A. Cuello
Stephanie A. Cuello
Attorney

Jacob Imig / Carlos Marquez Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 jimig@psc.state.fl.us CMarquez@psc.state.fl.us discovery-gcl@psc.state.fl.us	

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Duke Energy Florida, LLC	Docket No.: 20240169-EG
Demand-Side Management Plan and Demand-Side Management Standards	Dated: February 6, 2025

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DUKE ENERGY FLORIDA, LLC'S
RESPONSE TO STAFF'S
FIRST DATA REQUEST TO DEF (Nos. 1-8)

Duke Energy Florida, LLC ("DEF") responds to the Staff of the Florida Public Service Commission's ("Staff") First Data Request to DEF (Nos. 1-8), as follows:

1. Please provide a statement indicating if the programs included in DEF's proposed demand-side management (DSM) plan are the same as the programs used to develop the Utility's DSM goals approved by Order No. PSC-2024-0429-FOF-EG. If there were any changes in program costs, savings, incentives/rebates, participation rates, cost- effectiveness test results, or other program parameters following approval of the Utility's goals, please detail and provide an explanation for the changes for each relevant program and how they were derived.

Response:
The programs included in DEF's proposed demand side management (DSM) plan are the same as the programs used to develop the Utility's DSM goals approved by Order No. PSC-2024-0429-FOF-EG and as approved in the Final Order Approving 2024 Settlement Agreement by Order No. PSC 2024-0472-AS-EI.

Please see responses to Question #6 and Question #8 below for changes.

2. Please refer to Table 3 of DEF's proposed DSM plan for the following questions:

a. For each year of the 2025 through 2034 goals period, please indicate if the projected annual residential bill impact for DEF's proposed DSM plan is the same as the projected annual residential bill impact identified for the programs used to develop the Utility's DSM goals in Docket No. 20240013-EG. If not, please explain why.

Response:
The projected annual residential bill impacts for DEF's proposed DSM Plan are the same as those filed in the Updated Petition for Approval of Conservation Goals in Docket No. 20240013-EG for years 2025 through 2034.

b. For the period 2025 through 2034, please complete the table below by providing the projected Energy Conservation Cost Recovery (ECCR) Clause annual expenditures. As part of this response, please provide an electronic version of the table in Microsoft Excel format.

Response:
The Energy Conservation Cost Recovery (ECCR) Clause's annual expenditures are for a period of only one calendar year (January 1st-December 31st). The expenditures that can be provided at this time are for 2025 as DEF does not forecast projected ECCR Clause's annual expenditures beyond the one-year timeframe.

Year	ECCR Expenditures
2025	$131,821,851
2026	
2027	
2028	
2029	
2030	
2031	
2032	
2033	
2034	

3. For each year of the 2025 through 2034 goals period, please provide a table displaying the total projected annual program cost for each program in DEF's proposed DSM plan. If the annual program cost differs from the annual program cost provided in Docket No. 20240013-EG for any program, please explain why for each.

Response:
Please see Exhibit A, DEF's Response to Staff's DR1-3 attached hereto. The program costs differences are as follows:

- The addition of measures for the Residential Incentive program;
- The carve out for the Multi-Family New Builder Construction program;
- The addition of Smart Thermostats as a measure and an increase of targeted homes to 5,775 annually for the Neighborhood Energy Saver program; and
- The capital costs that were included for the Load Management Program.

4. For the period 2025 through 2034 and for each program in DEF's proposed DSM plan, please provide a table displaying the projected program participation, and the projected summer and winter demand, and annual energy savings that are expected to contribute to DEF's DSM goals.

Response:
Please see Exhibit B, DEF's Response to Staff's DR1-4 attached hereto.

5. Please refer to DEF's Technology Development program for the following questions:

a. Please explain how the annual cap of $800,000 was determined.

Response:
The Technology Development Program was initiated in 1995, the program was approved by the Florida Public Service Commission, and annual expenditures were set at $800,000 per year since then.

b. Please detail the projects investigated under this program from 2020 through 2024. As part of this response, please describe each project's objective, and identify the project costs.

Response:
The following research and development projects were investigated from 2020 to 2024:

- DEF researched new and improved technologies for potential energy efficiency and demand response. DEF partnered with research organizations such as the Electric Power Research Institute (EPRI), the Consortium for Energy Efficiency (CEE), the University of Central Florida, the University of South Florida, and other similar organizations to evaluate energy efficiency, energy storage, and alternative energy / innovative technologies. Costs spent for the program were $60,511 in 2020, $86,139 in 2021, $83,598 in 2022, $ 96,793 in 2023, and $ 87,645 in 2024.
- DEF participated in EPRI Program 170 (Customer Technologies). This EPRI research program provides valuable research data about new and improved technologies that could be used to develop new DEF EE/DSM programs. The scope and activities of EPRI P170 align with DEF's focus of integrating more energy efficient loads and implementing demand response to our grid. Participating in EPRI Program170 gives DEF access to workshops, training, white papers, technical reports, software tools, and opportunities for supplemental projects. Other deliverables include quarterly newsletters, reports on advanced appliances, and briefs on technologies like lighting, heat pumps and other energy efficient products. Project costs were $12,746 in 2020, $12,746 in 2021, $15,289 in 2022, $23,137 in 2023, and $26,099 in 2024.
- DEF participated in a project to do a field evaluation with EPRI and the Grid Modernization Lab Consortium (GMLC) of a utility-integrated demand-side management solution using open standards and open-source platforms. A consortium of National Labs, the GMLC has developed both the software and hardware, all based on open-source technologies, to leverage demand-side management of residential loads to provide grid resiliency using a Home Energy Management System (HEMS). DEF tested the cloud-based HEMS in 7 customer homes. Project costs were $42,682 in 2020, $30,252 in 2021 and $8,836 in 2022.

- DEF participated in a project with the University of Central Florida (UCF) to document the value of long-duration customer-side energy storage systems. This project used the technology at UCFs Microgrid Control Lab to directly test a long-duration energy storage system. Use cases investigated included study of battery performance during charging and discharging, documenting the effects of cycling on battery performance (battery degradation, efficiency, etc.), optimal operation of a battery energy storage system in a distribution system with high penetration of solar energy, control of behind-the-meter distributed energy resources to provide services including, peak capacity management, demand response (consuming or generating), frequency regulation, ramping capability, and voltage management. This technology could potentially lead to customer programs for energy storage systems. Project costs were $97,309 in 2020, $96,157 in 2021, $42,710 in 2022, and $622 in 2023.
- DEF launched a pilot that developed software, firmware and applications for a Smart Home Gateway to enhance customer energy efficiency and enable demand response. The Smart Home Gateway included processing and communications capabilities to perform on-site operations including receiving energy data from the customer's Advanced Metering Infrastructure (AMI) meter with communications using four radios and on-site processing. Enhanced capabilities included enabling customer appliance control, allowing automatic control of devices according to the customer's preference and enabling open-source utility demand response. This technology could lead to new programs for energy efficiency and demand response. Project costs were $41,072 in 2020, $75,031 in 2021, $38,711 in 2022, $76,628 in 2023, and $1,470 in 2024.
- DEF launched a pilot to determine the viability of using precision temperature measurement and analysis to identify issues with customer Heating, Ventilation and Air Conditioning (HVAC) systems, duct work, or building envelopes that could resolve high bill complaints. Precision temperature measurements are made at several points within the home. Analysis of the temperature data and rate of change of the temperature provided conclusions on what could be causing a customer's high energy use. This information could be provided to the customer to resolve a high bill complaint. This could also simplify DEF auditor's attic inspections requirements since the attic duct leaks could be detected in the analysis of the temperature data. Project costs were $18,905 in 2020.
- DEF participated in a project with the University of South Florida (USF) to leverage customer-sited solar PV and energy storage at the USF 5th Avenue Garage Microgrid. This project used data from the EPRI Solar Distributed PV (DPV) project for data collection to document customer solar resources. The system provides load smoothing, islanding, and

demand response. A publicly available dashboard that shows live data, project specific facts and the capability of downloading data for further study is available for the site at https://dashboards.epri.com/duke-usfsp-parking. Results of this research may be used for design of a potential cost-effective demand response program. Project costs were $968 in 2020, and $20,678 in 2021.

- DEF participated in the EPRI Energy Management Circuit Breaker (EMCB) Project. This project explored the potential for developing a program for customer circuit breakers that include communication, metering, and remote operation for potential applications including energy efficiency, demand response, and integration of distributed energy resources. EMCB hardware and software was installed, and operational data was collected from appliances in nine customer homes. This project also implemented an EMCB-EV (a self-contained electric vehicle charger). This data will be used to document the operation of these breakers and assess the technology for potential EE and DR programs. Project costs were $37,739 in 2020, $25,936 in 2021, $5,426 in 2022, and $599 in 2023.
- DEF participated in a project with EPRI to assess the demand response opportunities for new and existing variable capacity heat pump systems for potential future load management programs. DEF used manufacturer cloud communications to control existing variable-capacity heat pumps at volunteer participants homes. DR events were executed, and the performance of the variable-capacity heat pumps were analyzed. This pilot assessed the viability of cloud communications to provide triggering and impacts of DR events on variable capacity heat pumps. The pilot also investigated the impacts of variable capacity HVAC DR events on customer comfort. Project costs were $35,173 in 2020, and $28,112 in 2021.
- DEF participated in a project to gather robust data about residential customers that drive electric vehicles. The project examined what type of hardware the customer uses to charge their vehicle, where they do their charging (at home, work or public charging station, in/out of DEF service territory, etc.) and how much power and energy are consumed by EV charging. The project assessed the potential for programs to shift on-peak EV charging to off-peak times. Project costs were $95,462 in 2020, and $24,000 in 2021.
- DEF participated in a project for a study to evaluate the demand response capability of internet-connected residential batteries. Residential batteries potentially offer the ability to provide power reduction for demand response while eliminating any discomfort to the customer (as compared to residential appliance demand response). Certain battery manufacturers have developed technologies that allow for the collection of capacity and charge data, communication protocols for external aggregator software providers, and the ability to dispatch

stored energy to serve the needs of the customer or the grid. This project focused on the capabilities of a particular aggregator to collect data from multiple battery manufacturers, the feasibility of utilizing aggregation technology for dispatching demand response event commands, and the net impact of these events on shaping demand. This aggregation system enabled existing units that are already installed by residential customers in DEF territory to be used in this study. The results of this study could be used to develop a demand response program. Project costs were $41,200 in 2021, $37,437 in 2022, and $2,941 in 2023.

- DEF is participating in an ongoing project to evaluate the demand response capability of the Ford Lightning Electric Pickup Truck in a Vehicle-to-Grid (V2G) configuration. The pilot consists of lab testing of the vehicle, electric vehicle charger and home integration system. DEF is also testing the system in four employee volunteer DEF customer homes. This project is focused on the capabilities of the Ford Lightning EV to provide V2G demand response, Vehicle-to-Home backup power and EV charging control. These systems could be used as a part of DEF's Demand Response Program. Project costs were $29,497 in 2022, $150,783 in 2023, and $127,006 in 2024. DEF is participating in an ongoing project to evaluate the energy efficiency and demand response capability of an energy storing, ultra-efficient, commercial packaged air conditioner technology that combines dew-point-style sensible cooling with liquid desiccant dehumidification. This technology implements indirect evaporative cooling using a liquid desiccant. This desiccant can be recharged and stored in a tank for use later. This stored energy can be used to make the peak power consumption exceptionally low. DEF is piloting this technology at a volunteer customer site. The energy consumption of this technology will be documented. If the testing is successful, this technology could be included in future EE and DR programs. Project costs were $25,830 in 2023, and $7,845 in 2024.

c. Please identify each project DEF plans to pursue under this program for the 2025 through 2034 goals period. As part of this response, please describe each project's objective, and identify the projected costs. If no projects are planned, please explain why.

Response:
The following research and development projects are proposed to be investigated from 2025 to 2034:

- DEF will continue researching new and improved technologies for potential energy efficiency and demand response programs in 2025 to 2034. DEF will continue to partner with research organizations such as the Electric Power Research Institute (EPRI), the Consortium for Energy Efficiency (CEE), the University of Central Florida, the University of South Florida, and other similar organizations to evaluate energy efficiency, energy storage, and alternative energy / innovative technologies. Costs are expected to be $80,000 per year.
- DEF will continue to participate in EPRI Program 170 (Customer Technologies) in 2025 to 2034. This EPRI research program provides valuable research data about new and improved technologies that could be used to develop new DEF EE/DSM programs. The scope and activities of EPRI Program 170 align well with DEF's focus of integrating more energy efficient loads and implementing demand response to our grid. Participating in EPRI Program 170 give DEF the access to workshops, training, white papers, technical reports, software tools, and opportunities for supplemental projects. Other deliverables include quarterly newsletters, reports on advanced appliances, and briefs on technologies like lighting, heat pumps and other energy efficient products. Project costs are expected to be $26,056 in 2025 with some annual increases through 2034.
- DEF will continue the Advanced Indirect Evaporative Cooling Air Conditioning Project. This project will evaluate the energy efficiency and demand response capability of an energy storing, ultra—efficient, commercial packaged air conditioner technology that combines dew-point-style sensible cooling with liquid desiccant dehumidification. This technology implements indirect evaporative cooling using a liquid desiccant. This desiccant can be recharged and stored in a tank for use later. This stored energy can be used to make the peak power consumption extremely low. DEF is piloting this technology at a volunteer customer site. The energy consumption of this technology will be documented. If the testing is successful, this technology could be included in future EE and DR programs. The expected costs for 2025 is $100,000. The project will continue data collection and technology performance analysis through 2027 with annual cost of $35,000.
- DEF will continue the Vehicle to Grid (V2G) Pilot. This project will evaluate the demand response capability of the Ford Lightning Electric Pickup Truck in a V2G configuration. The pilot consists of lab testing of the vehicle, electric vehicle charger and home integration system. DEF will also test the system in four employee volunteer DEF customer homes. This project will focus on the capabilities of the Ford Lightning EV to provide V2G demand response, Vehicle-to-Home backup power and EV charging control. These systems could be a valuable future potential resource as a component of DEF's DR Portfolio. The costs

are expected to be $100,000 in 2025 and $35,000 per year through 2027.

- DEF will continue this project with the University of Central Florida (UCF) to document the value of long-duration customer-side energy storage systems. This project is using the technology at UCF's Microgrid Control Lab to directly test a long-duration energy storage system. Use cases to be investigated include study of battery performance during charging and discharging, documenting the effects of cycling on battery performance (battery degradation, efficiency, etc.), optimal operation of a battery energy storage system in a distribution system with high penetration of solar energy, control of behind-the-meter distributed energy storage resources to provide services including, peak capacity management, demand response (consuming or generating), frequency regulation, ramping capability and voltage management. Project costs are expected to be $10,000 in 2025.
- DEF will continue to evaluate the University of South Florida (USF) customer-sited solar PV and energy storage at the USF 5th Avenue Garage Microgrid. The system provides load smoothing, islanding, and demand response. A publicly available dashboard that shows live data, project specific facts and the capability of downloading data for further study is available for the site at https://dashboards.epri.com/duke-usfsp-parking. Results of this research may be used for design of a potential cost-effective DR program. The costs for this project are expected to be $5000 per year through 2026.
- Electric Vehicle Supply Equipment (EVSE) Monitoring and Control Platform Pilot: This project will develop and test a EVSE monitoring and control platform. This platform is comprised of hardware, firmware, and central management system software. It will enable DEF to remotely monitor and manage electric vehicle chargers. The platform will allow us to control the large loads associated with private and public EVSEs during peak demand periods. It will also monitor EVSE for functionality and increase the availability of operational EVSE through remote reset and reporting disabled equipment for repair. This project could enable new DSM and DR Programs. The costs for this project are expected to be $100,000 per year for 2025 through 2027.
- DEF will demonstrate an EMCB Smart Panel and Battery Energy Storage System (BESS) for Demand Response in a project that will utilize new smart panel and smart breaker technology. This project will test this technology's capability to provide customer demand response and resilience including battery energy storage demand response, demand response using smart breakers, variable EV charging demand response and integral microgrid interface device operation to isolate loads from the grid during an outage. The costs for this project are expected to be $100,000 in 2025 and $35,000 in 2026.
- DEF will implement a demonstration project to test the capabilities of an innovative technology that enables precise monitoring of electricity

consumption and demand at a highly detailed level, capturing data from every asset within a commercial or industrial site. The data will be continuously analyzed and delivered to the customer. By identifying patterns and peak usage times, the customer can develop targeted strategies to mitigate demand spikes or implement automated demand response programs backed by real data from their buildings. The real-time data provided by this technology could empower both DEF and its customers to engage in a collaborative approach to demand reduction. This technology could be used to develop EE and DR programs. The costs for this project are expected to be $100,000 in 2025, and $35,000 per year in 2026 and 2027.

DEF will continue to actively research new, innovative technologies that could be applicable to energy efficiency and demand response. Additional energy efficiency and demand response projects will be initiated as new equipment, technologies and techniques become available during the years between 2025 and 2034.

6. Please refer to page 3, paragraph 5 of DEF's petition. For each of the seven existing programs with proposed modifications, please detail and provide an explanation for the proposed modifications.

Response:
The modifications include the following:

- All program participation tables, projected program savings tables, cost-effectiveness tables were updated to reflect the 2025-2034 data in the Utility's DSM goals approved by Order No. PSC-2024-0429-FOF-EG.
- The addition of a Multi-Family New Builder Construction program; and
- The addition of Smart Thermostats as a measure and an increase of targeted homes to 5,775 annually for the Neighborhood Energy Saver program.

7. Please refer to DEF's petition, Attachment A, Benefits & Cost Analysis – All Programs. Please provide the cost-effectiveness test results for each program in Microsoft Excel format with formulas intact.

Response:
Please see Exhibit C, DEF's Response to Staff's DR1-7 attached hereto.

8. Please refer to DEF's petition, Attachment B. Please provide a redline version of DEF's proposed program participation standards that identifies any changes as compared to the Utility's current program participation standards. As part of this response, please provide an explanation for any changes for each program.

Response:
Please see Exhibit D, DEF's Response to Staff's DR1-8 attached hereto. The changes included the following:

- The addition of the Multi-Family Builder Construction program throughout the document.
- The addition of Smart Thermostats for the Neighborhood Energy Saver program.
- Updating of SEER and HSPF to meet industry standards and updating of incentive amounts for Residential Incentive program.
- The addition of Higher Efficiency Heat Pump and High Efficiency Water Heating program components to Residential Incentive program.
- A modification of language regarding access in the Residential Load Management program; and
- The addition of customer engagement opportunities for the Smart $aver program.

DUKE ENERGY FLORDA PROGRAM COST SUMMARY COMPARISON FOR GOALS AND PLAN

Recommended DSM Plan

DEF DSM PROGRAMS	2025 PROJECTED		2026 PROJECTED		2027 PROJECTED		2028 PROJECTED		2029 PROJECTED	
	Goals	Plan	Goals	Plan	Goals	Plan	Goals	Plan	Goals	Plan
Home Energy Check	4,732,797	4,732,797	4,594,876	4,594,876	4,548,927	4,548,927	4,503,438	4,503,438	4,458,403	4,458,403
RES Incentive	7,705,236	6,571,578	7,994,623	6,679,620	8,285,161	6,807,121	8,560,022	6,958,742	8,963,936	7,119,211
Multi-Family New Builder Construction		1,022,116		1,106,350		1,182,288		1,242,923		1,353,760
LIWAP	428,769	428,769	428,769	428,769	431,626	431,626	431,626	431,626	431,626	431,626
Neighborhood Energy Saver	4,548,105	5,031,172	4,548,105	5,031,172	4,748,042	5,252,540	4,748,042	5,252,540	4,748,042	5,252,540
Load Mgmt (Res&Com)	38,649,703	52,991,622	39,116,016	62,346,280	39,596,068	69,383,190	40,090,370	71,095,307	40,599,447	49,384,162
Total Residential	56,064,610	70,778,055	56,682,388	80,187,067	57,609,824	87,605,692	58,333,498	89,484,576	59,201,454	67,999,702
Business Energy Check	623,019	629,419	623,019	629,419	623,019	629,419	623,019	629,419	623,019	629,419
Smart $aver Business	1,810,793	1,930,148	1,931,513	2,061,936	2,070,225	2,208,959	2,226,848	2,378,634	2,402,627	2,603,815
Smart $aver Custom	606,385	606,385	616,125	616,125	626,108	626,108	636,341	636,341	646,829	646,829
Interruptible	52,762,592	54,449,254	52,918,583	54,759,067	53,075,005	54,918,951	53,231,876	55,079,282	53,389,210	55,240,078
Curtailable	3,078,010	3,142,977	3,077,038	3,205,365	3,124,145	3,272,079	3,123,179	3,271,114	3,170,513	3,338,054
Stand-by Generation	6,235,864	7,364,348	6,381,800	7,717,401	6,614,566	8,007,187	6,835,308	8,284,948	7,057,199	8,563,859
Total Commercial	65,116,664	68,122,532	65,548,078	68,989,313	66,133,069	69,662,704	66,676,570	70,279,739	67,289,397	71,022,054
Technology Dev	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000
Qualified Facilities	879,245	879,245	901,226	901,226	923,757	923,757	946,851	946,851	970,522	970,522
Conservation Admin	2,430,275	2,430,275	2,491,032	2,491,032	2,553,308	2,553,308	2,617,141	2,617,141	2,682,569	2,682,569
TOTAL	125,290,794	143,010,107	126,422,724	153,368,638	128,019,958	161,545,460	129,374,059	164,128,306	130,943,942	143,474,848

2030 PROJECTED		2031 PROJECTED		2032 PROJECTED		2033 PROJECTED		2034 PROJECTED	
Goals	Plan	Goals	Plan	Goals	Plan	Goals	Plan	Goals	Plan
4,413,819	4,413,819	4,369,681	4,369,681	4,325,984	4,325,984	4,282,724	4,282,724	4,239,897	4,239,897
7,964,509	5,911,825	7,890,377	5,616,234	7,831,954	5,335,422	7,788,457	5,068,651	7,759,138	4,815,219
	1,456,301		1,559,477		1,663,269		1,767,661		1,872,639
443,215	443,215	443,225	443,225	443,235	443,235	418,544	418,544	418,554	418,554
4,748,231	5,252,748	4,748,420	5,252,957	4,748,610	5,253,165	4,748,799	5,253,373	4,748,988	5,253,581
41,123,842	49,566,446	41,664,119	49,748,731	42,220,856	49,931,015	42,794,653	50,113,300	43,386,130	50,295,585
58,693,616	67,044,356	59,115,822	66,990,305	59,570,640	66,952,091	60,033,178	66,904,254	60,552,707	66,895,475
623,019	629,419	623,019	629,419	623,019	629,419	623,019	629,419	623,019	629,419
2,243,682	2,424,471	1,995,249	2,161,102	1,787,796	1,939,797	1,613,258	1,752,465	1,470,564	1,626,992
657,580	657,580	668,599	668,599	679,894	679,894	691,472	691,472	703,339	703,339
53,547,025	55,401,354	53,705,339	55,563,129	53,864,169	55,725,421	54,023,535	55,888,248	54,183,455	56,051,630
3,169,556	3,337,098	3,169,736	3,337,278	3,169,920	3,337,462	3,170,109	3,337,650	3,170,302	3,337,844
7,324,128	8,897,311	7,585,416	9,225,123	7,892,596	9,608,329	8,194,090	9,985,850	8,497,390	10,365,177
67,564,990	71,347,234	67,747,358	71,584,651	68,017,395	71,920,323	68,315,482	72,285,104	68,648,068	72,714,400
800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000
994,785	994,785	1,019,655	1,019,655	1,045,146	1,045,146	1,071,275	1,071,275	1,098,057	1,098,057
2,749,633	2,749,633	2,818,374	2,818,374	2,888,834	2,888,834	2,961,054	2,961,054	3,035,081	3,035,081
130,803,025	142,936,008	131,501,209	143,212,984	132,322,014	143,606,393	133,180,989	144,021,687	134,133,913	144,543,012

	RESIDENTIAL SUMMARY values at generator										
	sMW										
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Residential Incentive Program	3.3	3.3	3.4	3.5	3.5	3.0	2.9	2.7	2.6	2.5	30.7
Multi Family New Builder Constructio	0.9	1.1	1.2	1.3	1.5	1.8	2.0	2.2	2.4	2.6	17.0
Home Energy Check	3.8	3.8	3.7	3.7	3.7	3.6	3.6	3.6	3.5	3.5	36.5
Low Income Weatherization	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	7.4
Neighborhood Energy Saver	8.4	8.4	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	87.0
Energy Wise	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	36.9
Total	20.9	21.0	21.5	21.7	21.9	21.6	21.7	21.7	21.7	21.7	215.5
	wMW										
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Residential Incentive Program	7.1	7.4	7.8	8.1	8.5	6.7	6.4	6.1	5.8	5.5	69.2
Multi Family New Builder Constructio	1.8	2.0	2.3	2.5	2.9	3.2	3.6	4.0	4.3	4.7	31.3
Home Energy Check	7.1	7.0	6.9	6.8	6.8	6.7	6.6	6.6	6.5	6.4	67.4
Low Income Weatherization	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	4.7
Neighborhood Energy Saver	10.1	10.1	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	104.7
Energy Wise	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	53.2
Total	31.9	32.3	33.3	33.8	34.5	33.0	33.0	33.0	32.9	32.9	330.6
	GWh										
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Residential Incentive Program	8.0	8.2	8.3	8.6	8.8	7.4	7.0	6.7	6.3	6.0	75.2
Multi Family New Builder Constructio	3.4	3.9	4.4	4.9	5.7	6.6	7.4	8.3	9.1	10.0	63.6
Home Energy Check	16.5	16.0	15.9	15.7	15.6	15.4	15.2	15.1	14.9	14.8	155.1
Low Income Weatherization	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	16.4
Neighborhood Energy Saver	20.9	20.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	216.9
Energy Wise	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	50.4	50.7	52.2	52.7	53.6	52.9	53.2	53.6	53.8	54.2	527.3
	PARTICIPATION										
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Residential Incentive Program	10,704	10,910	11,146	11,416	11,709	9,605	9,125	8,668	8,235	7,823	99,343
Multi Family New Builder Constructio	999	1,160	1,300	1,400	1,600	1,780	1,961	2,143	2,326	2,510	17,179
Home Energy Check	20,000	19,800	19,602	19,406	19,212	19,020	18,830	18,641	18,455	18,270	191,236
Low Income Weatherization**	256	256	256	256	256	256	256	256	256	256	2,563
Neighborhood Energy Saver**	5,775	5,775	6,064	6,064	6,064	6,064	6,064	6,064	6,064	6,064	60,060
Energy Wise	3,091	3,091	3,091	3,091	3,091	3,091	3,091	3,091	3,091	3,091	30,910
Total	40,826	40,993	41,460	41,633	41,932	39,816	39,326	38,864	38,427	38,014	401,290

The participation represent the actual YTD audit completions only. The wkw, skw, and kwh impacts are based on the number of kits provided to custom
****Participation = homes***

	COMMERCIAL SUMMARY values at generator										
	sMW										
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**Total**
Smart $aver (f/k/a Better Business)	3.2	3.5	3.8	4.2	4.7	3.9	3.2	2.7	2.3	2.0	33.6
Business Energy Check	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Smart $aver Custom	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5.3
Demand Response (IS, CS, STG)	3.7	3.2	4.7	4.2	4.7	4.7	4.7	5.3	5.3	5.3	45.7
Total	7.4	7.2	9.1	9.0	10.0	9.2	8.5	8.5	8.1	7.8	84.9
	wMW										
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**Total**
Smart $aver (f/k/a Better Business)	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	3.3
Business Energy Check	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Smart $aver Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Demand Response (IS, CS, STG)	3.3	2.7	4.1	3.6	4.1	4.0	4.0	4.4	4.4	4.4	39.0
Total	3.6	3.1	4.5	4.0	4.5	4.4	4.4	4.8	4.7	4.7	42.5
	GWh										
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**Total**
Smart $aver (f/k/a Better Business)	4.9	5.3	5.8	6.3	6.8	6.3	5.5	4.8	4.3	3.8	53.7
Business Energy Check	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.1
Smart $aver Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Demand Response (IS, CS, STG)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	5.1	5.5	6.0	6.5	7.0	6.6	5.7	5.0	4.5	4.0	55.9
	PARTICIPATION										
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**Total**
Smart $aver (f/k/a Better Business)	250	250	250	250	250	250	250	250	250	250	2,500
Business Energy Check*	400	400	400	400	400	400	400	400	400	400	4,000
Smart $aver Custom	200	190	181	172	163	0	0	0	0	0	906
Demand Response (IS, CS, STG)	12	11	17	16	17	19	19	21	21	21	173
Total	862	851	848	838	830	669	669	671	671	671	7,579

The participation represent the actual YTD audit completions only. The wkw, skw, and kwh impacts are based on the number of kits provided to customers.

PROGRAM: Residential Incentive Program RIP

Rate Impact Measure (RIM) Test

	BENEFITS				COSTS				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	INCENTIVE PAYMENTS	REVENUE LOSSES	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	401	1,236	0	1,637	1,290	5,282	1,211	7,782	-6,145
2026	804	2,579	0	3,382	1,314	5,365	2,461	9,141	-5,759
2027	1,204	4,037	0	5,241	1,343	5,464	3,715	10,522	-5,281
2028	1,706	5,624	0	7,330	1,378	5,580	5,135	12,094	-4,764
2029	2,107	7,346	8,733	18,185	1,413	5,707	6,581	13,700	4,485
2030	2,391	8,838	10,238	21,466	1,188	4,723	7,813	13,725	7,741
2031	2,641	10,333	11,665	24,638	1,129	4,487	9,049	14,665	9,973
2032	2,877	11,832	11,742	26,451	1,072	4,263	10,325	15,661	10,790
2033	3,302	13,335	13,016	29,653	1,019	4,050	11,606	16,674	12,979
2034	3,767	14,845	16,618	35,230	968	3,847	12,782	17,597	17,633
2035	3,992	15,216	16,772	35,980	0	0	12,949	12,949	23,031
2036	4,280	15,597	16,929	36,805	0	0	13,309	13,309	23,496
2037	4,464	15,986	17,089	37,539	0	0	13,766	13,766	23,773
2038	4,682	16,386	17,252	38,320	0	0	13,980	13,980	24,340
2039	4,946	16,796	17,418	39,160	0	0	14,319	14,319	24,840
2040	4,996	17,209	17,580	39,785	0	0	14,555	14,555	25,230
2041	4,867	16,718	16,825	38,411	0	0	14,496	14,496	23,914
2042	5,008	16,155	16,018	37,181	0	0	14,505	14,505	22,676
2043	5,020	15,504	15,146	35,670	0	0	14,387	14,387	21,283
2044	5,023	14,765	14,213	34,001	0	0	14,249	14,249	19,752
2045	4,840	13,384	12,696	30,921	0	0	13,591	13,591	17,329
2046	4,657	12,152	11,361	28,170	0	0	12,944	12,944	15,225
2047	4,451	10,868	10,013	25,331	0	0	12,248	12,248	13,083
2048	4,222	9,527	8,652	22,401	0	0	11,503	11,503	10,898
2049	3,966	8,124	7,271	19,361	0	0	10,699	10,699	8,662
2050	3,762	6,868	6,059	16,689	0	0	10,048	10,048	6,641
2051	3,692	6,459	5,617	15,769	0	0	9,765	9,765	6,003
2052	3,623	6,056	5,190	14,869	0	0	9,489	9,489	5,380
2053	3,560	5,664	4,785	14,009	0	0	9,231	9,231	4,778
2054	3,498	5,276	4,394	13,168	0	0	8,979	8,979	4,188
2055	3,235	4,826	3,962	12,023	0	0	8,221	8,221	3,802
2056	2,946	4,349	3,519	10,815	0	0	7,414	7,414	3,401
2057	2,630	3,841	3,064	9,534	0	0	6,552	6,552	2,982
2058	2,280	3,294	2,591	8,165	0	0	5,624	5,624	2,541
2059	1,896	2,712	2,102	6,710	0	0	4,632	4,632	2,079
2060	1,531	2,165	1,655	5,351	0	0	3,701	3,701	1,649
2061	1,158	1,621	1,221	4,001	0	0	2,774	2,774	1,227
2062	780	1,079	801	2,660	0	0	1,848	1,848	812
2063	394	539	395	1,327	0	0	924	924	403
2064	0	0	0	0	0	0	0	0	0
NOMINAL	125,597	349,141	332,600	807,337	12,114	48,769	361,380	422,263	385,073
NPV	43,044	137,766	129,836	310,646	9,335	37,658	130,024	177,018	133,628

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 1.755

PROGRAM: **Residential Incentive Program** **RIP**

Total Resource Cost (TRC) Test

	BENEFITS				COSTS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	401	1,236	0	1,637	1,290	9,886	11,176	-9,538
2026	804	2,579	0	3,382	1,314	10,001	11,315	-7,933
2027	1,204	4,037	0	5,241	1,343	10,144	11,487	-6,246
2028	1,706	5,624	0	7,330	1,378	10,321	11,699	-4,369
2029	2,107	7,346	8,733	18,185	1,413	10,514	11,927	6,258
2030	2,391	8,838	10,238	21,466	1,188	8,773	9,961	11,506
2031	2,641	10,333	11,665	24,638	1,129	8,334	9,463	15,175
2032	2,877	11,832	11,742	26,451	1,072	7,917	8,990	17,461
2033	3,302	13,335	13,016	29,653	1,019	7,521	8,540	21,113
2034	3,767	14,845	16,618	35,230	968	7,145	8,113	27,116
2035	3,992	15,216	16,772	35,980	0	0	0	35,980
2036	4,280	15,597	16,929	36,805	0	0	0	36,805
2037	4,464	15,986	17,089	37,539	0	0	0	37,539
2038	4,682	16,386	17,252	38,320	0	0	0	38,320
2039	4,946	16,796	17,418	39,160	0	0	0	39,160
2040	4,996	17,209	17,580	39,785	0	0	0	39,785
2041	4,867	16,718	16,825	38,411	0	0	0	38,411
2042	5,008	16,155	16,018	37,181	0	0	0	37,181
2043	5,020	15,504	15,146	35,670	0	0	0	35,670
2044	5,023	14,765	14,213	34,001	0	0	0	34,001
2045	4,840	13,384	12,696	30,921	0	0	0	30,921
2046	4,657	12,152	11,361	28,170	0	0	0	28,170
2047	4,451	10,868	10,013	25,331	0	0	0	25,331
2048	4,222	9,527	8,652	22,401	0	0	0	22,401
2049	3,966	8,124	7,271	19,361	0	0	0	19,361
2050	3,762	6,868	6,059	16,689	0	0	0	16,689
2051	3,692	6,459	5,617	15,769	0	0	0	15,769
2052	3,623	6,056	5,190	14,869	0	0	0	14,869
2053	3,560	5,664	4,785	14,009	0	0	0	14,009
2054	3,498	5,276	4,394	13,168	0	0	0	13,168
2055	3,235	4,826	3,962	12,023	0	0	0	12,023
2056	2,946	4,349	3,519	10,815	0	0	0	10,815
2057	2,630	3,841	3,064	9,534	0	0	0	9,534
2058	2,280	3,294	2,591	8,165	0	0	0	8,165
2059	1,896	2,712	2,102	6,710	0	0	0	6,710
2060	1,531	2,165	1,655	5,351	0	0	0	5,351
2061	1,158	1,621	1,221	4,001	0	0	0	4,001
2062	780	1,079	801	2,660	0	0	0	2,660
2063	394	539	395	1,327	0	0	0	1,327
2064	0	0	0	0	0	0	0	0
NOMINAL	125,597	349,141	332,600	807,337	12,114	90,557	102,671	704,666
NPV	43,044	137,766	129,836	310,646	9,335	69,947	79,282	231,364

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 3.918

PROGRAM: **Residential Incentive Program** **RIP**

Participant Test

	BENEFITS				COSTS		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	SAVINGS IN PARTICIPANT'S BILL	INCENTIVE PAYMENTS	OTHER PARTICIPANT'S BENEFITS	**TOTAL BENEFITS**	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	1,211	5,282	0	6,493	9,886	9,886	-3,393
2026	2,461	5,365	0	7,827	10,001	10,001	-2,174
2027	3,715	5,464	0	9,179	10,144	10,144	-965
2028	5,135	5,580	0	10,715	10,321	10,321	395
2029	6,581	5,707	0	12,288	10,514	10,514	1,773
2030	7,813	4,723	0	12,537	8,773	8,773	3,764
2031	9,049	4,487	0	13,536	8,334	8,334	5,202
2032	10,325	4,263	0	14,588	7,917	7,917	6,671
2033	11,606	4,050	0	15,655	7,521	7,521	8,134
2034	12,782	3,847	0	16,629	7,145	7,145	9,484
2035	12,949	0	0	12,949	0	0	12,949
2036	13,309	0	0	13,309	0	0	13,309
2037	13,766	0	0	13,766	0	0	13,766
2038	13,980	0	0	13,980	0	0	13,980
2039	14,319	0	0	14,319	0	0	14,319
2040	14,555	0	0	14,555	0	0	14,555
2041	14,496	0	0	14,496	0	0	14,496
2042	14,505	0	0	14,505	0	0	14,505
2043	14,387	0	0	14,387	0	0	14,387
2044	14,249	0	0	14,249	0	0	14,249
2045	13,591	0	0	13,591	0	0	13,591
2046	12,944	0	0	12,944	0	0	12,944
2047	12,248	0	0	12,248	0	0	12,248
2048	11,503	0	0	11,503	0	0	11,503
2049	10,699	0	0	10,699	0	0	10,699
2050	10,048	0	0	10,048	0	0	10,048
2051	9,765	0	0	9,765	0	0	9,765
2052	9,489	0	0	9,489	0	0	9,489
2053	9,231	0	0	9,231	0	0	9,231
2054	8,979	0	0	8,979	0	0	8,979
2055	8,221	0	0	8,221	0	0	8,221
2056	7,414	0	0	7,414	0	0	7,414
2057	6,552	0	0	6,552	0	0	6,552
2058	5,624	0	0	5,624	0	0	5,624
2059	4,632	0	0	4,632	0	0	4,632
2060	3,701	0	0	3,701	0	0	3,701
2061	2,774	0	0	2,774	0	0	2,774
2062	1,848	0	0	1,848	0	0	1,848
2063	924	0	0	924	0	0	924
2064	0	0	0	0	0	0	0
NOMINAL	361,380	48,769	0	410,149	90,557	90,557	319,593
NPV	130,024	37,658	0	167,683	69,947	69,947	97,736

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 2.397

PROGRAM: New Builder Construction-MF MFNBC

Rate Impact Measure (RIM) Test

	BENEFITS				COSTS				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	INCENTIVE PAYMENTS	REVENUE LOSSES	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	168	268	0	436	542	481	508	1,531	-1,094
2026	361	593	0	955	552	555	1,108	2,214	-1,259
2027	575	974	0	1,549	562	620	1,774	2,957	-1,407
2028	855	1,406	0	2,260	573	670	2,573	3,816	-1,556
2029	1,123	1,922	2,286	5,331	584	770	3,508	4,862	469
2030	1,403	2,525	2,926	6,854	595	862	4,585	6,041	812
2031	1,704	3,220	3,636	8,561	606	953	5,843	7,403	1,158
2032	2,039	4,013	3,984	10,035	618	1,046	7,319	8,982	1,053
2033	2,560	4,910	4,794	12,264	629	1,138	9,003	10,771	1,493
2034	3,186	5,918	6,627	15,732	641	1,232	10,817	12,690	3,042
2035	3,376	6,066	6,689	16,131	0	0	10,958	10,958	5,173
2036	3,620	6,218	6,751	16,589	0	0	11,263	11,263	5,326
2037	3,776	6,373	6,815	16,964	0	0	11,650	11,650	5,314
2038	3,960	6,532	6,880	17,373	0	0	11,831	11,831	5,542
2039	4,184	6,696	6,946	17,826	0	0	12,118	12,118	5,708
2040	4,233	6,863	7,014	18,110	0	0	12,337	12,337	5,773
2041	4,241	6,963	7,011	18,215	0	0	12,638	12,638	5,577
2042	4,493	7,056	6,999	18,549	0	0	13,018	13,018	5,530
2043	4,646	7,145	6,984	18,775	0	0	13,321	13,321	5,453
2044	4,804	7,234	6,967	19,005	0	0	13,633	13,633	5,372
2045	4,727	6,989	6,633	18,348	0	0	13,279	13,279	5,069
2046	4,604	6,681	6,250	17,535	0	0	12,801	12,801	4,733
2047	4,429	6,309	5,816	16,554	0	0	12,192	12,192	4,362
2048	4,198	5,866	5,331	15,396	0	0	11,441	11,441	3,955
2049	3,866	5,297	4,745	13,908	0	0	10,432	10,432	3,476
2050	3,423	4,591	4,054	12,068	0	0	9,145	9,145	2,923
2051	2,869	3,818	3,323	10,009	0	0	7,587	7,587	2,422
2052	2,181	2,889	2,479	7,549	0	0	5,712	5,712	1,837
2053	1,350	1,795	1,518	4,663	0	0	3,499	3,499	1,164
2054	360	525	437	1,323	0	0	925	925	398
2055	350	506	415	1,271	0	0	890	890	381
2056	327	467	378	1,172	0	0	823	823	350
2057	292	413	330	1,035	0	0	728	728	307
2058	255	356	280	891	0	0	629	629	263
2059	214	296	230	740	0	0	523	523	217
2060	173	237	181	590	0	0	418	418	172
2061	131	177	133	441	0	0	313	313	128
2062	88	118	88	294	0	0	209	209	85
2063	44	59	43	146	0	0	104	104	42
2064	0	0	0	0	0	0	0	0	0
NOMINAL	89,188	140,286	135,975	365,449	5,901	8,326	261,459	275,686	89,763
NPV	32,285	53,011	51,360	136,656	4,418	5,953	97,886	108,256	28,399

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 1.262

PROGRAM: **New Builder Construction-MF** **MFNBC**

Total Resource Cost (TRC) Test

	BENEFITS				COSTS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	168	268	0	436	542	1,281	1,823	-1,386
2026	361	593	0	955	552	1,483	2,035	-1,080
2027	575	974	0	1,549	562	1,667	2,229	-680
2028	855	1,406	0	2,260	573	1,814	2,387	-127
2029	1,123	1,922	2,286	5,331	584	2,110	2,693	2,637
2030	1,403	2,525	2,926	6,854	595	2,388	2,982	3,871
2031	1,704	3,220	3,636	8,561	606	2,667	3,273	5,288
2032	2,039	4,013	3,984	10,035	618	2,946	3,564	6,471
2033	2,560	4,910	4,794	12,264	629	3,227	3,856	8,408
2034	3,186	5,918	6,627	15,732	641	3,508	4,149	11,582
2035	3,376	6,066	6,689	16,131	0	0	0	16,131
2036	3,620	6,218	6,751	16,589	0	0	0	16,589
2037	3,776	6,373	6,815	16,964	0	0	0	16,964
2038	3,960	6,532	6,880	17,373	0	0	0	17,373
2039	4,184	6,696	6,946	17,826	0	0	0	17,826
2040	4,233	6,863	7,014	18,110	0	0	0	18,110
2041	4,241	6,963	7,011	18,215	0	0	0	18,215
2042	4,493	7,056	6,999	18,549	0	0	0	18,549
2043	4,646	7,145	6,984	18,775	0	0	0	18,775
2044	4,804	7,234	6,967	19,005	0	0	0	19,005
2045	4,727	6,989	6,633	18,348	0	0	0	18,348
2046	4,604	6,681	6,250	17,535	0	0	0	17,535
2047	4,429	6,309	5,816	16,554	0	0	0	16,554
2048	4,198	5,866	5,331	15,396	0	0	0	15,396
2049	3,866	5,297	4,745	13,908	0	0	0	13,908
2050	3,423	4,591	4,054	12,068	0	0	0	12,068
2051	2,869	3,818	3,323	10,009	0	0	0	10,009
2052	2,181	2,889	2,479	7,549	0	0	0	7,549
2053	1,350	1,795	1,518	4,663	0	0	0	4,663
2054	360	525	437	1,323	0	0	0	1,323
2055	350	506	415	1,271	0	0	0	1,271
2056	327	467	378	1,172	0	0	0	1,172
2057	292	413	330	1,035	0	0	0	1,035
2058	255	356	280	891	0	0	0	891
2059	214	296	230	740	0	0	0	740
2060	173	237	181	590	0	0	0	590
2061	131	177	133	441	0	0	0	441
2062	88	118	88	294	0	0	0	294
2063	44	59	43	146	0	0	0	146
2064	0	0	0	0	0	0	0	0
NOMINAL	89,188	140,286	135,975	365,449	5,901	23,091	28,992	336,457
NPV	32,285	53,011	51,360	136,656	4,418	16,441	20,859	115,797

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 6.551

PROGRAM: **New Builder Construction-MF** **MFNBC**

Participant Test

	BENEFITS				COSTS		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	SAVINGS IN PARTICIPANT'S BILL	INCENTIVE PAYMENTS	OTHER PARTICIPANT'S BENEFITS	**TOTAL BENEFITS**	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	508	481	0	989	1,281	1,281	-292
2026	1,108	555	0	1,662	1,483	1,483	179
2027	1,774	620	0	2,394	1,667	1,667	727
2028	2,573	670	0	3,243	1,814	1,814	1,429
2029	3,508	770	0	4,278	2,110	2,110	2,169
2030	4,585	862	0	5,447	2,388	2,388	3,059
2031	5,843	953	0	6,796	2,667	2,667	4,130
2032	7,319	1,046	0	8,365	2,946	2,946	5,418
2033	9,003	1,138	0	10,142	3,227	3,227	6,915
2034	10,817	1,232	0	12,048	3,508	3,508	8,540
2035	10,958	0	0	10,958	0	0	10,958
2036	11,263	0	0	11,263	0	0	11,263
2037	11,650	0	0	11,650	0	0	11,650
2038	11,831	0	0	11,831	0	0	11,831
2039	12,118	0	0	12,118	0	0	12,118
2040	12,337	0	0	12,337	0	0	12,337
2041	12,638	0	0	12,638	0	0	12,638
2042	13,018	0	0	13,018	0	0	13,018
2043	13,321	0	0	13,321	0	0	13,321
2044	13,633	0	0	13,633	0	0	13,633
2045	13,279	0	0	13,279	0	0	13,279
2046	12,801	0	0	12,801	0	0	12,801
2047	12,192	0	0	12,192	0	0	12,192
2048	11,441	0	0	11,441	0	0	11,441
2049	10,432	0	0	10,432	0	0	10,432
2050	9,145	0	0	9,145	0	0	9,145
2051	7,587	0	0	7,587	0	0	7,587
2052	5,712	0	0	5,712	0	0	5,712
2053	3,499	0	0	3,499	0	0	3,499
2054	925	0	0	925	0	0	925
2055	890	0	0	890	0	0	890
2056	823	0	0	823	0	0	823
2057	728	0	0	728	0	0	728
2058	629	0	0	629	0	0	629
2059	523	0	0	523	0	0	523
2060	418	0	0	418	0	0	418
2061	313	0	0	313	0	0	313
2062	209	0	0	209	0	0	209
2063	104	0	0	104	0	0	104
2064	0	0	0	0	0	0	0
NOMINAL	261,459	8,326	0	269,785	23,091	23,091	246,693
NPV	97,886	5,953	0	103,839	16,441	16,441	87,398

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 6.316

PROGRAM: Neighborhood Energy Saver NES

Rate Impact Measure (RIM) Test

	BENEFITS				COSTS				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	INCENTIVE PAYMENTS	REVENUE LOSSES	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	1,055	1,983	0	3,038	923	4,108	3,186	8,218	-5,179
2026	2,094	4,065	0	6,159	923	4,108	6,417	11,448	-5,290
2027	3,152	6,347	0	9,499	965	4,287	9,730	14,983	-5,483
2028	4,362	8,586	0	12,948	965	4,287	13,137	18,390	-5,441
2029	5,284	10,933	12,993	29,209	965	4,287	16,516	21,768	7,441
2030	6,072	13,374	15,488	34,933	965	4,287	19,850	25,103	9,830
2031	6,811	15,930	17,978	40,720	965	4,288	23,349	28,602	12,117
2032	7,533	18,597	18,450	44,579	965	4,288	27,043	32,297	12,283
2033	8,789	21,386	20,868	51,044	965	4,288	30,909	36,163	14,881
2034	10,209	24,304	27,198	61,711	965	4,288	34,657	39,910	21,801
2035	10,540	24,483	26,978	62,001	0	0	34,207	34,207	27,794
2036	10,978	24,573	26,665	62,216	0	0	34,155	34,155	28,062
2037	11,104	24,640	26,332	62,076	0	0	34,259	34,259	27,817
2038	11,384	24,892	26,199	62,475	0	0	34,007	34,007	28,468
2039	11,750	25,141	26,063	62,954	0	0	34,031	34,031	28,922
2040	11,616	25,394	25,933	62,942	0	0	33,854	33,854	29,088
2041	11,386	25,644	25,799	62,828	0	0	33,928	33,928	28,900
2042	11,824	25,900	25,672	63,396	0	0	34,259	34,259	29,137
2043	11,980	26,154	25,543	63,676	0	0	34,352	34,352	29,325
2044	12,131	26,404	25,410	63,946	0	0	34,430	34,430	29,516
2045	12,057	25,607	24,284	61,949	0	0	33,870	33,870	28,079
2046	12,000	24,864	23,238	60,101	0	0	33,367	33,367	26,734
2047	11,899	23,999	22,106	58,004	0	0	32,754	32,754	25,250
2048	11,775	23,076	20,951	55,802	0	0	32,091	32,091	23,711
2049	11,627	22,091	19,771	53,489	0	0	31,373	31,373	22,116
2050	11,477	21,062	18,580	51,119	0	0	30,659	30,659	20,459
2051	11,300	19,967	17,363	48,630	0	0	29,888	29,888	18,742
2052	11,095	18,805	16,118	46,018	0	0	29,056	29,056	16,962
2053	10,861	17,572	14,845	43,278	0	0	28,161	28,161	15,117
2054	10,596	16,265	13,544	40,405	0	0	27,201	27,201	13,205
2055	9,923	15,069	12,370	37,362	0	0	25,221	25,221	12,141
2056	9,188	13,802	11,169	34,160	0	0	23,122	23,122	11,038
2057	8,330	12,379	9,875	30,585	0	0	20,755	20,755	9,830
2058	7,399	10,876	8,553	26,827	0	0	18,251	18,251	8,577
2059	6,388	9,290	7,202	22,880	0	0	15,602	15,602	7,278
2060	5,295	7,618	5,822	18,735	0	0	12,805	12,805	5,930
2061	4,115	5,856	4,412	14,383	0	0	9,852	9,852	4,531
2062	2,843	4,002	2,972	9,816	0	0	6,738	6,738	3,078
2063	1,473	2,051	1,502	5,025	0	0	3,456	3,456	1,569
2064	0	0	0	0	0	0	0	0	0
NOMINAL	339,695	672,979	628,246	1,640,921	9,569	42,516	970,502	1,022,587	618,333
NPV	112,046	236,815	221,489	570,350	7,219	32,077	337,625	376,921	193,429

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 1.513

PROGRAM: Neighborhood Energy Saver NES

Total Resource Cost (TRC) Test

	BENEFITS				COSTS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	1,055	1,983	0	3,038	923	11,008	11,931	-8,893
2026	2,094	4,065	0	6,159	923	11,008	11,931	-5,773
2027	3,152	6,347	0	9,499	965	11,526	12,491	-2,992
2028	4,362	8,586	0	12,948	965	11,526	12,491	457
2029	5,284	10,933	12,993	29,209	965	11,526	12,491	16,718
2030	6,072	13,374	15,488	34,933	965	11,526	12,491	22,442
2031	6,811	15,930	17,978	40,720	965	11,526	12,492	28,228
2032	7,533	18,597	18,450	44,579	965	11,527	12,492	32,087
2033	8,789	21,386	20,868	51,044	965	11,527	12,492	38,551
2034	10,209	24,304	27,198	61,711	965	11,527	12,493	49,219
2035	10,540	24,483	26,978	62,001	0	0	0	62,001
2036	10,978	24,573	26,665	62,216	0	0	0	62,216
2037	11,104	24,640	26,332	62,076	0	0	0	62,076
2038	11,384	24,892	26,199	62,475	0	0	0	62,475
2039	11,750	25,141	26,063	62,954	0	0	0	62,954
2040	11,616	25,394	25,933	62,942	0	0	0	62,942
2041	11,386	25,644	25,799	62,828	0	0	0	62,828
2042	11,824	25,900	25,672	63,396	0	0	0	63,396
2043	11,980	26,154	25,543	63,676	0	0	0	63,676
2044	12,131	26,404	25,410	63,946	0	0	0	63,946
2045	12,057	25,607	24,284	61,949	0	0	0	61,949
2046	12,000	24,864	23,238	60,101	0	0	0	60,101
2047	11,899	23,999	22,106	58,004	0	0	0	58,004
2048	11,775	23,076	20,951	55,802	0	0	0	55,802
2049	11,627	22,091	19,771	53,489	0	0	0	53,489
2050	11,477	21,062	18,580	51,119	0	0	0	51,119
2051	11,300	19,967	17,363	48,630	0	0	0	48,630
2052	11,095	18,805	16,118	46,018	0	0	0	46,018
2053	10,861	17,572	14,845	43,278	0	0	0	43,278
2054	10,596	16,265	13,544	40,405	0	0	0	40,405
2055	9,923	15,069	12,370	37,362	0	0	0	37,362
2056	9,188	13,802	11,169	34,160	0	0	0	34,160
2057	8,330	12,379	9,875	30,585	0	0	0	30,585
2058	7,399	10,876	8,553	26,827	0	0	0	26,827
2059	6,388	9,290	7,202	22,880	0	0	0	22,880
2060	5,295	7,618	5,822	18,735	0	0	0	18,735
2061	4,115	5,856	4,412	14,383	0	0	0	14,383
2062	2,843	4,002	2,972	9,816	0	0	0	9,816
2063	1,473	2,051	1,502	5,025	0	0	0	5,025
2064	0	0	0	0	0	0	0	0
NOMINAL	339,695	672,979	628,246	1,640,921	9,569	114,227	123,796	1,517,124
NPV	112,046	236,815	221,489	570,350	7,219	86,165	93,385	476,965

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 6.108

PROGRAM: Neighborhood Energy Saver **NES**

Participant Test

	BENEFITS				COSTS		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	SAVINGS IN PARTICIPANT'S BILL	INCENTIVE PAYMENTS	OTHER PARTICIPANT'S BENEFITS	**TOTAL BENEFITS**	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	3,186	4,108	0	7,294	11,008	11,008	-3,714
2026	6,417	4,108	0	10,525	11,008	11,008	-483
2027	9,730	4,287	0	14,017	11,526	11,526	2,491
2028	13,137	4,287	0	17,424	11,526	11,526	5,898
2029	16,516	4,287	0	20,803	11,526	11,526	9,277
2030	19,850	4,287	0	24,138	11,526	11,526	12,612
2031	23,349	4,288	0	27,637	11,526	11,526	16,111
2032	27,043	4,288	0	31,331	11,527	11,527	19,805
2033	30,909	4,288	0	35,197	11,527	11,527	23,671
2034	34,657	4,288	0	38,945	11,527	11,527	27,418
2035	34,207	0	0	34,207	0	0	34,207
2036	34,155	0	0	34,155	0	0	34,155
2037	34,259	0	0	34,259	0	0	34,259
2038	34,007	0	0	34,007	0	0	34,007
2039	34,031	0	0	34,031	0	0	34,031
2040	33,854	0	0	33,854	0	0	33,854
2041	33,928	0	0	33,928	0	0	33,928
2042	34,259	0	0	34,259	0	0	34,259
2043	34,352	0	0	34,352	0	0	34,352
2044	34,430	0	0	34,430	0	0	34,430
2045	33,870	0	0	33,870	0	0	33,870
2046	33,367	0	0	33,367	0	0	33,367
2047	32,754	0	0	32,754	0	0	32,754
2048	32,091	0	0	32,091	0	0	32,091
2049	31,373	0	0	31,373	0	0	31,373
2050	30,659	0	0	30,659	0	0	30,659
2051	29,888	0	0	29,888	0	0	29,888
2052	29,056	0	0	29,056	0	0	29,056
2053	28,161	0	0	28,161	0	0	28,161
2054	27,201	0	0	27,201	0	0	27,201
2055	25,221	0	0	25,221	0	0	25,221
2056	23,122	0	0	23,122	0	0	23,122
2057	20,755	0	0	20,755	0	0	20,755
2058	18,251	0	0	18,251	0	0	18,251
2059	15,602	0	0	15,602	0	0	15,602
2060	12,805	0	0	12,805	0	0	12,805
2061	9,852	0	0	9,852	0	0	9,852
2062	6,738	0	0	6,738	0	0	6,738
2063	3,456	0	0	3,456	0	0	3,456
2064	0	0	0	0	0	0	0
NOMINAL	970,502	42,516	0	1,013,018	114,227	114,227	898,791
NPV	337,625	32,077	0	369,702	86,165	86,165	283,536

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 4.291

PROGRAM: Low Income Weatherization Assistance **LIWAP**

Rate Impact Measure (RIM) Test

	BENEFITS				COSTS				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	INCENTIVE PAYMENTS	REVENUE LOSSES	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	82	130	0	213	162	267	248	677	-464
2026	163	267	0	431	162	267	500	929	-498
2027	243	412	0	655	163	268	749	1,181	-526
2028	337	558	0	895	163	268	1,015	1,446	-551
2029	409	711	845	1,966	163	268	1,278	1,710	256
2030	472	871	1,008	2,352	164	279	1,542	1,985	367
2031	531	1,039	1,172	2,741	164	279	1,818	2,261	480
2032	589	1,214	1,203	3,006	164	279	2,112	2,555	451
2033	684	1,382	1,347	3,413	155	263	2,405	2,823	590
2034	792	1,557	1,741	4,090	155	263	2,688	3,107	984
2035	828	1,583	1,743	4,154	0	0	2,686	2,686	1,468
2036	876	1,610	1,745	4,231	0	0	2,723	2,723	1,507
2037	900	1,636	1,747	4,282	0	0	2,776	2,776	1,506
2038	934	1,669	1,755	4,358	0	0	2,789	2,789	1,569
2039	976	1,703	1,764	4,443	0	0	2,826	2,826	1,617
2040	976	1,737	1,773	4,486	0	0	2,844	2,844	1,642
2041	968	1,772	1,781	4,522	0	0	2,884	2,884	1,637
2042	1,017	1,808	1,791	4,615	0	0	2,946	2,946	1,670
2043	1,042	1,845	1,800	4,687	0	0	2,988	2,988	1,699
2044	1,068	1,882	1,810	4,760	0	0	3,031	3,031	1,728
2045	1,098	1,907	1,807	4,811	0	0	3,083	3,083	1,728
2046	1,128	1,932	1,804	4,863	0	0	3,136	3,136	1,728
2047	1,158	1,956	1,801	4,915	0	0	3,187	3,187	1,727
2048	1,189	1,981	1,797	4,967	0	0	3,240	3,240	1,727
2049	1,220	2,005	1,794	5,019	0	0	3,293	3,293	1,726
2050	1,255	2,032	1,791	5,078	0	0	3,353	3,353	1,725
2051	1,291	2,058	1,789	5,138	0	0	3,414	3,414	1,723
2052	1,329	2,085	1,786	5,200	0	0	3,479	3,479	1,721
2053	1,377	2,137	1,805	5,319	0	0	3,569	3,569	1,749
2054	1,426	2,190	1,824	5,440	0	0	3,661	3,661	1,779
2055	1,330	2,021	1,659	5,009	0	0	3,381	3,381	1,629
2056	1,225	1,841	1,490	4,556	0	0	3,083	3,083	1,473
2057	1,111	1,651	1,317	4,079	0	0	2,767	2,767	1,312
2058	986	1,451	1,141	3,578	0	0	2,433	2,433	1,145
2059	852	1,239	961	3,051	0	0	2,080	2,080	971
2060	706	1,016	777	2,499	0	0	1,707	1,707	791
2061	549	781	588	1,918	0	0	1,314	1,314	605
2062	379	534	396	1,309	0	0	898	898	411
2063	196	274	200	670	0	0	461	461	209
2064	0	0	0	0	0	0	0	0	0
NOMINAL	33,690	56,476	51,552	141,719	1,618	2,701	94,390	98,709	43,010
NPV	9,961	17,486	16,199	43,646	1,226	2,041	29,574	32,841	10,805

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 1.329

PROGRAM: Low Income Weatherization Assistance **LIWAP**

Total Resource Cost (TRC) Test

	BENEFITS				COSTS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	82	130	0	213	162	577	739	-526
2026	163	267	0	431	162	577	739	-308
2027	243	412	0	655	163	581	744	-89
2028	337	558	0	895	163	581	744	151
2029	409	711	845	1,966	163	581	744	1,221
2030	472	871	1,008	2,352	164	591	756	1,596
2031	531	1,039	1,172	2,741	164	591	756	1,986
2032	589	1,214	1,203	3,006	164	591	756	2,250
2033	684	1,382	1,347	3,413	155	529	685	2,728
2034	792	1,557	1,741	4,090	155	529	685	3,405
2035	828	1,583	1,743	4,154	0	0	0	4,154
2036	876	1,610	1,745	4,231	0	0	0	4,231
2037	900	1,636	1,747	4,282	0	0	0	4,282
2038	934	1,669	1,755	4,358	0	0	0	4,358
2039	976	1,703	1,764	4,443	0	0	0	4,443
2040	976	1,737	1,773	4,486	0	0	0	4,486
2041	968	1,772	1,781	4,522	0	0	0	4,522
2042	1,017	1,808	1,791	4,615	0	0	0	4,615
2043	1,042	1,845	1,800	4,687	0	0	0	4,687
2044	1,068	1,882	1,810	4,760	0	0	0	4,760
2045	1,098	1,907	1,807	4,811	0	0	0	4,811
2046	1,128	1,932	1,804	4,863	0	0	0	4,863
2047	1,158	1,956	1,801	4,915	0	0	0	4,915
2048	1,189	1,981	1,797	4,967	0	0	0	4,967
2049	1,220	2,005	1,794	5,019	0	0	0	5,019
2050	1,255	2,032	1,791	5,078	0	0	0	5,078
2051	1,291	2,058	1,789	5,138	0	0	0	5,138
2052	1,329	2,085	1,786	5,200	0	0	0	5,200
2053	1,377	2,137	1,805	5,319	0	0	0	5,319
2054	1,426	2,190	1,824	5,440	0	0	0	5,440
2055	1,330	2,021	1,659	5,009	0	0	0	5,009
2056	1,225	1,841	1,490	4,556	0	0	0	4,556
2057	1,111	1,651	1,317	4,079	0	0	0	4,079
2058	986	1,451	1,141	3,578	0	0	0	3,578
2059	852	1,239	961	3,051	0	0	0	3,051
2060	706	1,016	777	2,499	0	0	0	2,499
2061	549	781	588	1,918	0	0	0	1,918
2062	379	534	396	1,309	0	0	0	1,309
2063	196	274	200	670	0	0	0	670
2064	0	0	0	0	0	0	0	0
NOMINAL	33,690	56,476	51,552	141,719	1,618	5,728	7,346	134,372
NPV	9,961	17,486	16,199	43,646	1,226	4,346	5,573	38,073

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 7.832

PROGRAM: Low Income Weatherization Assistance **LIWAP**

Participant Test

	BENEFITS				COSTS		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	SAVINGS IN PARTICIPANT'S BILL $(000)	INCENTIVE PAYMENTS $(000)	OTHER PARTICIPANT'S BENEFITS $(000)	**TOTAL BENEFITS** $(000)	PARTICIPANT'S COST $(000)	**TOTAL COSTS** $(000)	**NET BENEFITS** $(000)
2025	248	267	0	515	577	577	-61
2026	500	267	0	767	577	577	190
2027	749	268	0	1,017	581	581	437
2028	1,015	268	0	1,283	581	581	702
2029	1,278	268	0	1,546	581	581	966
2030	1,542	279	0	1,821	591	591	1,229
2031	1,818	279	0	2,097	591	591	1,506
2032	2,112	279	0	2,391	591	591	1,800
2033	2,405	263	0	2,668	529	529	2,139
2034	2,688	263	0	2,951	529	529	2,422
2035	2,686	0	0	2,686	0	0	2,686
2036	2,723	0	0	2,723	0	0	2,723
2037	2,776	0	0	2,776	0	0	2,776
2038	2,789	0	0	2,789	0	0	2,789
2039	2,826	0	0	2,826	0	0	2,826
2040	2,844	0	0	2,844	0	0	2,844
2041	2,884	0	0	2,884	0	0	2,884
2042	2,946	0	0	2,946	0	0	2,946
2043	2,988	0	0	2,988	0	0	2,988
2044	3,031	0	0	3,031	0	0	3,031
2045	3,083	0	0	3,083	0	0	3,083
2046	3,136	0	0	3,136	0	0	3,136
2047	3,187	0	0	3,187	0	0	3,187
2048	3,240	0	0	3,240	0	0	3,240
2049	3,293	0	0	3,293	0	0	3,293
2050	3,353	0	0	3,353	0	0	3,353
2051	3,414	0	0	3,414	0	0	3,414
2052	3,479	0	0	3,479	0	0	3,479
2053	3,569	0	0	3,569	0	0	3,569
2054	3,661	0	0	3,661	0	0	3,661
2055	3,381	0	0	3,381	0	0	3,381
2056	3,083	0	0	3,083	0	0	3,083
2057	2,767	0	0	2,767	0	0	2,767
2058	2,433	0	0	2,433	0	0	2,433
2059	2,080	0	0	2,080	0	0	2,080
2060	1,707	0	0	1,707	0	0	1,707
2061	1,314	0	0	1,314	0	0	1,314
2062	898	0	0	898	0	0	898
2063	461	0	0	461	0	0	461
2064	0	0	0	0	0	0	0
NOMINAL	94,390	2,701	0	97,091	5,728	5,728	91,363
NPV	29,574	2,041	0	31,615	4,346	4,346	27,268

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 7.274

PROGRAM: Smart $aver Business **BB**

Rate Impact Measure (RIM) Test

	BENEFITS				COSTS				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	INCENTIVE PAYMENTS	REVENUE LOSSES	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	212	522	0	734	1,234	696	569	2,500	-1,766
2026	438	1,120	0	1,558	1,338	724	1,188	3,250	-1,692
2027	678	1,803	0	2,481	1,455	754	1,847	4,056	-1,575
2028	993	2,583	0	3,576	1,585	793	2,619	4,998	-1,422
2029	1,268	3,491	4,145	8,904	1,729	875	3,433	6,037	2,867
2030	1,492	4,302	4,977	10,770	1,604	821	4,169	6,594	4,176
2031	1,668	5,020	5,660	12,348	1,393	768	4,830	6,991	5,357
2032	1,818	5,667	5,617	13,102	1,220	720	5,459	7,399	5,703
2033	2,073	6,259	6,101	14,432	1,078	675	6,040	7,792	6,640
2034	2,341	6,828	7,634	16,803	958	669	6,503	8,130	8,673
2035	2,390	6,563	7,225	16,179	0	0	6,259	6,259	9,920
2036	2,457	6,239	6,763	15,459	0	0	6,117	6,117	9,341
2037	2,442	5,846	6,241	14,530	0	0	5,998	5,998	8,532
2038	2,425	5,375	5,652	13,453	0	0	5,685	5,685	7,768
2039	2,405	4,817	4,989	12,211	0	0	5,407	5,407	6,803
2040	2,153	4,150	4,234	10,537	0	0	4,806	4,806	5,732
2041	1,893	3,559	3,577	9,029	0	0	4,280	4,280	4,749
2042	1,731	3,013	2,983	7,727	0	0	3,781	3,781	3,947
2043	1,504	2,487	2,427	6,418	0	0	3,218	3,218	3,200
2044	1,251	1,963	1,888	5,102	0	0	2,622	2,622	2,480
2045	1,017	1,591	1,508	4,116	0	0	2,091	2,091	2,024
2046	790	1,237	1,155	3,182	0	0	1,593	1,593	1,589
2047	567	899	827	2,293	0	0	1,122	1,122	1,171
2048	339	559	507	1,405	0	0	656	656	749
2049	113	230	205	547	0	0	211	211	336
2050	103	215	189	507	0	0	189	189	318
2051	90	197	172	459	0	0	163	163	296
2052	76	177	152	404	0	0	134	134	270
2053	62	157	133	352	0	0	107	107	244
2054	47	138	115	300	0	0	81	81	219
2055	32	118	97	247	0	0	54	54	192
2056	17	98	79	194	0	0	29	29	166
2057	2	78	62	142	0	0	3	3	139
2058	2	80	63	144	0	0	3	3	141
2059	1	42	32	75	0	0	2	2	73
2060	1	42	32	75	0	0	2	2	74
2061	1	43	32	76	0	0	1	1	74
2062	1	43	32	76	0	0	1	1	75
2063	0	44	32	76	0	0	0	0	76
2064	0	0	0	0	0	0	0	0	0
NOMINAL	36,891	87,592	85,539	210,022	13,594	7,494	91,270	112,359	97,663
NPV	17,970	45,087	42,394	105,451	10,411	5,683	46,134	62,228	43,223

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 1.695

PROGRAM: Smart $aver Business **BB**

Total Resource Cost (TRC) Test

	BENEFITS				COSTS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	212	522	0	734	1,234	4,243	5,477	-4,743
2026	438	1,120	0	1,558	1,338	4,536	5,874	-4,316
2027	678	1,803	0	2,481	1,455	4,862	6,317	-3,836
2028	993	2,583	0	3,576	1,585	5,237	6,823	-3,247
2029	1,268	3,491	4,145	8,904	1,729	5,713	7,442	1,462
2030	1,492	4,302	4,977	10,770	1,604	5,869	7,473	3,298
2031	1,668	5,020	5,660	12,348	1,393	5,381	6,774	5,574
2032	1,818	5,667	5,617	13,102	1,220	4,939	6,159	6,943
2033	2,073	6,259	6,101	14,432	1,078	4,538	5,615	8,817
2034	2,341	6,828	7,634	16,803	958	4,225	5,183	11,620
2035	2,390	6,563	7,225	16,179	0	0	0	16,179
2036	2,457	6,239	6,763	15,459	0	0	0	15,459
2037	2,442	5,846	6,241	14,530	0	0	0	14,530
2038	2,425	5,375	5,652	13,453	0	0	0	13,453
2039	2,405	4,817	4,989	12,211	0	0	0	12,211
2040	2,153	4,150	4,234	10,537	0	0	0	10,537
2041	1,893	3,559	3,577	9,029	0	0	0	9,029
2042	1,731	3,013	2,983	7,727	0	0	0	7,727
2043	1,504	2,487	2,427	6,418	0	0	0	6,418
2044	1,251	1,963	1,888	5,102	0	0	0	5,102
2045	1,017	1,591	1,508	4,116	0	0	0	4,116
2046	790	1,237	1,155	3,182	0	0	0	3,182
2047	567	899	827	2,293	0	0	0	2,293
2048	339	559	507	1,405	0	0	0	1,405
2049	113	230	205	547	0	0	0	547
2050	103	215	189	507	0	0	0	507
2051	90	197	172	459	0	0	0	459
2052	76	177	152	404	0	0	0	404
2053	62	157	133	352	0	0	0	352
2054	47	138	115	300	0	0	0	300
2055	32	118	97	247	0	0	0	247
2056	17	98	79	194	0	0	0	194
2057	2	78	62	142	0	0	0	142
2058	2	80	63	144	0	0	0	144
2059	1	42	32	75	0	0	0	75
2060	1	42	32	75	0	0	0	75
2061	1	43	32	76	0	0	0	76
2062	1	43	32	76	0	0	0	76
2063	0	44	32	76	0	0	0	76
2064	0	0	0	0	0	0	0	0
NOMINAL	36,891	87,592	85,539	210,022	13,594	49,541	63,136	146,886
NPV	17,970	45,087	42,394	105,451	10,411	37,384	47,795	57,656

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 2.206

PROGRAM: Smart $aver Business **BB**

Participant Test

	BENEFITS				COSTS		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	SAVINGS IN PARTICIPANT'S BILL $(000)	INCENTIVE PAYMENTS $(000)	OTHER PARTICIPANT'S BENEFITS $(000)	**TOTAL BENEFITS** $(000)	PARTICIPANT'S COST $(000)	**TOTAL COSTS** $(000)	**NET BENEFITS** $(000)
2025	569	696	0	1,266	4,243	4,243	-2,977
2026	1,188	724	0	1,912	4,536	4,536	-2,624
2027	1,847	754	0	2,601	4,862	4,862	-2,261
2028	2,619	793	0	3,412	5,237	5,237	-1,825
2029	3,433	875	0	4,307	5,713	5,713	-1,405
2030	4,169	821	0	4,990	5,869	5,869	-879
2031	4,830	768	0	5,599	5,381	5,381	217
2032	5,459	720	0	6,178	4,939	4,939	1,240
2033	6,040	675	0	6,714	4,538	4,538	2,177
2034	6,503	669	0	7,171	4,225	4,225	2,947
2035	6,259	0	0	6,259	0	0	6,259
2036	6,117	0	0	6,117	0	0	6,117
2037	5,998	0	0	5,998	0	0	5,998
2038	5,685	0	0	5,685	0	0	5,685
2039	5,407	0	0	5,407	0	0	5,407
2040	4,806	0	0	4,806	0	0	4,806
2041	4,280	0	0	4,280	0	0	4,280
2042	3,781	0	0	3,781	0	0	3,781
2043	3,218	0	0	3,218	0	0	3,218
2044	2,622	0	0	2,622	0	0	2,622
2045	2,091	0	0	2,091	0	0	2,091
2046	1,593	0	0	1,593	0	0	1,593
2047	1,122	0	0	1,122	0	0	1,122
2048	656	0	0	656	0	0	656
2049	211	0	0	211	0	0	211
2050	189	0	0	189	0	0	189
2051	163	0	0	163	0	0	163
2052	134	0	0	134	0	0	134
2053	107	0	0	107	0	0	107
2054	81	0	0	81	0	0	81
2055	54	0	0	54	0	0	54
2056	29	0	0	29	0	0	29
2057	3	0	0	3	0	0	3
2058	3	0	0	3	0	0	3
2059	2	0	0	2	0	0	2
2060	2	0	0	2	0	0	2
2061	1	0	0	1	0	0	1
2062	1	0	0	1	0	0	1
2063	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0
NOMINAL	91,270	7,494	0	98,765	49,541	49,541	49,223
NPV	46,134	5,683	0	51,817	37,384	37,384	14,433

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 1.386

PROGRAM: Residential Load Management **EWH**

Rate Impact Measure (RIM) Test

	BENEFITS				COSTS				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	INCENTIVE PAYMENTS	REVENUE LOSSES	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	0	0	0	0	739	182	0	922	-922
2026	0	0	0	0	1,023	365	0	1,388	-1,388
2027	0	0	0	0	1,321	547	0	1,868	-1,868
2028	0	0	0	0	1,633	729	0	2,362	-2,362
2029	0	0	5,338	5,338	1,960	911	0	2,871	2,467
2030	0	0	6,398	6,398	2,302	1,094	0	3,396	3,003
2031	0	0	7,456	7,456	2,660	1,276	0	3,936	3,520
2032	0	0	7,678	7,678	3,034	1,458	0	4,493	3,186
2033	0	0	8,708	8,708	3,426	1,641	0	5,066	3,642
2034	0	0	11,375	11,375	3,835	1,823	0	5,658	5,717
2035	0	0	11,480	11,480	3,316	1,823	0	5,139	6,341
2036	0	0	11,588	11,588	3,399	1,823	0	5,222	6,366
2037	0	0	11,697	11,697	3,484	1,823	0	5,307	6,390
2038	0	0	11,809	11,809	3,571	1,823	0	5,394	6,415
2039	0	0	11,922	11,922	3,661	1,823	0	5,483	6,439
2040	0	0	12,038	12,038	3,752	1,823	0	5,575	6,463
2041	0	0	12,156	12,156	3,846	1,823	0	5,669	6,487
2042	0	0	12,276	12,276	3,942	1,823	0	5,765	6,511
2043	0	0	12,398	12,398	4,041	1,823	0	5,863	6,534
2044	0	0	12,522	12,522	4,142	1,823	0	5,964	6,558
2045	0	0	12,649	12,649	4,245	1,823	0	6,068	6,581
2046	0	0	12,778	12,778	4,351	1,823	0	6,174	6,604
2047	0	0	12,909	12,909	4,460	1,823	0	6,283	6,626
2048	0	0	13,043	13,043	4,572	1,823	0	6,394	6,649
2049	0	0	13,179	13,179	4,686	1,823	0	6,509	6,671
2050	0	0	11,985	11,985	4,323	1,641	0	5,963	6,022
2051	0	0	10,765	10,765	3,938	1,458	0	5,397	5,368
2052	0	0	9,518	9,518	3,532	1,276	0	4,808	4,709
2053	0	0	8,243	8,243	3,103	1,094	0	4,197	4,046
2054	0	0	6,941	6,941	2,651	911	0	3,562	3,379
2055	0	0	5,611	5,611	2,174	729	0	2,903	2,708
2056	0	0	4,252	4,252	1,671	547	0	2,218	2,034
2057	0	0	2,864	2,864	1,142	365	0	1,506	1,358
2058	0	0	1,447	1,447	585	182	0	767	680
2059	0	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0	0
NOMINAL	0	0	293,024	293,024	104,521	45,571	0	150,093	142,931
NPV	0	0	101,654	101,654	38,456	17,428	0	55,884	45,770

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 1.819

PROGRAM: Residential Load Management **EWH**

Total Resource Cost (TRC) Test

	BENEFITS				COSTS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	0	0	0	0	739	0	739	-739
2026	0	0	0	0	1,023	0	1,023	-1,023
2027	0	0	0	0	1,321	0	1,321	-1,321
2028	0	0	0	0	1,633	0	1,633	-1,633
2029	0	0	5,338	5,338	1,960	0	1,960	3,378
2030	0	0	6,398	6,398	2,302	0	2,302	4,096
2031	0	0	7,456	7,456	2,660	0	2,660	4,796
2032	0	0	7,678	7,678	3,034	0	3,034	4,644
2033	0	0	8,708	8,708	3,426	0	3,426	5,282
2034	0	0	11,375	11,375	3,835	0	3,835	7,539
2035	0	0	11,480	11,480	3,316	0	3,316	8,164
2036	0	0	11,588	11,588	3,399	0	3,399	8,188
2037	0	0	11,697	11,697	3,484	0	3,484	8,213
2038	0	0	11,809	11,809	3,571	0	3,571	8,237
2039	0	0	11,922	11,922	3,661	0	3,661	8,262
2040	0	0	12,038	12,038	3,752	0	3,752	8,286
2041	0	0	12,156	12,156	3,846	0	3,846	8,310
2042	0	0	12,276	12,276	3,942	0	3,942	8,334
2043	0	0	12,398	12,398	4,041	0	4,041	8,357
2044	0	0	12,522	12,522	4,142	0	4,142	8,380
2045	0	0	12,649	12,649	4,245	0	4,245	8,404
2046	0	0	12,778	12,778	4,351	0	4,351	8,427
2047	0	0	12,909	12,909	4,460	0	4,460	8,449
2048	0	0	13,043	13,043	4,572	0	4,572	8,471
2049	0	0	13,179	13,179	4,686	0	4,686	8,493
2050	0	0	11,985	11,985	4,323	0	4,323	7,663
2051	0	0	10,765	10,765	3,938	0	3,938	6,826
2052	0	0	9,518	9,518	3,532	0	3,532	5,985
2053	0	0	8,243	8,243	3,103	0	3,103	5,140
2054	0	0	6,941	6,941	2,651	0	2,651	4,290
2055	0	0	5,611	5,611	2,174	0	2,174	3,437
2056	0	0	4,252	4,252	1,671	0	1,671	2,581
2057	0	0	2,864	2,864	1,142	0	1,142	1,723
2058	0	0	1,447	1,447	585	0	585	862
2059	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0
NOMINAL	0	0	293,024	293,024	104,521	0	104,521	188,503
NPV	0	0	101,654	101,654	38,456	0	38,456	63,198

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 2.643

PROGRAM: Residential Load Management **EWH**

Participant Test

	BENEFITS				COSTS		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	SAVINGS IN PARTICIPANT'S BILL $(000)	INCENTIVE PAYMENTS $(000)	OTHER PARTICIPANT'S BENEFITS $(000)	**TOTAL BENEFITS** $(000)	PARTICIPANT'S COST $(000)	**TOTAL COSTS** $(000)	**NET BENEFITS** $(000)
2025	0	182	0	182	0	0	182
2026	0	365	0	365	0	0	365
2027	0	547	0	547	0	0	547
2028	0	729	0	729	0	0	729
2029	0	911	0	911	0	0	911
2030	0	1,094	0	1,094	0	0	1,094
2031	0	1,276	0	1,276	0	0	1,276
2032	0	1,458	0	1,458	0	0	1,458
2033	0	1,641	0	1,641	0	0	1,641
2034	0	1,823	0	1,823	0	0	1,823
2035	0	1,823	0	1,823	0	0	1,823
2036	0	1,823	0	1,823	0	0	1,823
2037	0	1,823	0	1,823	0	0	1,823
2038	0	1,823	0	1,823	0	0	1,823
2039	0	1,823	0	1,823	0	0	1,823
2040	0	1,823	0	1,823	0	0	1,823
2041	0	1,823	0	1,823	0	0	1,823
2042	0	1,823	0	1,823	0	0	1,823
2043	0	1,823	0	1,823	0	0	1,823
2044	0	1,823	0	1,823	0	0	1,823
2045	0	1,823	0	1,823	0	0	1,823
2046	0	1,823	0	1,823	0	0	1,823
2047	0	1,823	0	1,823	0	0	1,823
2048	0	1,823	0	1,823	0	0	1,823
2049	0	1,823	0	1,823	0	0	1,823
2050	0	1,641	0	1,641	0	0	1,641
2051	0	1,458	0	1,458	0	0	1,458
2052	0	1,276	0	1,276	0	0	1,276
2053	0	1,094	0	1,094	0	0	1,094
2054	0	911	0	911	0	0	911
2055	0	729	0	729	0	0	729
2056	0	547	0	547	0	0	547
2057	0	365	0	365	0	0	365
2058	0	182	0	182	0	0	182
2059	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0
NOMINAL	0	45,571	0	45,571	0	0	45,571
NPV	0	17,428	0	17,428	0	0	17,428

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 9999

PROGRAM: **Interruptible Service DR** **IS**

Rate Impact Measure (RIM) Test

	BENEFITS				COSTS				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	INCENTIVE PAYMENTS	REVENUE LOSSES	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	0	0	0	0	37	150	0	187	-187
2026	0	0	0	0	46	301	0	346	-346
2027	0	0	0	0	55	451	0	506	-506
2028	0	0	0	0	65	601	0	667	-667
2029	0	0	1,115	1,115	76	752	0	827	288
2030	0	0	1,337	1,337	87	902	0	989	348
2031	0	0	1,558	1,558	98	1,053	0	1,151	407
2032	0	0	1,604	1,604	110	1,203	0	1,313	291
2033	0	0	1,819	1,819	122	1,353	0	1,476	344
2034	0	0	2,376	2,376	135	1,504	0	1,639	737
2035	0	0	2,398	2,398	102	1,504	0	1,606	793
2036	0	0	2,421	2,421	105	1,504	0	1,608	812
2037	0	0	2,444	2,444	107	1,504	0	1,611	833
2038	0	0	2,467	2,467	110	1,504	0	1,614	853
2039	0	0	2,491	2,491	113	1,504	0	1,616	874
2040	0	0	2,515	2,515	116	1,504	0	1,619	896
2041	0	0	2,539	2,539	118	1,504	0	1,622	917
2042	0	0	2,564	2,564	121	1,504	0	1,625	939
2043	0	0	2,590	2,590	124	1,504	0	1,628	962
2044	0	0	2,616	2,616	128	1,504	0	1,631	985
2045	0	0	2,642	2,642	131	1,504	0	1,634	1,008
2046	0	0	2,669	2,669	134	1,504	0	1,638	1,032
2047	0	0	2,697	2,697	137	1,504	0	1,641	1,056
2048	0	0	2,725	2,725	141	1,504	0	1,644	1,080
2049	0	0	2,753	2,753	144	1,504	0	1,648	1,105
2050	0	0	2,504	2,504	133	1,353	0	1,486	1,017
2051	0	0	2,249	2,249	121	1,203	0	1,324	925
2052	0	0	1,988	1,988	109	1,053	0	1,161	827
2053	0	0	1,722	1,722	96	902	0	998	724
2054	0	0	1,450	1,450	82	752	0	833	617
2055	0	0	1,172	1,172	67	601	0	668	504
2056	0	0	888	888	51	451	0	503	386
2057	0	0	598	598	35	301	0	336	263
2058	0	0	302	302	18	150	0	168	134
2059	0	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0	0
NOMINAL	0	0	61,214	61,214	3,374	37,590	0	40,964	20,250
NPV	0	0	21,236	21,236	1,300	14,376	0	15,676	5,560

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 1.355

PROGRAM: **Interruptible Service DR** **IS**

Total Resource Cost (TRC) Test

	BENEFITS				COSTS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	0	0	0	0	37	0	37	-37
2026	0	0	0	0	46	0	46	-46
2027	0	0	0	0	55	0	55	-55
2028	0	0	0	0	65	0	65	-65
2029	0	0	1,115	1,115	76	0	76	1,039
2030	0	0	1,337	1,337	87	0	87	1,250
2031	0	0	1,558	1,558	98	0	98	1,460
2032	0	0	1,604	1,604	110	0	110	1,494
2033	0	0	1,819	1,819	122	0	122	1,697
2034	0	0	2,376	2,376	135	0	135	2,241
2035	0	0	2,398	2,398	102	0	102	2,296
2036	0	0	2,421	2,421	105	0	105	2,316
2037	0	0	2,444	2,444	107	0	107	2,336
2038	0	0	2,467	2,467	110	0	110	2,357
2039	0	0	2,491	2,491	113	0	113	2,378
2040	0	0	2,515	2,515	116	0	116	2,399
2041	0	0	2,539	2,539	118	0	118	2,421
2042	0	0	2,564	2,564	121	0	121	2,443
2043	0	0	2,590	2,590	124	0	124	2,466
2044	0	0	2,616	2,616	128	0	128	2,488
2045	0	0	2,642	2,642	131	0	131	2,512
2046	0	0	2,669	2,669	134	0	134	2,535
2047	0	0	2,697	2,697	137	0	137	2,559
2048	0	0	2,725	2,725	141	0	141	2,584
2049	0	0	2,753	2,753	144	0	144	2,609
2050	0	0	2,504	2,504	133	0	133	2,371
2051	0	0	2,249	2,249	121	0	121	2,128
2052	0	0	1,988	1,988	109	0	109	1,880
2053	0	0	1,722	1,722	96	0	96	1,627
2054	0	0	1,450	1,450	82	0	82	1,368
2055	0	0	1,172	1,172	67	0	67	1,105
2056	0	0	888	888	51	0	51	837
2057	0	0	598	598	35	0	35	563
2058	0	0	302	302	18	0	18	284
2059	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0
NOMINAL	0	0	61,214	61,214	3,374	0	3,374	57,840
NPV	0	0	21,236	21,236	1,300	0	1,300	19,936

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 16.332

PROGRAM: **Interruptible Service DR** **IS**

Participant Test

	BENEFITS				COSTS		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	SAVINGS IN PARTICIPANT'S BILL	INCENTIVE PAYMENTS	OTHER PARTICIPANT'S BENEFITS	**TOTAL BENEFITS**	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	0	150	0	150	0	0	150
2026	0	301	0	301	0	0	301
2027	0	451	0	451	0	0	451
2028	0	601	0	601	0	0	601
2029	0	752	0	752	0	0	752
2030	0	902	0	902	0	0	902
2031	0	1,053	0	1,053	0	0	1,053
2032	0	1,203	0	1,203	0	0	1,203
2033	0	1,353	0	1,353	0	0	1,353
2034	0	1,504	0	1,504	0	0	1,504
2035	0	1,504	0	1,504	0	0	1,504
2036	0	1,504	0	1,504	0	0	1,504
2037	0	1,504	0	1,504	0	0	1,504
2038	0	1,504	0	1,504	0	0	1,504
2039	0	1,504	0	1,504	0	0	1,504
2040	0	1,504	0	1,504	0	0	1,504
2041	0	1,504	0	1,504	0	0	1,504
2042	0	1,504	0	1,504	0	0	1,504
2043	0	1,504	0	1,504	0	0	1,504
2044	0	1,504	0	1,504	0	0	1,504
2045	0	1,504	0	1,504	0	0	1,504
2046	0	1,504	0	1,504	0	0	1,504
2047	0	1,504	0	1,504	0	0	1,504
2048	0	1,504	0	1,504	0	0	1,504
2049	0	1,504	0	1,504	0	0	1,504
2050	0	1,353	0	1,353	0	0	1,353
2051	0	1,203	0	1,203	0	0	1,203
2052	0	1,053	0	1,053	0	0	1,053
2053	0	902	0	902	0	0	902
2054	0	752	0	752	0	0	752
2055	0	601	0	601	0	0	601
2056	0	451	0	451	0	0	451
2057	0	301	0	301	0	0	301
2058	0	150	0	150	0	0	150
2059	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0
NOMINAL	0	37,590	0	37,590	0	0	37,590
NPV	0	14,376	0	14,376	0	0	14,376

Utility Discount Rate = 6.83%

Benefit Cost Ratio: 9999

PROGRAM: **Curtailable Service DR** **CS**

Rate Impact Measure (RIM) Test

	BENEFITS				COSTS				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	INCENTIVE PAYMENTS	REVENUE LOSSES	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	0	0	0	0	3	63	0	67	-67
2026	0	0	0	0	2	63	0	66	-66
2027	0	0	0	0	6	127	0	132	-132
2028	0	0	0	0	5	127	0	131	-131
2029	0	0	335	335	8	190	0	198	136
2030	0	0	334	334	7	190	0	197	137
2031	0	0	334	334	7	190	0	197	136
2032	0	0	301	301	8	190	0	198	103
2033	0	0	303	303	8	190	0	198	105
2034	0	0	356	356	8	190	0	198	158
2035	0	0	360	360	8	190	0	198	162
2036	0	0	363	363	8	190	0	198	165
2037	0	0	367	367	9	190	0	199	168
2038	0	0	370	370	9	190	0	199	171
2039	0	0	374	374	9	190	0	199	175
2040	0	0	377	377	9	190	0	199	178
2041	0	0	381	381	9	190	0	200	181
2042	0	0	385	385	10	190	0	200	185
2043	0	0	388	388	10	190	0	200	189
2044	0	0	392	392	10	190	0	200	192
2045	0	0	396	396	10	190	0	200	196
2046	0	0	400	400	11	190	0	201	200
2047	0	0	405	405	11	190	0	201	204
2048	0	0	409	409	11	190	0	201	207
2049	0	0	413	413	11	190	0	202	211
2050	0	0	278	278	8	127	0	135	144
2051	0	0	281	281	8	127	0	135	146
2052	0	0	142	142	4	63	0	67	75
2053	0	0	144	144	4	63	0	68	76
2054	0	0	0	0	0	0	0	0	0
2055	0	0	0	0	0	0	0	0	0
2056	0	0	0	0	0	0	0	0	0
2057	0	0	0	0	0	0	0	0	0
2058	0	0	0	0	0	0	0	0	0
2059	0	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0	0
NOMINAL	0	0	8,587	8,587	231	4,752	0	4,983	3,604
NPV	0	0	3,371	3,371	96	2,118	0	2,214	1,157

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 1.522

PROGRAM: **Curtailable Service DR** **CS**

Total Resource Cost (TRC) Test

	BENEFITS				COSTS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	0	0	0	0	3	0	3	-3
2026	0	0	0	0	2	0	2	-2
2027	0	0	0	0	6	0	6	-6
2028	0	0	0	0	5	0	5	-5
2029	0	0	335	335	8	0	8	326
2030	0	0	334	334	7	0	7	327
2031	0	0	334	334	7	0	7	326
2032	0	0	301	301	8	0	8	293
2033	0	0	303	303	8	0	8	295
2034	0	0	356	356	8	0	8	349
2035	0	0	360	360	8	0	8	352
2036	0	0	363	363	8	0	8	355
2037	0	0	367	367	9	0	9	358
2038	0	0	370	370	9	0	9	361
2039	0	0	374	374	9	0	9	365
2040	0	0	377	377	9	0	9	368
2041	0	0	381	381	9	0	9	371
2042	0	0	385	385	10	0	10	375
2043	0	0	388	388	10	0	10	379
2044	0	0	392	392	10	0	10	382
2045	0	0	396	396	10	0	10	386
2046	0	0	400	400	11	0	11	390
2047	0	0	405	405	11	0	11	394
2048	0	0	409	409	11	0	11	398
2049	0	0	413	413	11	0	11	402
2050	0	0	278	278	8	0	8	270
2051	0	0	281	281	8	0	8	273
2052	0	0	142	142	4	0	4	138
2053	0	0	144	144	4	0	4	139
2054	0	0	0	0	0	0	0	0
2055	0	0	0	0	0	0	0	0
2056	0	0	0	0	0	0	0	0
2057	0	0	0	0	0	0	0	0
2058	0	0	0	0	0	0	0	0
2059	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0
NOMINAL	0	0	8,587	8,587	231	0	231	8,356
NPV	0	0	3,371	3,371	96	0	96	3,275

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 35.120

PROGRAM: **Curtailable Service DR** **CS**

Participant Test

	BENEFITS				COSTS		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	SAVINGS IN PARTICIPANT'S BILL $(000)	INCENTIVE PAYMENTS $(000)	OTHER PARTICIPANT'S BENEFITS $(000)	**TOTAL BENEFITS** $(000)	PARTICIPANT'S COST $(000)	**TOTAL COSTS** $(000)	**NET BENEFITS** $(000)
2025	0	63	0	63	0	0	63
2026	0	63	0	63	0	0	63
2027	0	127	0	127	0	0	127
2028	0	127	0	127	0	0	127
2029	0	190	0	190	0	0	190
2030	0	190	0	190	0	0	190
2031	0	190	0	190	0	0	190
2032	0	190	0	190	0	0	190
2033	0	190	0	190	0	0	190
2034	0	190	0	190	0	0	190
2035	0	190	0	190	0	0	190
2036	0	190	0	190	0	0	190
2037	0	190	0	190	0	0	190
2038	0	190	0	190	0	0	190
2039	0	190	0	190	0	0	190
2040	0	190	0	190	0	0	190
2041	0	190	0	190	0	0	190
2042	0	190	0	190	0	0	190
2043	0	190	0	190	0	0	190
2044	0	190	0	190	0	0	190
2045	0	190	0	190	0	0	190
2046	0	190	0	190	0	0	190
2047	0	190	0	190	0	0	190
2048	0	190	0	190	0	0	190
2049	0	190	0	190	0	0	190
2050	0	127	0	127	0	0	127
2051	0	127	0	127	0	0	127
2052	0	63	0	63	0	0	63
2053	0	63	0	63	0	0	63
2054	0	0	0	0	0	0	0
2055	0	0	0	0	0	0	0
2056	0	0	0	0	0	0	0
2057	0	0	0	0	0	0	0
2058	0	0	0	0	0	0	0
2059	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0
NOMINAL	0	4,752	0	4,752	0	0	4,752
NPV	0	2,118	0	2,118	0	0	2,118

Utility Discount Rate = 6.83%

Benefit Cost Ratio: 9999

PROGRAM: **Standby Generation DR** **SBG**

Rate Impact Measure (RIM) Test

	BENEFITS				COSTS				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	INCENTIVE PAYMENTS	REVENUE LOSSES	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	0	0	0	0	39	169	0	208	-208
2026	0	0	0	0	54	338	0	392	-392
2027	0	0	0	0	90	592	0	682	-682
2028	0	0	0	0	114	846	0	960	-960
2029	0	0	2,899	2,899	139	1,099	0	1,239	1,661
2030	0	0	3,676	3,676	177	1,395	0	1,572	2,104
2031	0	0	4,450	4,450	209	1,691	0	1,900	2,551
2032	0	0	4,812	4,812	254	2,029	0	2,283	2,529
2033	0	0	5,660	5,660	293	2,367	0	2,661	2,999
2034	0	0	7,604	7,604	334	2,706	0	3,040	4,564
2035	0	0	7,674	7,674	277	2,706	0	2,983	4,692
2036	0	0	7,746	7,746	284	2,706	0	2,990	4,757
2037	0	0	7,819	7,819	291	2,706	0	2,997	4,823
2038	0	0	7,894	7,894	298	2,706	0	3,004	4,890
2039	0	0	7,970	7,970	306	2,706	0	3,011	4,958
2040	0	0	8,047	8,047	313	2,706	0	3,019	5,028
2041	0	0	8,126	8,126	321	2,706	0	3,027	5,099
2042	0	0	8,206	8,206	329	2,706	0	3,035	5,171
2043	0	0	8,288	8,288	338	2,706	0	3,043	5,245
2044	0	0	8,371	8,371	346	2,706	0	3,052	5,319
2045	0	0	8,456	8,456	355	2,706	0	3,060	5,395
2046	0	0	8,542	8,542	364	2,706	0	3,069	5,473
2047	0	0	8,630	8,630	373	2,706	0	3,078	5,551
2048	0	0	8,719	8,719	382	2,706	0	3,088	5,632
2049	0	0	8,810	8,810	391	2,706	0	3,097	5,713
2050	0	0	8,346	8,346	376	2,537	0	2,913	5,433
2051	0	0	7,871	7,871	360	2,367	0	2,727	5,144
2052	0	0	7,101	7,101	329	2,114	0	2,443	4,658
2053	0	0	6,314	6,314	297	1,860	0	2,157	4,157
2054	0	0	5,510	5,510	263	1,606	0	1,869	3,641
2055	0	0	4,542	4,542	220	1,311	0	1,530	3,012
2056	0	0	3,553	3,553	175	1,015	0	1,189	2,364
2057	0	0	2,394	2,394	119	676	0	796	1,598
2058	0	0	1,209	1,209	61	338	0	399	810
2059	0	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0	0
NOMINAL	0	0	199,240	199,240	8,873	67,642	0	76,515	122,725
NPV	0	0	67,202	67,202	3,139	24,819	0	27,958	39,244

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 2.404

PROGRAM: **Standby Generation DR** **SBG**

Total Resource Cost (TRC) Test

	BENEFITS				COSTS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TOTAL FUEL & O&M SAVINGS	AVOIDED T&D CAP. COSTS	AVOIDED GEN. CAP. COSTS	**TOTAL BENEFITS**	UTILITY PROGRAM COSTS	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	0	0	0	0	39	0	39	-39
2026	0	0	0	0	54	0	54	-54
2027	0	0	0	0	90	0	90	-90
2028	0	0	0	0	114	0	114	-114
2029	0	0	2,899	2,899	139	0	139	2,760
2030	0	0	3,676	3,676	177	0	177	3,499
2031	0	0	4,450	4,450	209	0	209	4,242
2032	0	0	4,812	4,812	254	0	254	4,558
2033	0	0	5,660	5,660	293	0	293	5,366
2034	0	0	7,604	7,604	334	0	334	7,269
2035	0	0	7,674	7,674	277	0	277	7,397
2036	0	0	7,746	7,746	284	0	284	7,462
2037	0	0	7,819	7,819	291	0	291	7,528
2038	0	0	7,894	7,894	298	0	298	7,596
2039	0	0	7,970	7,970	306	0	306	7,664
2040	0	0	8,047	8,047	313	0	313	7,734
2041	0	0	8,126	8,126	321	0	321	7,805
2042	0	0	8,206	8,206	329	0	329	7,877
2043	0	0	8,288	8,288	338	0	338	7,950
2044	0	0	8,371	8,371	346	0	346	8,025
2045	0	0	8,456	8,456	355	0	355	8,101
2046	0	0	8,542	8,542	364	0	364	8,178
2047	0	0	8,630	8,630	373	0	373	8,257
2048	0	0	8,719	8,719	382	0	382	8,337
2049	0	0	8,810	8,810	391	0	391	8,419
2050	0	0	8,346	8,346	376	0	376	7,970
2051	0	0	7,871	7,871	360	0	360	7,511
2052	0	0	7,101	7,101	329	0	329	6,772
2053	0	0	6,314	6,314	297	0	297	6,017
2054	0	0	5,510	5,510	263	0	263	5,247
2055	0	0	4,542	4,542	220	0	220	4,322
2056	0	0	3,553	3,553	175	0	175	3,379
2057	0	0	2,394	2,394	119	0	119	2,274
2058	0	0	1,209	1,209	61	0	61	1,148
2059	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0
NOMINAL	0	0	199,240	199,240	8,873	0	8,873	190,367
NPV	0	0	67,202	67,202	3,139	0	3,139	64,063

Utility Discount Rate = 6.83%

Benefit Cost Ratio = 21.412

PROGRAM: **Standby Generation DR** **SBG**

Participant Test

	BENEFITS				COSTS		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	SAVINGS IN PARTICIPANT'S BILL	INCENTIVE PAYMENTS	OTHER PARTICIPANT'S BENEFITS	**TOTAL BENEFITS**	PARTICIPANT'S COST	**TOTAL COSTS**	**NET BENEFITS**
YEAR	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)	$(000)
2025	0	169	0	169	0	0	169
2026	0	338	0	338	0	0	338
2027	0	592	0	592	0	0	592
2028	0	846	0	846	0	0	846
2029	0	1,099	0	1,099	0	0	1,099
2030	0	1,395	0	1,395	0	0	1,395
2031	0	1,691	0	1,691	0	0	1,691
2032	0	2,029	0	2,029	0	0	2,029
2033	0	2,367	0	2,367	0	0	2,367
2034	0	2,706	0	2,706	0	0	2,706
2035	0	2,706	0	2,706	0	0	2,706
2036	0	2,706	0	2,706	0	0	2,706
2037	0	2,706	0	2,706	0	0	2,706
2038	0	2,706	0	2,706	0	0	2,706
2039	0	2,706	0	2,706	0	0	2,706
2040	0	2,706	0	2,706	0	0	2,706
2041	0	2,706	0	2,706	0	0	2,706
2042	0	2,706	0	2,706	0	0	2,706
2043	0	2,706	0	2,706	0	0	2,706
2044	0	2,706	0	2,706	0	0	2,706
2045	0	2,706	0	2,706	0	0	2,706
2046	0	2,706	0	2,706	0	0	2,706
2047	0	2,706	0	2,706	0	0	2,706
2048	0	2,706	0	2,706	0	0	2,706
2049	0	2,706	0	2,706	0	0	2,706
2050	0	2,537	0	2,537	0	0	2,537
2051	0	2,367	0	2,367	0	0	2,367
2052	0	2,114	0	2,114	0	0	2,114
2053	0	1,860	0	1,860	0	0	1,860
2054	0	1,606	0	1,606	0	0	1,606
2055	0	1,311	0	1,311	0	0	1,311
2056	0	1,015	0	1,015	0	0	1,015
2057	0	676	0	676	0	0	676
2058	0	338	0	338	0	0	338
2059	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0
NOMINAL	0	67,642	0	67,642	0	0	67,642
NPV	0	24,819	0	24,819	0	0	24,819

Utility Discount Rate = 6.83%

Benefit Cost Ratio: 9999

DRAFT VERSION
2025 – 2034

DEMAND SIDE MANAGEMENT

PROGRAM PARTICIPATION STANDARDS

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I. RESIDENTIAL CONSERVATION PROGRAMS

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

HOME ENERGY CHECK

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
HOME ENERGY CHECK PROGRAM

1. PROGRAM OVERVIEW

The Home Energy Check (HEC) program of Duke Energy Florida, LLC (DEF) is a residential energy audit program that provides customers with an analysis of their energy consumption as well as educational information on how to save money by reducing their energy usage. The audit provides the opportunity to promote and directly install cost-effective measures in customers' homes while also educating and encouraging customers to implement energy-saving practices. The Home Energy Check program serves as the foundation for other residential energy efficiency and demand side management programs. The Home Energy Check program offers the following types of energy audits:

1. Type 1: Free Walk-Through (computer assisted)
2. Type 2: Customer Online (Internet Option)
3. Type 3: Customer Phone Assisted
4. Type 4: Home Energy Rating (or BERS/HERS) Audit

All audit types, except Type 4 - Home Energy Rating, are provided to the customer at no charge. The charge for the Home Energy Rating can be found in DEF's tariffs Section II, Fifth Revised Sheet No. 2.6 - Florida BERS/HERS Audit.

Customers will be provided with energy-efficiency tips and examples of easily installed, energy-efficiency measures. The program promotes continued customer involvement by demonstrating sustainable and measurable reductions in energy usage through the implementation of low-cost energy-efficiency measures and energy-saving recommendations. Customers participating in the Home Energy Check program may receive a residential Energy Efficiency Kit. The kit will contain energy saving measures that can easily be installed and utilized by the customer. The contents of this kit will be evaluated periodically and may change over time.

Additionally, beginning in 2021, a participant classified as low-income, with income equal to or less than 200% of federal poverty level guideline, will be eligible to receive measures included in an "Assistance Kit". These measures will be provided in addition to the measures included in the normal HEC Kits to customers who complete either an online or

walk-through audit. The "Assistance Kit" will include measures that can provide meaningful energy efficiency savings to customers in need. The "Assistance Kits" will be available for up to 20,000 qualifying low-income customers each year through 2025.

2. ELIGIBILITY REQUIREMENTS

The residence must be in DEF's service area and must be a residential, metered customer of DEF.

3. PARTICIPATION REQUIREMENTS

No more than one audit may be conducted for the same customer at the same premise within a two-year period. DEF reserves the right to update audits and schedule field visits on a per need basis.

4. REPORTING REQUIREMENTS

The reporting requirements for this program will follow Rule 25-17.0021(5), Florida Administrative Code.

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

RESIDENTIAL INCENTIVE PROGRAM

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
RESIDENTIAL INCENTIVE PROGRAM

1. PROGRAM OVERVIEW

The Residential Incentive Program (RI PROGRAM) of Duke Energy Florida, LLC (DEF) is an "umbrella" program designed to improve the energy efficiency of existing and new residential homes. The program seeks to meet the following overall goals:

- Provide a cost-effective portfolio of measures across different housing types.
- Provide customer energy savings and demand reduction through the installation of energy-efficient equipment and thermal envelope upgrades.
- Educate the residential market regarding best practices, innovative technologies, and opportunities to participate in all applicable incentives for managing energy consumption.

2. ELIGIBILITY REQUIREMENTS

1. All measures must have been recommended during a DEF energy audit completed within the past two (2) years. (**Exception:** *in emergency cases, the customer may have HVAC or Heat Pump Water Heaters equipment installed prior to the audit).*

2. The residence must be in DEF's service area and be a residential, metered customer of DEF.

3. All HVAC, Heat Pump Water Heaters and window installations must be permitted by the appropriate local agency.

4. A DEF-approved Trade Ally must be used for Duct Test, Duct Leakage Repair and Ceiling Insulation measures.

5. All installations must be accessible for verification by a DEF representative to ensure compliance with the Residential Incentive Program standards.

3. TRADE ALLY REQUIREMENTS

1. All Trade Allies must comply with DEF Trade Ally training, procedures, and manufacturers' specifications specific to the portion of the RI PROGRAM for which they are participating. Failure to do so may result in termination of participation in any or all DEF programs.

2. The Trade Ally is responsible for the work to be performed, the supervision of their employees and the use of Trade Ally's own equipment to meet the work specifications and completion date.

3. The Trade Ally must correct any deficiency found in the installation or product when advised by a DEF representative and notify the DEF representative of compliance within thirty (30) days.

4. The Trade Ally shall notify DEF of any incident occurring during installation of an RI PROGRAM measure or any follow-up procedure within twenty-four (24) hours of the incident.

5. The Trade Ally shall indemnify and hold DEF harmless against any and all injuries, damages, claims, or costs caused by items furnished or services rendered by the Trade Ally and/or its employees.

6. The Trade Ally must comply with all Federal, State, and local codes and regulations and have the appropriate permits and license(s) for the work to be performed.

7. The Trade Ally must provide documentation of and maintain in force the following types of insurance coverage. The Trade Ally must maintain coverage that meets the greater of the minimum coverage required by the State for license retention or the minimum coverage requirements specified in the Trade Ally agreement. This applies to all Program measures:

    - Workman's Compensation
    - General Contractual and Automobile Bodily Injury Liability

- General and Automobile Property Damage Liability
- General and Vehicle Liability

4. INCENTIVES

The incentive payment structure is as follows:

Program Component	Dwelling Segment	Incentive
Duct Test	Single-Family and Manufactured Homes	DEF will pay 50% of test cost up to $50 for the first unit tested for homes with ducted electric air and heat
		DEF will pay 50% of test cost up to $40 for each additional unit at same address for homes with ducted electric air and heat
Duct Leakage Repair	Single-Family and Manufactured Homes	DEF will pay the cost of duct repairs up to $400 per system for homes with ducted electric air and heat.
Attic Insulation (Ceiling Insulation Upgrade)	Single-Family Homes	DEF will pay for insulation upgrades for single-family homes. • Will pay $0.25 per square foot up to $600 to bring insulation from R-19 or less to a minimum of R-38 • Will pay $0.27 per square foot up to $700 to bring insulation from R-12 or less to a minimum of R-38 • Will pay $0.31 per square foot and up to $800 to bring insulation from R-2 or less to a minimum of R38.

Attic Insulation (Ceiling Insulation Upgrade)	Multi- Family Homes	DEF will pay for insulation upgrades for multi-family homes. • Will pay $0.27 per square foot up to $300 to bring insulation from R-12 or less to a minimum of R-38 • Will pay $0.31 per square foot up to $350 to bring insulation from R-2 or less to a minimum of R38.
High Efficiency Central Air Conditioner	Single-Family	DEF will pay $300 for a High Efficiency Central Air Conditioning system with a minimum cooling efficiency of 16.0 SEER/15.2 SEER2 replacing less efficient Central Air Conditioning system for Single-Family Homes.
High Efficiency Heat Pump	Single-Family	DEF will pay $500 for High Efficiency Heat Pump system with a minimum cooling efficiency of 16.0 SEER/15.2 SEER2 and minimum heating efficiency of 9.0 HSPF/7.5 HSPF2 replacing less efficient Heat Pump HVAC systems
High Efficiency Heat Pump Replacing Resistance Heat	Single-Family, Manufactured and Multi- Family Homes	DEF will pay $600 for High Efficiency Heat Pump system with a minimum cooling efficiency of 16.0 SEER/15.2SEER2 and minimum heating efficiency of 9.0 HSPF/7.5 HSPF2 replacing less efficient resistance heat/strip heat HVAC systems.

Higher Efficiency Heat Pump Replacing Resistance Heat	Single-Family	DEF will pay $1,000 for High Efficiency Heat Pump system with a minimum cooling efficiency of 16.8 SEER/16.SEER2 and minimum heating efficiency of 9.0 HSPF/7.5HSPF2 replacing less efficient resistance heat/strip heat HVAC systems.
High Efficiency Replacement Windows	Single-Family	DEF will pay $4.00 per square foot of east, west and south-facing window area up to a maximum incentive of $800 for high performance windows that have a minimum Solar Heat Gain Coefficient (SHGC) of less than or equal to 0.21 and a U-Value of equal to or less than 0.27
High Efficiency Water Heating	Single-Family	DEF will pay $500 for a 50 Gallon heat pump (hybrid) water heater. To qualify for the rebate, it must be ENERGY STAR certified and have a uniform energy factor (UEF) of at least 3.3.
		DEF will pay $800 for an 80 Gallon heat pump (hybrid) water heater. To qualify for the rebate, it must be ENERGY STAR certified and have a uniform energy factor (UEF) of at least 3.3.

Notes: *1. If SEER is not available, an EER conversion using industry standard practices may be used to determine qualification.*

4.1 INCENTIVE PROCESSING

1. A copy of the incentive form and all supporting documentation must accompany the application for all measures completed.

2. The customer or Trade Ally shall have twelve (12) months from date of installation to submit all required forms for the measure after which they will become ineligible for incentive.

3. Inspections will be performed on at least 10% of all program measures.

4. A copy of the certificate of completion and pre and post duct leakage data will be required for single-family, aerosol, duct-sealing measures.

5. If the measure is assigned for inspection, a DEF representative will complete an inspection form.

6. Incentives will be processed for payment after inspection requirements are met.

7. Duct test repair and insulation upgrade, incentive payments are made to the Trade Allies.

8. HVAC, Heat Pump Water Heaters, and window incentive payments are paid to the customer or designated recipient.

5. REPORTING REQUIREMENTS

The reporting requirements for this program will follow Rule 25-17.0021(5), F.A.C.

6. DUCT TEST AND LEAKAGE REPAIR FOR SINGLE-FAMILY AND MANUFACTURED HOMES

6.1 PARTICIPATION REQUIREMENTS

1. Multi-family homes are not eligible to participate.

2. Repair recommendations must have been the result of a DEF-approved duct test or DEF audit. (**Exception:** If during an energy audit or prior to duct test, the DEF representative validates the need for duct repair or complete duct system replacement, a duct test is not required).

3. The customer's duct system must be in adequate condition to accommodate the duct test and must be accessible and in adequate condition for duct repair. (**Exception:** aerosol sealing method).

4. Homes must have centrally ducted electric cooling and electric heat. If non-space heating combustion appliances exist (i.e., water heater, stove, etc.), then the house must pass an industry-approved safety test prior to any duct sealing.

5. A minimum of 60 CFM at 25 Pascals of leakage per ton of HVAC equipment capacity and a minimum of 60% of the leakage sealed is the baseline for participation in aerosol duct sealing.

6.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations must meet manufacturers' instructions and specifications and must meet all state, county, and local codes.

2. For conventional duct repair, only mastic and fiber cloth or mastic with embedded fiber (mixed) may be used to seal the duct system. Tape may be used to hold the duct in place while the mastic is drying. If tape is used, the mastic must cover the tape completely and extend a minimum of 2" past the width of the tape. Mastic must meet Underwriters Laboratories (UL) 181 specifications for the material that the mastic is being applied to.

3. Duct test procedures must be followed as specified in manufacturers' instructions, unless otherwise directed by DEF when performing the duct test.

4. All participating Trade Allies in the Duct Test and Leakage Repair Program must follow DEF Code of Ethics. DEF reserves the right to request background check results on all participating employees.

5. Aerosol procedures must be followed as specified in training or manufacturers' instructions and will include:

    - Complete pre-seal and post-seal leakage test using approved aerosol software.
    - Aerosol sealants shall meet the requirements of Underwriters Laboratories (UL) 723.
    - Seal all boot-to-ceiling and/or floor connections.
    - All areas of the duct system will be evaluated, and cost-effective

leaks will be sealed by conventional or aerosol method.

6.3 TRADE ALLY REQUIREMENTS

1. Must meet the Trade Ally requirements as outlined in Section 3.

2. Must be a licensed Mechanical Contractor, or a Class A, B, or C Air Conditioning Contractor.

3. All participating Trade Allies must attend and successfully complete DEF-approved duct repair training.

6.4 INSPECTION REQUIREMENTS

All on-site inspectors must attend and successfully complete a DEF-approved Duct Diagnostics training.

At a minimum, the training will consist of:

- Training session on Building Science
- Duct test applications (classroom, field, and laboratory)
- Codes and standards as they relate to duct sealing.
- Successfully demonstrate the use of blower door equipment

7. CEILING INSULATION UPGRADE FOR SINGLE-FAMILY AND MULTI-FAMILY HOMES

7.1 PARTICIPATION REQUIREMENTS

1. Manufactured homes are not eligible to participate.

2. Insulation recommendations must have been the result of a DEF audit.

3. Eligible residences must have whole-house cooling and/or electric heating.

4. The weighted average R-value of the existing insulation over the total attic square

footage (above conditioned space) must be less than or equal to R-19. (**Exception:** May exclude conditioned area for a recent addition.)

5. Any structure that has participated in DEF's attic insulation upgrade program is not eligible to participate again. However, if the structure, through an act of God loses the insulation **and** the loss is **not** covered by insurance, the structure is eligible to participate a second time. It is the customer's responsibility to provide DEF with a letter from his/her insurance company stating that the insulation was not covered.

6. Any home with "Knob and Tube Wiring" must be documented or certified as not energized by a state-licensed electrician.

7.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. The insulation must be installed in accordance with the manufacturers' recommendations, specifications and must meet all state, county, and local codes.

2. All installations must result in an insulation value equal to or greater than R-38.

3. Flat roofs must have enough space to allow a minimum of 3 inches of air space above the insulation after insulation has been installed to the recommended R-value.

4. The insulation must be installed in the unconditioned space as a direct application to the attic area over the conditioned space.

5. The insulation must have a minimum clearance around all recessed lighting and gas-fired appliances as required by state, county, and local codes.

6. The insulation must be installed uniformly, resulting in the same R-value throughout the entire area including knee walls.

7. All attic access panels that are located in conditioned space must be insulated in the same minimum R-value as throughout the entire area and permanently attached.

7.3 TRADE ALLY REQUIREMENTS

1. Must meet the Trade Ally requirements as outlined in Section 3.

2. The Trade Ally will attach an R-value Certification Card signed by the insulation Trade Ally or his/her representative to the attic joist visible from the attic access and provide a copy of the R-value Certification Card to the customer. The card shall contain, at a minimum, the following information:

    - Manufacturer's name
    - Insulation type
    - R-Value of insulation installed.
    - Thickness of insulation installed.
    - Location of insulation installed.
    - Name and address of the Trade Ally installing the insulation.
    - Date of installation

3. All participating Trade Allies in the Ceiling Insulation Program must follow DEF Code of Ethics. DEF reserves the right to request background check results on all participating employees.

8. HIGH-EFFICIENCY CENTRAL AIR CONDITIONER FOR SINGLE-FAMILY HOMES

8.1 PARTICIPATION REQUIREMENTS

1. Multi-family and manufactured homes are not eligible to participate.

2. The customer must have had an audit within the past two (2) years. (An exception would be made for emergency heat pump equipment installations and change-outs as a result of a non-operating system).

3. The customer must not be replacing an existing heat pump.

8.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations must meet manufacturers' instructions and specifications and must meet all state, county, and local codes.

2. Installed equipment must be complete systems and shall be listed by Underwriters Laboratories or other nationally recognized testing laboratories in accordance with Underwriters Laboratories (UL) standards, as appropriate.

3. Both air handler and condensing unit must be replaced.

4. The installed air handler/outdoor condensing unit combination must satisfy both the heating and cooling minimum-efficiency requirements.

5. All equipment shall be new and not refurbished, previously installed, or used.

6. Equipment efficiency ratings shall be obtained from a nationally recognized certification program directory or a manufacturer's rating certified to be in compliance with an approved Department of Energy (DOE) or Air Conditioning Heating and Refrigeration Institute (AHRI) rating procedure (standard 210/240-2008).

7. Air handling units, mechanical closets and enclosed support platforms shall be sealed from unconditioned air.

8. System must be all electric.

8.3 TRADE ALLY REQUIREMENTS

1. Must meet the Trade Ally requirements as outlined in Section 3.

2. Must be a licensed Mechanical Contractor, or a Class A, B, or C Air Conditioning Contractor.

3. The Trade Ally must be able to demonstrate their ability to properly calculate heating and cooling loads by using industry-approved sizing software in the jurisdiction

having authority.

4. The Trade Ally shall have twelve (12) months from date of installation to submit all "High Efficiency Equipment Forms" after which they will become ineligible for incentive.

9. HIGH EFFICIENCY HEAT PUMP FOR SINGLE-FAMILY HOMES

9.1 PARTICIPATION REQUIREMENTS

1. Multi-family and manufactured homes are not eligible to participate.

2. The customer must have had an audit within the past two (2) years. (An exception would be made for emergency heat pump equipment installations and change-outs as a result of a non-operating system).

3. Replacing less efficient heat pump.

9.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations must meet manufacturers' instructions and specifications and must meet all state, county, and local codes.

2. Installed equipment must be complete systems and shall be listed by Underwriters Laboratories or other nationally recognized testing laboratories in accordance with Underwriters Laboratories (UL) standards, as appropriate.

3. Both air handler and condensing unit must be replaced.

4. The installed air handler/outdoor condensing unit combination must satisfy both the heating and cooling minimum-efficiency requirements.

5. All equipment shall be new and not refurbished, previously installed, or used.

6. Equipment efficiency ratings shall be obtained from a nationally recognized certification program directory or a manufacturer's rating certified to be in compliance with an approved Department of Energy (DOE) or Air Conditioning

Heating and Refrigeration Institute (AHRI) rating procedure (standard 210/240-2008).

7. Air handling units, mechanical closets and enclosed support platforms shall be sealed from unconditioned air.

8. System must be all electric.

9.3 TRADE ALLY REQUIREMENTS

1. Must meet the Trade Ally requirements as outlined in Section 3.

2. Must be a licensed Mechanical Contractor, or a Class A, B, or C Air Conditioning Contractor.

3. The Trade Ally must be able to demonstrate their ability to properly calculate heating and cooling loads by using industry-approved sizing software in the jurisdiction having authority.

4. The Trade Ally shall have twelve (12) months from date of installation to submit all "High Efficiency Equipment Forms" after which they will become ineligible for incentive.

10. HIGH-EFFICIENCY, ELECTRIC HEAT PUMPS - SINGLE FAMILY, MULTI-FAMILY, AND MANUFACTURED HOMES

10.1 PARTICIPATION REQUIREMENTS

1. The customer must have had an audit within the past 2 years. (An exception would be made for emergency heat pump equipment installations and change-outs as a result of non-operating systems).

2. Replacing electric resistance/strip heat.

10.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations must meet manufacturers' instructions and specifications and must meet all state, county, and local codes.

2. Installed equipment must be complete systems and shall be listed by Underwriters Laboratories or other nationally recognized testing laboratories in accordance with Underwriters Laboratories (UL) standards as appropriate.

3. Both air handler and condensing unit must be replaced.

4. The installed air handler/outdoor condensing unit combination must satisfy both the cooling and heating minimum efficiency requirements.

5. All equipment shall be new and not refurbished, previously installed, or used.

6. Equipment efficiency ratings shall be obtained from a nationally recognized certification program directory or a manufacturer's rating certified to be in compliance with an approved Department of Energy (DOE) or Air Conditioning Heating and Refrigeration Institute (AHRI) rating procedure (standard 210/240-2008).

7. Air handling units, mechanical closets and enclosed support platforms shall be sealed from unconditioned air.

8. Heat pump must be all electric.

10.3 TRADE ALLY REQUIREMENTS

1. Must meet the Trade Ally requirements as outlined in Section 3.

2. Must be a licensed Mechanical Contractor, or a Class A, B, or C Air Conditioning Contractor.

3. Trade Allies must be able to demonstrate their ability to properly calculate heating and cooling loads by using industry-approved sizing software in the jurisdiction

having authority.

4. The Trade Ally shall have twelve (12) months from date of installation to submit all "High Efficiency Equipment Forms" after which they will become ineligible for incentive.

11. HIGHER-EFFICIENCY, ELECTRIC HEAT PUMPS - SINGLE-FAMILY HOMES

11.1 PARTICIPATION REQUIREMENTS

1. Multi-family and manufactured homes are not eligible to participate.

2. The customer must have had an audit within the past two (2) years. (An exception would be made for emergency heat pump equipment installations and change-outs as a result of a non-operating system).

3. Replacing electric resistance/strip heat.

11.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations must meet manufacturers' instructions and specifications and must meet all state, county, and local codes.

2. Installed equipment must be complete systems and shall be listed by Underwriters Laboratories or other nationally recognized testing laboratories in accordance with Underwriters Laboratories (UL) standards as appropriate.

3. Both air handler and condensing unit must be replaced.

4. The installed air handler/outdoor condensing unit combination must satisfy both the heating and cooling minimum-efficiency requirements.

5. All equipment shall be new and not refurbished, previously installed, or used.

6. Equipment efficiency ratings shall be obtained from a nationally recognized certification program directory or a manufacturer's rating certified to be in compliance with an approved Department of Energy (DOE) or Air Conditioning

Heating and Refrigeration Institute (AHRI) rating procedure (standard 210/240-2008).

7. Air handling units, mechanical closets and enclosed support platforms shall be sealed from unconditioned air.

8. Heat pump must be all electric.

11.3 TRADE ALLY REQUIREMENTS

1. Must meet the Trade Ally requirements as outlined in Section 3.

2. Must be a licensed Mechanical Contractor, or a Class A, B, or C Air Conditioning Contractor.

3. The Trade Ally must be able to demonstrate their ability to properly calculate heating and cooling loads by using industry-approved sizing software in the jurisdiction having authority.

4. The Trade Ally shall have twelve (12) months from date of installation to submit all "High Efficiency Equipment Forms" after which they will become ineligible for incentive.

12. REPLACEMENT WINDOWS

12.1 PARTICIPATION REQUIREMENTS

1. Multi-family and manufactured homes are not eligible to participate.

2. Eligible residences must have whole-house electric air conditioning and whole-house electric heating.

3. The customer must have had an audit within the past two (2) years. (An exception would be made for emergency window equipment installations and change-outs as a result of a non-operating system).

4. Any structure that has maximized DEF's window incentive program is not eligible to participate again. However, if the structure, through an act of God, loses windows **and** the loss is **not** covered by insurance, the structure is eligible to participate a second time. It is the customer's responsibility to provide DEF with a letter from his/her insurance company stating that the windows were not covered.

12.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. The replacement window and installation must meet manufacturers' instructions and specifications and must meet all state, county, and local codes.

2. Incentive will be provided for south, east and west facing windows.

3. All materials shall be new and not refurbished, previously installed, or used.

4. The windows must be labeled by the National Fenestration Rating Council (NFRC) as achieving a Solar Heat Gain Coefficient (SHGC) of less than or equal to 0.21 and a U- value of less than or equal to 0.27.

5. Windows with overhangs extending three (3) feet or greater are exempt from the SHGC requirement but not the U-value requirement.

12.3 TRADE ALLY REQUIREMENTS

1. Must meet the Trade Ally requirements as outlined in Section 3.

2. The Trade Ally will leave a copy of the manufacturers' product specification sheet with the customer.

13. HIGH-EFFICIENCY WATER HEATING FOR SINGLE-FAMILY HOMES

13.1 PARTICIPATION REQUIREMENTS

1. Multi-family and manufactured homes are not eligible to participate.

2. The customer must have had an audit within the past two (2) years. (An exception

would be made for emergency water heating equipment installations and change-outs as a result of a non-operating system).

3. The customer must not be replacing an existing heat pump water Heater.

13.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations must meet manufacturers' instructions and specifications and must meet all state, county, and local codes.

2. Installed equipment must be complete systems and shall be listed by Underwriters Laboratories or other nationally recognized testing laboratories in accordance with Underwriters Laboratories (UL) standards, as appropriate.

3. All equipment shall be new and not refurbished, previously installed, or used.

4. Equipment efficiency ratings shall be obtained from a nationally recognized certification program directory or a manufacturer's rating certified to be in compliance with an approved Department of Energy (DOE) or Air Conditioning Heating and Refrigeration Institute (AHRI) rating procedure (standard 210/240-2008).

5. System must be all electric.

13.3 TRADE ALLY REQUIREMENTS

1. Must meet the Trade Ally requirements as outlined in Section 3.

2. Must be a Florida plumber licensed by the city, county, or state.

3. The Trade Ally shall have twelve (12) months from date of installation to submit all "High Efficiency Equipment Forms" after which they will become ineligible for incentive.

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

MULTI-FAMILY NEW BUILDER CONSTRUCTION PROGRAM

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
MULTI-FAMILY NEW BUILDER CONSTRUCTION PROGRAM

1. PROGRAM OVERVIEW

The Multi-Family New Builder Construction (MFNBC) program is designed to provide incentives to multi-family builders and developers for energy efficiency improvements. This program builds on customer awareness the DEF energy efficiency and marketing efforts designed to educate customers on cost-effective measures for residential dwellings.

The program seeks to meet the following overall goals:

- The purpose of this program is to provide incentives to encourage residential multi-family construction to exceed applicable residential building codes and or construction that meets Energy Star requirements.
- Provide customer energy savings and demand reduction through the installation of energy-efficient equipment and thermal envelope upgrades.
- Educate the residential market regarding best practices, innovative technologies, and opportunities to participate in all applicable incentives for managing energy consumption.

2. ELIGIBILITY REQUIREMENTS

1. The MFNBC program is available to builders and developers of multifamily residential dwellings that are served on a residential retail schedule. Details of the program are available on the company website, www.duke-energy.com. The multi-family unit must be new. Additions do not qualify for this residential new construction measure. The multi-family unit will be eligible if the project is permitted new construction by the local governing body and Florida Building Code.

2. The MFNBC builder, developer or builder/owner must comply with all federal, state, and local codes.

3. The multi-family unit must be accessible for verification of the MFNBC program standards by a DEF employee or representative.

4. The multi-family unit must be individually metered by DEF on a residential rate.

5. All installations must be accessible for verification by a DEF representative to ensure compliance with this program participation standards.

3. BUILDER/DEVELOPER REQUIREMENTS

1. All Builders/Developers must comply with DEF Builders/Developers training, procedures, and manufacturers' specifications specific to the portion of the MFNBC program for which they are participating. Failure to do so may result in termination of participation in any or all DEF programs.

2. All Builders/Developers are responsible for the work to be performed, the supervision of their employees and the use of Trade Ally's own equipment to meet the work specifications and completion date.

3. All Builders/Developers must correct any deficiency found in the installation or product when advised by a DEF representative and notify the DEF representative of compliance within thirty (30) days.

4. All Builders/Developers shall notify DEF of any incident occurring during installation of a program measure or any follow-up procedure within twenty-four (24) hours of the incident.

5. All Builders/Developers shall indemnify and hold DEF harmless against any and all injuries, damages, claims, or costs caused by items furnished or services rendered by the Builders/Developers and/or its employees.

6. All Builders/Developers must comply with all Federal, State, and local codes and regulations and have the appropriate permits and license(s) for the work to be performed.

7. All Builders/Developers must provide documentation of and maintain in force the following types of insurance coverage. The Builders/Developers must maintain coverage that meets the greater of the minimum coverage required by the State for license retention or the minimum coverage requirements specified in the Builders/Developers agreement. This applies to all Program measures:

   - Workman's Compensation
   - General Contractual and Automobile Bodily Injury Liability
   - General and Automobile Property Damage Liability
   - General and Vehicle Liability

4. INCENTIVES

The incentive payment structure is as follows:

ENERGY STAR Qualified New MFNBC -Whole Home Improvement Tier 1	Will pay an incentive in the amount of $500 per new single metered Apartment.

5. INCENTIVE PROCESSING

1. A copy of the incentive form and all supporting documentation must accompany the application for all measures completed.

2. All Builders/Developers shall have twelve (12) months from date of completion to submit all required forms for the measure after which they will become ineligible for incentive.

3. Inspections will be performed on at least 10% of all program measures.

4. A copy of the Energy Star certificate.

5. If the measure is assigned for inspection, a DEF representative will complete an inspection form.
6. Incentives will be processed for payment after inspection requirements are met.
7. Incentive payments are made to the Builders/Developers.

6. REPORTING REQUIREMENTS

The reporting requirements for this program will follow Rule 25-17.0021(5), F.A.C.

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

NEIGHBORHOOD ENERGY SAVER PROGRAM

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
NEIGHBORHOOD ENERGY SAVER PROGRAM

1.0 PROGRAM OVERVIEW

Duke Energy Florida, LLC's (DEF) Neighborhood Energy Saver program is a custom energy conservation program for low-income customers. The program is designed to assist selected neighborhoods where 50% of the households have incomes equal to or less than 200% of the poverty level as established by the U.S. Government. This program allows DEF to individually reach a larger audience of income-eligible customers than through traditional government agency flow-through methods. DEF or a third-party contractor will directly install energy conservation measures (ECM) identified through an energy assessment of the customer's home to increase their energy efficiency. Additionally, customers will receive a comprehensive package of energy education materials which will educate them on ways to better manage their energy usage. The energy conservation measures installed, and energy efficiency education provided, will be at no cost to the participants.

This program seeks to achieve the following goals:

1. Complete a home energy assessment to identify energy-efficiency opportunities within the customer's home.

2. Implement a comprehensive package of electric conservation measures to increase the home's energy efficiency.

3. Provide one-on-one customer education on energy-efficiency techniques and energy conservation measures.

4. Promote behavioral changes that will help customers control their energy usage.

2.0 ELIGIBILTY REQUIREMENTS

This DEF program is a direct install program based upon identifying income-eligible neighborhoods where at least 50% of the households have incomes equal to or less than 200% of the poverty level established by the U.S. Government. Additional requirements

are as follows:

- The resident must be a residential, metered customer in DEF's service area.
- Customer must reside in a selected DEF qualifying Census Block that meets the definition of an income-eligible neighborhood as stated above.
- Multi-family dwellings that meet the above definition, which are located within the same city, but may not be within the same Census Block, may also be eligible to participate in the program if they meet guidelines as presented in the program participation standards.
- All installations must be accessible for verification by a DEF representative.

3.0 EQUIPMENT/MATERIALS AND INSTALLATION SPECIFICATIONS

All materials and installation specifications shall meet or exceed the following guidelines:

- All equipment and the associated installations must meet manufacturers' instructions and specifications and DEF procedures. Any contractor who fails to meet these requirements may be terminated from participation in any or all DEF programs.
- All work shall be performed to constitute a finished product.
- Materials shall be free of defects and covered under warranty for at least one year.
- Installation procedures must comply with all federal, state, and local codes.

4.0 CONTRACTOR REQUIREMENTS

The contractor may work with subcontractors to install certain measures as mutually agreed upon with DEF. Contractors and subcontractors must have an active Florida General Contractor's license, meet all associated requirements of the Florida Department of Business and Professional Regulation and must comply with all local, state, and federal rules and codes. The selected contractor(s) is/are responsible for all work performed and must meet and/or comply with the following requirements:

1. Contractors must have appropriate license(s) and comply with all appropriate federal, state, and local building and safety codes for all work performed.

2. DEF reserves the right to request background checks of contractors participating in this program. The contractor shall be responsible for all associated costs.

3. The contractor is responsible for the associated work to be performed, the supervision of their employees and/or subcontractors and the use of contractor's own equipment (or rental equipment) to meet the work specifications.

4. All contractors must comply with DEF contractor procedures and manufacturers' specifications specific to this program. Failure to do so may result in termination of participation in any or all DEF programs.

5. The contractor shall notify DEF of any incident occurring as a result of this program or any follow-up procedure within one (1) working day of the incident.

6. The contractor must correct any deficiency found in the installation or product(s) associated with this program's comprehensive package of electric conservation measures, when advised by a DEF representative, and notify the DEF representative of compliance within thirty (30) days.

7. Contractors shall indemnify and hold DEF harmless from any and all losses, liabilities, injuries, damages, claims or costs, whatsoever caused, by items furnished or services rendered, as a result of this program.

8. The contractor must notify their insurance companies to provide DEF with documentation, and maintain in force, the state required minimum insurance policies for license retention or the following minimum insurance policies, whichever is greater:

    - Workman's Compensation as required by law.
    - General Contractual and Automobile Bodily Injury Liability: $100,000 per person and $300,000 per occurrence
    - General and Automobile Property Damage Liability: $100,000 per occurrence
    - General and Vehicle Liability policies endorsed: $100,000 per occurrence to provide blanket coverage.
    - All sub-contract labor must comply with insurance requirements.

9. All participating duct sealing contractors must attend and successfully complete a DEF-approved duct repair course. At a minimum, the training will consist of:

    - Training session on building science
    - Duct test applications (classroom, field, and laboratory)
    - Codes and standards as they relate to duct sealing.

10. Sub-contractors participating in the measures must follow DEF's Code of Ethics. DEF reserves the right to request background check results on all participating contractors and employees.

5.0 ELIGIBLE MEASURES

5.1 ENERGY-EFFICIENT LIGHTING

This measure will provide for the installation of a maximum of eight (8) energy-efficient light bulbs, for lights which are in use for an average of at least four (4) hours per day:

The contractor shall replace up to eight (8) less efficient bulbs with LED bulbs with similar lumen output. LED bulbs will be installed in accordance with the manufacturer's specifications.

5.2 WATER HEATER MEASURES

5.2.1 WATER HEATER INSULATION WRAP

Contractor will furnish and install water heater insulation on electric water heaters as needed in accordance with the following requirements:

- Insulation shall have an insulating value of R-6 or greater.
- Insulation shall be Underwriters Laboratories (UL) approved.
- Insulation shall be installed in accordance with manufacturer guidelines.
- Tape is allowed to be placed on top of the wrap to secure the insulation. (Tape used to secure the insulation must be vinyl and have good adhesive qualities.)
- Water heating units, which have manufacturers' warnings against insulating, shall not be wrapped.
- Gas water heaters do not qualify.
- Any violation of the National Electrical Code will make a unit ineligible for the

water heater wrap.

Recommended Materials

- Blanket Materials conformance to ASTM C592-80
- High Temperature conformance to ASTM 892-78
- Facing Material must have foil or vinyl facing.
- R-Value must be a minimum of R-6.

5.2.2 WATER HEATER PIPE INSULATION

Contractor will furnish and install pipe insulation, as needed, in accordance with the following requirements:

- Insulation shall have an insulating value of R-3 or greater.
- Insulation shall be installed on at least the first five (5) feet of the hot-and-cold water pipes, when accessible.
- Gas water heater systems do not qualify.
- Any violation of the National Electrical Code will make a unit ineligible for the water heater pipe insulation.

Recommended Materials

- Must be flexible.
- Wall thickness of 1 inch.
- Temperature range must be 160 degrees to 200 degrees Fahrenheit.
- Must comply with requirements of ASTM E 84-05 and Underwriters Laboratories (UL) 181 sections 11.0 a 16.0, and retards heat loss.

5.2.3 WATER HEATER TEMPERATURE CHECK AND ADJUSTMENT

- The contractor will check the temperature of the hot water and inform the customer of the possibility for turndown adjustment.
- Contractor will discuss the appropriateness of this conservation measure.
- If customer agrees and the water heater equipment is in proper working condition, contractor should reduce temperature setting to 120° F.

5.2.4 WATER-SAVING FAUCET AERATORS

Contractor will furnish and install a maximum of three (3) water-saving faucet aerators on the customer's faucets.

- Install a maximum of one kitchen aerator per home that shall provide a maximum-flow rate of 2.2 gallons per minute (GPM) over normal line pressures and have shut-off capability.
- Install a maximum of two (2) bathroom aerators per home that shall provide a maximum flow rate of 1.5 GM over normal line pressures.
- Homes using gas water heaters will not qualify for water saving faucet aerators measures.

Recommended Materials

- Must be dual thread to fit male and female threaded faucets.
- Must meet the performance requirements of ANSI specification A112.18.
- Screen must be stainless steel.

5.2.5 WATER SAVING SHOWERHEADS

Contractor will furnish and install a maximum of two (2) showerheads per home, including adapters. The showerhead:

- Shall have fittings constructed of chrome plated solid brass with 1/2-inch thread.
- Shall have a flow rate not to exceed 2.5 GPM at normal line pressures.
- Hand-held type fixtures may be provided. If the existing fixture is not handheld, the contractor must obtain the customer's approval to install the handheld showerhead.

Recommended Materials

- Must meet ANSI/ASME specification A112.18.1M 2.5 GPM max.
- Adjustable spray selections offer regular, massage and combo setting.
- Must meet Federal, State, and Local plumbing standards.
- Must have pause feature for user to slow the flow for additional savings.
- Anti-sediment screen to prevent line debris from clogging the screen.

5.3 REFRIGERATION THERMOMETERS

Contractor will furnish, install, and demonstrate the proper temperature setting for the refrigeration equipment:

- Locate all refrigerators/freezers in the home.
- Place one thermometer in refrigeration compartment area that will have uniform

temperature and place one thermometer in the freezer compartment.
- Educate resident on proper refrigeration settings and how to adjust their refrigerator/freezer thermostat.
- Install a maximum of six (6) refrigeration thermometers per home.

5.4 HVAC MEASURES

5.4.1 WALL PLATE THERMOMETER

Contractor will furnish, install, and recommend the winter/summer temperature settings for the HVAC equipment:

- For central HVAC equipment, the wall plate thermometer should be mounted in the main conditioned space as close to any central HVAC air returns and away from any supply vents.
- For window units, locate the wall plate thermometer on the opposite wall in the largest room that is cooled by the unit.
- The wall plate thermometer should not be installed on exterior walls.
- Replace the existing wall switch plate with the wall plate thermometer.
- Educate resident on recommended winter/summer settings and how to adjust the HVAC system thermostat.
- Install a maximum of one (1) wall plate thermometer per home.

Recommended Materials
- Must be Underwriters Laboratories (UL) listed.
- Must be fire resistant and precut to fit.
- Must be minimum 1/8” thick.
- Must be wireless and battery included.

5.4.2 SMART THERMOSTAT

Contractor will furnish, install, and recommend the winter/summer temperature settings for the HVAC equipment:

- For central HVAC equipment, the smart thermostat should be mounted in the main conditioned space as close to any central HVAC air returns and away from any supply vents.
- For window units, locate the smart thermostat on the opposite wall in the largest

room that is cooled by the unit.
- The smart thermostat should not be installed on exterior walls.
- Replace the existing wall switch plate with the wall smart thermostat.
- Educate resident on recommended winter/summer settings and how to adjust the smart thermostat.
- Install a maximum of one (1) wall smart thermostat per home.

Recommended Materials
- Must be Underwriters Laboratories (UL) listed.
- Must be fire resistant and precut to fit.
- Must be minimum 1/8" thick.
- Must be wireless and battery included.

5.4.3 WINTERIZATION KIT FOR WALL/WINDOW AC UNITS

Contractor will furnish and demonstrate the proper installation and use of the winterization kit for wall/window AC units:

- Locate all wall/window AC units in the home.
- Install the winterization kit on all wall/window AC units, if seasonably applicable and the system is not in operation. If the wall/window AC units are in operational mode, continue with educational component and leave the AC winterization kit with the residents.
- Educate the resident on proper installation techniques for the AC winterization kit on all wall/window units.
- Install or leave behind a maximum of three (3) winterization kits per home.

Recommended Materials
- A quilted AC cover designed to insulate and stop draft penetration.
- Must include installation instructions, weather stripping and removable tape.

5.5 HVAC MAINTENANCE

During the assessment, the contractor will perform a visual assessment of the HVAC system and make a recommendation for a basic system check. Home must be electrically heated and/or cooled to qualify for this measure.

The following represents the minimum requirement that must be performed by an approved HVAC Technician:

System Controls and Operation:

- Check thermostatic operation.
- Cycle all controls.
- Inspect for dirt and loose connections; clean and tighten, as necessary.
- Visually check all connections for refrigerant leaks.
- Check refrigerant pressure and add as needed.
- Check and record supply and return temperature.

Evaporator:

- Inspect coil assembly and drip pan.
- Clean coil and pan and flush, as necessary.
- Check drain line and blow out if necessary.
- Apply algae treatment as required.

Blower and Blower Drive:

- Oil blower motor if applicable.
- Check motor bearings.
- Check belt condition and tension; replace if necessary.
- Check blower cleanliness; clean if necessary.
- Check and record amp draw.
- Check drive and pulley alignment.
- Check for vibrations.

Condenser:

- Lubricate condenser fan motor, if applicable.
- Check motor bearings.
- Check coil condition for dirt build-up and clean, as necessary.
- Clean condenser as needed.

Compressor:

- Check electrical wire connections; clean and tighten where possible.
- Check operation and condition.
- Check and record operating amperage.

Heating System:

- Check electric heat strips.

5.5.1 CONTRACTOR REQUIREMENTS

Contractor must meet specifications as outlined in section 4.0.

5.6 DUCT LEAKAGE REPAIR

5.6.1 PARTICIPATION REQUIREMENTS

Contractor will determine if the home qualifies for an HVAC Duct Leakage Repair. Home must have a centrally ducted system to qualify for this measure.

Contractor will perform a visual inspection of the duct work. If not currently insulated or sealed, the contractor will arrange for a qualified HVAC Technician to install this measure.

1. The customer's duct system must be in adequate condition to accommodate the duct leakage repair.

2. The duct must be accessible for repair.

3. Homes must have centrally ducted electric cooling and electric heat.

4. Home must not contain any combustion appliances (including wood burning or gas fireplaces).

5. The Contractor will seal every joint and connection.

5.6.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations must meet manufacturers' instructions and specifications.

2. For conventional duct repair only mastic and fiber cloth or mastic with embedded fiber (mixed) may be used to seal the duct system. Tape may be used to hold the duct in place while the mastic is drying. If tape is used, the mastic must cover the tape completely and extend a minimum of 2" past the width of the tape. Mastic must meet Underwriters Laboratories (UL) 181 specifications for the material to which the mastic is being applied.

5.6.3 CONTRACTOR REQUIREMENTS

Contractor must meet specifications as outlined in section 4.0.

5.7 AIR-SEALING/INFILTRATION CONTROL MEASURES

5.7.1 WEATHER STRIPPING

Installed on exterior doors shall be aluminum and/or vinyl and/or metal with rubber gasket.

Recommended Materials

- Professional-grade weather stripping

5.7.2 DOOR SWEEPS

Installed on external doors must be triple flange.

Recommended Materials

- The height must be 2-3/8 inches.
- Extruded Aluminum with slotted holes for adjustment.
- Pliable vinyl triple seal with appropriate screws.

5.7.3 CAULKING

- Used on surfaces designated by the manufacturer.
- Must have a minimum life of twenty-five years.
- Must be acrylic latex or equivalent.

Recommended Materials

- Must be clear silicon acrylic caulk.
- Must stick to damp and dry surfaces with soap/water cleanup.
- Must dry clear, odor free and be paintable.
- Must not be oil or resin-based caulks.

5.7.4 FOAM INSULATION

Use on surfaces as designated by the manufacturer.

Recommended Materials

- One component, expanding, polyurethane, foam sealant.
- Must have strong adhesion quality-sticks to most surfaces.
- Must be Underwriters Laboratories (UL) classified.
- Must be environmentally safe and contain no CFCs or HCFCs.

5.7.5 HVAC FILTERS

Contractor will furnish and deliver twelve (12) filters for each central HVAC system.

- Locate all HVAC return grills with filters and note the size and location.
- Install a new filter in the main return grill.
- Leave customer with additional eleven (11) filters of the same size.
- If filter is of the permanent, washable type, clean filter.
- Educate the resident on the importance of replacing or cleaning these filters regularly.

Recommended Materials

- May be fiber glass or natural fiber.
- Must be Underwriters Laboratories (UL) classified.
- Must be a high-efficiency furnace/AC filter.
- Must have a minimum-efficiency rating value of four.

5.8 CEILING INSULATION

5.8.1 PARTICIPATION REQUIREMENTS

1. Insulation recommendations must be the recommendation of the contractor.

2. Eligible residences must have whole-house electric air conditioning and/or whole-house electric heating.

3. The weighted average R-value of the existing insulation over the total attic square footage (above conditioned space) must be R-2 or less. (**Exception:** May exclude conditioned area for a recent addition.)

4. Any home with "Knob and Tube Wiring" that is energized is not eligible.[1]

[1] National Electrical Code, Article 394

5.8.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. The insulation must be installed in accordance with the manufacturers' recommendations and specifications.

2. All installations must result in an insulation value equal to or greater than R-38.

3. Flat roofs must have enough space to allow a minimum of 3 inches of air space above the insulation after insulation has been installed to the recommended R-value.

4. The insulation must be installed in the unconditioned space as a direct application to the attic area over the conditioned space.

5. The insulation must have a minimum clearance around all recessed lighting and gas-fired appliances as required by state, county, and local codes.

6. The insulation must be installed uniformly, resulting in the same R-value throughout the entire area including knee walls.[2]

7. All attic access panels that are located in conditioned space must be insulated to a minimum R-value of 38 or as practical, and the insulation must be permanently attached.

8. Ceilings with a rise greater than 5 and a run of 12 (5 over 12 pitch) shall not be insulated with blown-in (loose-fill) insulation. Blown-in insulation shall not be used in attics where the distance from the top of the bottom chord of the truss or ceiling joist to the underside of the top chord of the trusses at the ridge is less than 30 inches and where obstructions to blown insulation exist (such as air conditioning ducts).[3]

5.8.3 CONTRACTOR REQUIREMENTS

1. The contractor must meet requirements as outlined in section 4.0.

2. The contractor will supply to the customer, in writing, the number of bags that will be installed and leave the customer an empty bag or manufacturers' literature in order to determine the required density of the insulation.

[2] Current Florida Building Code Section - Walls Considered Ceiling Area
[3] Current Florida Building Code Section - Ceilings With Blown-In Insulation

3. The contractor will sign and attach an R-value Certification Card to the attic joist visible from the attic access. The card shall contain, at a minimum, the following information:

   - Manufacturer's name
   - Insulation type
   - R-Value of insulation installed, thickness of insulation installed, and location of insulation installed.
   - Name and address of the Trade Ally installing the insulation.
   - Date of installation

6.0 INSTALLATION PROCESS

The energy assessment will begin with the Energy Specialist(s)' explanation of the process/program to the resident. Emphasis on educating the resident on each of the conservation measures is vital to making the improvements sustainable.

1. Identify the location and wattage of up to eight (8) high-use non-LED lights within the home to be replaced with energy-efficient bulbs of equivalent lumen output and note the locations installed. The energy savings potential of these bulbs will be communicated to the resident.

2. Measure the hot water temperature at the closest water faucet to the water heater and document the temperature. If the water temperature is above 120° F, they will recommend having the water heater thermostat set to a lower temperature and note the recommendation. Gas water heaters will not qualify for this measure. Additionally, any violation of the National Electrical Code will make a unit ineligible.

3. The water heater location and type will be identified as to its eligibility for the installation of a water heater wrap. Gas water heaters do not qualify for this measure. Additionally, any violation of the National Electrical Code will make a unit ineligible. If a water heater wrap is applicable, this wrap will be installed per the manufacturer's instructions. Verify that the water heater is electric, not leaking and meets code requirements.

4. Insulation will be installed on the hot and cold-water pipes to and from the electric water heater (5' on each side of the tank) as practicable. Gas water heaters do not qualify for this measure. Additionally, any violation of the National Electrical Code

will make a unit ineligible.

5. The general location of each shower head (maximum 2 per home) will be noted and replaced with an upgraded water-saving showerhead. The Energy Specialist(s) will also list any adapters required for this replacement.

6. The general location of each applicable faucet (maximum per home is 1 in the kitchen and 2 in the bathrooms) will be noted and a water-saving aerator will be installed.

7. Locate all central HVAC filter locations and note the size and location. Replace (1) HVAC filter as required. Leave customer with additional (11) filters of the same size. Educate the resident on the importance of replacing or cleaning these filters regularly. Up to 3 window air-conditioner filters are also eligible for replacement.

8. Inform the resident that a wall plate thermometer will be installed in the house. A location for the wall plate thermometer should be considered carefully. A location in the main conditioned space as close to any central HVAC air returns and away from any supply vents is best. For window units, locate the wall plate thermometer on the opposite wall in the largest room that is cooled by the unit. The wall plate thermometer should not be installed on exterior walls. Replace the existing wall switch plate with the wall plate thermometer. Explain to the resident that proper setting of the HVAC thermostat can result in significant savings on the power bill.

9. Install refrigerator thermometers in up to three (3) refrigerators/freezers in the house. Discuss the savings from the use of a refrigerator thermometer to keep food at the proper temperature with the resident.

10. Each penetration into the building envelope (HVAC chase, pipes, etc.) will be inspected for adequate seal. If needed, foam insulation will be added. Additionally, any broken windows will be noted and repaired with clear tape as practicable. The Energy Specialist(s) will discuss the impact of air infiltration on the customer's power bill.

11. Weather stripping, caulking and door sweeps will be specified for all exterior doors and window AC units as needed. The Energy Specialist(s) will install measures and discuss the impact of air infiltration around doors and window AC units on the customer's power bill.

12. Install the winter kit for wall/window AC units, if applicable. This kit will prevent operation of the HVAC unit until it is removed. Explain the proper operation of the kit

to the resident. Leave the kit with the customer if it is not the proper season to install on the unit.

13. Review the condition of the insulation in the attic and make recommendation to install enough to meet R-38 requirements. The Energy Specialist(s) will note if insulation is required and will make arrangements for the Insulation Contractor to make an appointment to install the insulation.

14. Review the condition of the whole house HVAC system and recommend an HVAC tune-up if required. This measure is available for central electric heat and/or central AC units. The Energy Specialist(s) will note the need for a tune up and will make arrangements with an HVAC Technician to get this service completed.

15. Review the condition of the duct work. If applicable, will make arrangements with an HVAC Technician to have the ducts sealed.

16. Document for the resident each of the measures that were installed in the home and reiterate the importance of each measure in saving energy and money. An explanation includes the benefits and instruction on the proper use and care of the NES measures.

    1. Educational materials outlining the installed measures, and their benefits will be provided.

    2. Other materials will also be provided by DEF that provide participants with specific energy saving tips.

17. The Energy Specialist(s) will also inform the resident that their home may be selected for inspection after all energy efficiency measures are installed.

7.0 INCENTIVES

7.1 CUSTOMER INCENTIVES

The program provides an array of benefits that are distributed directly to those homes within the qualifying NES program. The customer will begin to benefit immediately from those measures which were specifically recommended from the Home Energy Assessment and installed as part of the comprehensive package of electric conservation measures during the NES program. The comprehensive package of electric conservation measures

consists of the following which are provided at no cost to the resident:

- Light bulbs
- Water heater insulation wrap and insulation for water pipes.
- Water conservation shower head and faucet aerators
- Water heater temperature check
- 12 HVAC filters
- Indoor wall thermometer
- Window AC unit cover
- HVAC maintenance
- Attic insulation
- Duct sealing
- Air Infiltration measures to include caulking, weather stripping, door sweeps.

Additionally, the customer receives education on energy efficiency techniques and the promotion of behavioral changes to help reduce their energy usage and make these measures sustainable.

7.2 CONTRACTOR INCENTIVES

The contractor will submit the following information with all invoices (not to exceed forty-five (45) days from the date of installation):

- A completed copy of the installed measures with date as well as customer and installer's information for each DEF account
- Itemized invoice listing each of the completed DEF accounts, measures and cost based upon the agreed cost per measure installed.

8.0 REPORTING REQUIREMENTS

DEF will follow the reporting requirements consistent with Rule 25-17.0021(5), Florida Administrative Code.

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

LOW-INCOME WEATHERIZATION ASSISTANCE PROGRAM

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
LOW-INCOME WEATHERIZATION ASSISTANCE PROGRAM

1. PROGRAM OVERVIEW

Duke Energy Florida, LLC's (DEF) Low-income Weatherization Assistance Program is a custom energy conservation program. Through its partnerships with local weatherization providers, DEF provides education about energy saving opportunities and installs energy efficiency measures in homes of qualifying low-income customers. The program seeks to achieve the following goals:

1. Integrate DEF's program procedures with the Department of Economic Opportunity (DEO) and local weatherization providers (collectively referred to as "Agencies") to deliver energy efficiency measures to low-income families.

2. Identify and educate Agencies and low-income customers about energy saving opportunities to upgrade their home's energy efficiency.

3. Increase low-income families' participation in DEF's DSM programs.

4. Minimize "lost opportunities" in the existing marketplace.

2. ELIGIBILITY REQUIREMENTS

The eligibility requirements for DEF's program will align with the participating Agency's criteria or requirements for participation in their low-income services. Additional requirements are as follows:

1. The residence must be in DEF's service area and be a residential, metered customer with an active account.

2. All installations must be accessible for verification by a DEF representative.

3. Homes that have participated within the past ten years for the listed measures are not eligible for the same measure.

3. CONTRACTOR REQUIREMENTS

The Agencies are responsible for all work performed. Agencies may also use DEF participating contractors for attic insulation and duct testing/repair.

1. Agencies and their agents must have appropriate license(s) and comply with all appropriate federal, state, and local building and safety codes for all work performed.

2. All work performed must follow manufacturers' and DEF's specifications where applicable.

3. Agencies and their agents must correct any deficiencies found in the installation or materials identified by DEF.

4. Agencies shall indemnify and hold DEF harmless from any and all losses, liabilities, injuries, damage claims or costs whatsoever caused by items furnished or services rendered.

5. All DEF contractors shall indemnify and hold harmless DEF from any and all losses, liabilities, injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.

6. DEF requires a minimum of the following insurance policies be in force by all participating contractors:
    - Workman's Compensation as required by law.
    - General Contractual and Automobile Bodily Injury Liability: $100,000 per person and $300,000 per occurrence
    - General and Automobile Property Damage Liability: $100,000 per occurrence
    - General and Vehicle Liability policies endorsed: $100,000 per occurrence to provide blanket coverage.

4. EQUIPMENT/MATERIALS AND INSTALLATION SPECIFICATIONS

All materials and installation specifications shall meet or exceed the following guidelines:

- Equipment must meet manufacturers' specification and installation procedures.

- All work shall be performed to constitute a finished product.
- Materials shall be free of defects and covered under warranty for at least one year.
- Installation procedures must comply with all federal, state, and local codes.
- All equipment installations must meet manufacturer's instructions and specifications. Any contractor failing to meet manufacturer's specifications and DEF procedures may result in termination of participation in any or all DEF programs.

5. AGENCY RESPONSIBILITY

Agencies will be responsible for the following:

1. Qualify all participants using federal and state guidelines outlined in Section 2.
2. Follow the recommendations of the National Energy Audit Tool (NEAT), Agency assessment protocol or any DEF approved energy audit to determine eligible measures to be installed. Qualify and install measures by DEF's standards and procedures. All installations shall comply with DEF specifications (see Sections 4.2 through 10.2).
3. Provide DEF random access to the weatherized homes for program evaluation and inspection.
4. Deliver energy education to weatherization clients.
5. Invoice DEF for program approved installed measures on a monthly basis.

6. INCENTIVES AND ELIGIBLE MEASURES

Duke Energy will provide incentives for the following measures with the stipulation that all requirements and minimum levels are achieved where applicable:

Weatherization Measure	Minimum Measure Requirement	Maximum Incentive Amount	Additional Requirements
Attic Insulation	Insulate single-family homes with R2 or less up to R38 on residences with whole-house electric air conditioning and/or electric heating. Insulate single-family homes with R19 or less up to R38 on residences with whole-house electric air conditioning and/or electric heating.	$.50 per square foot up to a maximum of $1000 per home $.50 per square foot up to a maximum of $725 per home.	Must be a recommendation of a NEAT or DEF-approved audit, or Agency assessment protocol
Duct Leakage Test/ Repair	Repair Centrally Ducted Electric Heated and Cooled Systems in Single-family Homes	$175	Completed Duct Test and Repair
Reduce Air Infiltration	Must demonstrate a minimum reduction of 25% at 50 Pas in electrically heated homes. Not to exceed a minimum of 0.35 ACH in Single-family Homes.	$125	Must be a recommendation of a NEAT or DEF-approved audit, or Agency assessment protocol
Electric Hot Water Reduction	Wrap electric water heater, insulate water pipes, lower temperature setting if needed, repair water leaks	$48	Must be a recommendation of a NEAT or DEF-approved audit, or Agency assessment protocol
HVAC Maintenance	Tune up on Centrally Ducted Electric Heated and Cooled Systems for Single-family Homes	$175	Must be a recommendation of a NEAT or DEF-approved audit, or Agency assessment protocol

High Efficiency Heat Pump Replacing a Heat Pump	New HP for Single-family home must be a minimum 15 SEER and 8.8 HSPF	$475	Must be a recommendation of a NEAT or DEF-approved audit, or Agency assessment protocol. Incentive applicable on each new HP installed
High Efficiency Heat Pump Replacing Electric Resistance Heat	New HP for Single-family home must be a minimum 15 SEER and 8.8 HSPF	$475	
High Efficiency Central Air Conditioning	New High Efficiency Central Air Conditioner replacing less efficient Central Air Conditioner for Single-family home. New Air Conditioner must have a minimum cooling rating of 16 SEER.	$725	Must be a recommendation of a NEAT or DEF-approved audit, or Agency assessment protocol
Water Saving Showerheads	Maximum of 2.5 gallon per minute flow on homes with Electric Water Heaters	$7 per showerhead	Maximum of 2 per home
Energy-efficient Light Bulbs	Replace less efficient bulbs with 9W LEDs with similar lumen output. Replace less efficient specialty chandelier bulbs with 5W LED's	$4.00 per bulb $2.00 per bulb	Maximum of 6 light bulbs per household
Faucet Aerators	Water Flow Reduction on homes with Electric Water Heaters	$3 per Aerator	Maximum of 2 per household
Smart Power Strip	Smart Power Strip	$10 per Power Strip	Maximum of 1 per household
Refrigerator	Must be Energy Star rated	$125	1 per household

Notes:

1. Incentive amounts will be reviewed and compared to market prices annually and adjusted accordingly.

7. CEILING INSULATION

7.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements outlined in Section 2.0.
2. Must be a recommendation of a NEAT or DEF-approved audit, or Agency assessment protocol.
3. The home must be a single-family home and be at least two years old.
4. Eligible residences must have whole-house electric air conditioning and/or whole-house electric heating.
5. The total ceiling area to be insulated must be greater than 100 square feet.
6. Any home with "Knob and Tube Wiring" that is energized is not eligible. (Refer to: National Electrical Code, Article 324, Section 324-4).

7.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. The insulation must be installed in accordance with the manufacturer's recommendations and specifications.
2. All installations must result in an insulation value equal to or greater than R38.
3. Flat roofs must have enough space to allow a minimum of 3 inches of air space above the insulation after insulation has been installed to the recommended R-value.
4. The insulation must be installed in the unconditioned space as a direct application to the attic area over the conditioned space.
5. The insulation must have a minimum clearance around all recessed lighting and gas-fired appliances as required by State, County, and local codes.
6. The insulation must be installed uniformly, resulting in a minimum R-38 value throughout the entire area including knee walls. (Refer to: Florida Building Code Chapter 13, sub section 6 Section 604.1.A.1 Walls Considered Ceiling Area).

7. All attic access panels that are located in conditioned space must be insulated with a minimum R-38 batt permanently attached.

8. Radiant barriers will not be allowed as a substitute in the LIWAP.

9. Ceilings with a rise greater than 5 and a run of 12 (5 over 12 pitch) shall not be insulated with blown-in (loose fill) insulation. Blown-in insulation shall not be used in attics where the distance from the top of the bottom chord of the truss or ceiling joist to the underside of the top chord of the trusses at the ridge is less than 30 inches and where obstructions to blown insulation exist (such as air conditioning ducts). (Refer to: Florida Building Code Chapter 13, sub section 6 Section 604.1ABC.1.1 Ceilings with Blown-In Insulation).

7.3 CONTRACTOR REQUIREMENTS

1. Must meet the Contractor Requirements outlined in Section 2.1.

2. The contractor will supply to the customer, in writing, the number of bags installed and leave with the customer an empty bag or manufacturer's literature in order to determine the required density of the insulation.

3. The contractor will attach an R-value Certification Card signed by the insulation contractor or his representative to the attic joist visible from the attic access. The card shall contain, at a minimum, the following information:

    - Manufacturer's name
    - Insulation type
    - R-Value of insulation installed.
    - Thickness of insulation installed.
    - Location of insulation installed.
    - Name and address of the contractor installing the insulation.
    - Date of installation

8. DUCT LEAKAGE REPAIR

This program's duct repair is designed encourage weatherization providers to identify and repair duct leakage. Blower door or duct blaster equipment will be used as a diagnostic tool to locate duct leakage and provide quality control. This program component is available to

all residential customers with single-family homes having a centrally ducted system with electric heating and cooling, provided the duct system is easily accessible.

8.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements outlined in Section 2.0.

2. Repair recommendations must have been the result of a DEF-approved duct test, or follow the Agency approved protocol.

3. The customer's duct system and HVAC systems must be in adequate condition to accommodate the duct test, and not have been previously tested for the present occupant within a 5-year period.

4. The duct must be accessible for repair.

5. Homes must have centrally ducted electric cooling and electric heat. If non-space heating combustion appliances exist (i.e., water heater, stove, etc.), then the house must pass a safety test prior to any duct sealing.

8.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations must meet manufacturers' instructions and specifications.

2. Only mastic and fiber cloth or mastic with imbed fiber (mixed) may be used to seal the duct system. Duct tape may be used to hold the duct in place while the mastic is drying. If duct tape is used the mastic must cover the duct tape completely and extend a minimum of 2" past the width of the duct tape. Mastic must meet UL181 specifications for the material that the mastic is being applied to.

3. Blower door or duct blaster procedures must be followed as specified in training or manufacturer's instructions, unless otherwise directed by DEF when performing the duct test.

8.3 CONTRACTOR REQUIREMENTS

1. Must meet the Contractor Requirements outlined in Section 2.1.

2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning contractor.

3. All participating contractors must have attended and successfully completed a DEF-approved duct repair course. At a minimum, the training will consist of:
    - Training session on Building Science
    - Duct test applications (classroom and laboratory)
    - Duct test field applications.
    - Codes and standards as they relate to duct sealing.

4. Before any duct repairs can be made on homes with non-space heating combustion appliances, the contractor shall follow the procedures as written in Chapter 4 of the "Duct Doctoring" instruction manual provided by the Florida Solar Energy Center Duct Diagnostics Training Course. The only exception is line 36, which deals with drilling a hole in the customer's vent pipe. This is not required. Instead of this procedure, DEF has adopted the National Fuel Gas Code's "Appendix H: Recommended Procedure for Safety Inspection of an Existing Appliance Installation."

5. A list of DEF contractors will be furnished to local weatherization providers for duct testing and repair. Providers will contract directly with DEF duct repair contractors for repair work.

8.4 INSPECTION REQUIREMENTS

All inspectors must be trained in the area for which they are inspecting. If inspecting for the Duct Test and Leakage portion of this program, all inspectors must have attended and successfully completed the training offered by the Florida Solar Energy Center or similar course. At a minimum, the training will consist of:

- Training session on Building Science
- Duct test applications (classroom and laboratory)
- Duct test field applications.
- Codes and standards as they relate to duct sealing.

9. HIGH EFFICIENCY ELECTRIC HEAT PUMPS AND AIR CONDITIONERS

Promote the proper sizing and installation of high efficiency Heat Pump and Air Conditioning systems.

9.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements outlined in Section 2.0.

2. Must be a recommendation of a NEAT or DEF-approved audit, or Agency assessment protocol.

9.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations must meet manufacturers' instructions and specifications.

2. Installed equipment must be complete systems and shall be listed by Underwriters Laboratories or other nationally recognized testing laboratories in accordance with UL standards, as appropriate.

3. Both air handler and condensing units must be replaced.

4. The installed air handler/outdoor condensing unit combination must satisfy both the cooling and heating minimum efficiency requirements.

5. All equipment shall be new and not refurbished or have been previously installed or used.

6. Equipment efficiency ratings shall be obtained from a nationally recognized certification program directory or a manufacturer's rating certified to be in compliance with an approved Department of Energy (DOE) or Air Conditioning and Refrigeration Institute (ARI) rating procedure (standard 210/240-94). All cooling-mode efficiency ratings eligibility will be based on EER if available. (Note: If EER ratings are not available then SEER will be used to determine cooling-mode eligibility. All heating-mode efficiency ratings eligibility will be based on HSPF, except for water source units.)

7. If the unit is sized larger than one ton (12,000 BTU) per 500 square feet of conditioned space, a manual J or ASHRAE approved sizing calculation must be submitted. The contractor must certify that the unit was sized according to manufacturer specifications. Exception: Manufactured homes are exempted from this requirement.

8. The contractor will certify that the unit was sized according to manufacturer specifications.

9. Refrigerant charge and type shall be according to manufacturer's specifications and recommendations for the unit installed. The contractor will certify that the proper charge is installed, that the unit is tested and is leak free.

10. Contractors shall certify that the airflow meets the manufacturer's recommendations and specifications for the system installed.

11. Contractors shall certify that if the equipment installed has a scroll compressor (36,001 Btu or larger), that a hard start kit was installed either by the contractor or at the factory.

12. Return air filters shall be installed to meet manufacturer's specifications with no obstructions. Filters must be easily accessible, and the location shown to the customer.

13. The contractor shall check that the controlling thermostat is properly leveled, that the anticipator is properly set, and the thermometer is correct to within two degrees Fahrenheit.

14. The contractor will be encouraged to use mastic on all new connections.

15. Air handling units, mechanical closets and enclosed support platforms shall be sealed from unconditioned air.

16. Heat pump must be all electric.

9.3 CONTRACTOR REQUIREMENTS

1. Must meet Contractor Requirements outlined in Section 2.1.

2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning contractor in the jurisdiction having authority.

3. Contractors must demonstrate their capability to properly calculate heating and cooling loads by the Manual J method and to properly size and specify HVAC equipment.

4. The contractor must notify DEF within thirty (30) days if there was an emergency replacement due to equipment failure.

5. The Agency shall have six (6) months from date of installation to submit all "High Efficiency Equipment Forms" after which they will become ineligible for incentive.

10. HEATING AND AIR CONDITIONING MAINTENANCE (HVAC)

Heating and air conditioning maintenance is designed to increase energy efficiency through proper operation of mechanical equipment. Agencies are encouraged to identify HVAC systems that could benefit from service maintenance to avoid future breakdowns.

10.1 PARTICIPATION REQUIREMENTS

1. Must meet Eligibility Requirements outlined in Section 2.0.

2. Must have centrally ducted electric heating and cooling.
3. Must be a recommendation of a NEAT or DEF-approved audit, or Agency assessment protocol.

10.2 EQUIPMENT/SERVICE AND INSTALLATION SPECIFICATIONS

The following represents the minimum requirement that must be performed by an approved contractor:

Filter:

- Inspect and clean filters.
- Replace up to one throw-away filter.
- Replace specialty filters if provided by customer.

System Controls and Operation:

- Check thermostatic operation.
- Cycle all controls.
- Inspect for dirt and loose connections; clean and tighten, as necessary.
- Visually check all connections for refrigerant leaks
- Check refrigerant pressure and add as needed.
- Check and record supply and return temperature.

Evaporator:

- Inspect coil assembly and drip pan.
- Clean coil and pan and flush, as necessary.
- Check drain line and blow out if necessary.

- Apply algae treatment as required.

Blower and Blower Drive:

- Oil blower motor if applicable.
- Check motor bearings.
- Check belt condition and tension; replace if necessary.
- Check blower cleanliness; clean if necessary.
- Check and record amp draw.
- Check drive and pulley alignment.
- Check for vibrations.

Condenser:

- Lubricate condenser fan motor, if applicable
- Check motor bearings.
- Check coil condition for dirt build-up and clean, as necessary.
- Clean condenser as needed.

Compressor:

- Check electrical wire connections; clean and tighten where possible.
- Check operation and condition.
- Check and record operating amperage.

Heating System:

- Check electric heat strips.

10.3 CONTRACTOR REQUIREMENTS

Must meet Contractor Requirements in Sections 2.1 and 6.3.

11. WATER HEATER

It is the intent of this portion of the program to save energy through adding additional insulation to older water heaters, set back temperatures, insulate pipes, and replace older less efficient water heaters and help defray the cost of a new high-efficient water heater.

11.1 PARTICIPATION REQUIREMENTS

1. Must meet Eligibility Requirements outlined in Section 2.0.

2. Must be a recommendation of a NEAT or DEF approved audit, or Agency assessment protocol.

3. Must have an electric water heater.

11.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. Sides must be wrapped with a minimum Insulation level equal to R-6 or greater.

2. Top must be insulated to an R-8 or greater.

3. Pipes shall be insulated up to 3-foot minimum.

11.3 CONTRACTOR REQUIREMENTS

Must meet Contractor Requirements outlined in Section 2.1.

12. AIR INFILTRATION REDUCTION

It is the intent of this portion of the program to save energy through reduction of unintended air infiltration into conditioned spaces of older homes.

12.1 PARTICIPATION REQUIREMENTS

1. Must meet Eligibility Requirements outlined in Section 2.0.

2. Must be a recommendation from a NEAT or DEF-approved audit, or Agency assessment protocol.

3. Must be able to achieve an infiltration reduction of at least 25% at 50 Pa’s.

4. Home must meet ASHRA Standard 90.2 as a minimum air infiltration level once infiltration sealing is completed.

12.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

Contractor must use a blower door and a manometer for precise pressure measurements.

12.3 CONTRACTOR REQUIREMENTS

Must meet Contractor Requirements outlined in Section 2.1 and 6.3.

13. LED BULBS, WATER SAVING SHOWERHEADS AND FAUCET AERATORS

13.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements outlined in Section 2.0.
2. Must be a recommendation from a NEAT or DEF-approved audit, or Agency assessment protocol.

Measure	Participation Requirements	Equipment and Installation Specifications
Water Saving Showerhead	• Electric Water Heater • Current showerhead flow of 3.5 gallon per minute or greater	• Must meet manufacturer's specifications
Light Bulbs	• Operation of less efficient bulbs a minimum of 3 hours per day.	• LED bulbs with similar lumen output installed in accordance with manufacturer's specifications.
Faucet aerators	• No aerators currently installed	• Must meet manufacturer's specifications. • Threads must be compatible with existing faucet threads

13.2 CONTRACTOR REQUIREMENTS

Must meet the Contractor Requirements outlined in Section 2.1.

14. REFRIGERATOR REPLACEMENT

14.1 PARTICIPATION REQUIREMENTS

1. Must meet Eligibility Requirements outlined in Section 2.0.

2. Must be a recommendation from a NEAT or DEF-approved audit, or Agency assessment protocol.

14.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. New refrigerator must be Energy Star rated.

2. Old refrigerator must be decommissioned and recycled appropriately.

3. Old refrigerator must be metered for 2 hours w/o defrost cycle or metered for 24 hours to make sure that usage is over 900 kWh per year.

4. Replacement refrigerator must be top freezer, no through the door ice maker, no water dispenser, white or black, 18 to 21 cubic feet.

14.3 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements outlined in section 2.1.

2. Contractor is responsible for removing old refrigerator from home and will put a hole through old unit and/or cut the cord so it cannot be reused.

15. INCENTIVE PROCESSING

Incentives will be paid directly to the Agencies. Agencies are required to submit the following information along with all invoices by the tenth workday of each month (not to exceed forty-five (45) days from the date of installation):

- Customer information - including name, address, and DEF account number.
- A list of installed measures and, where appropriate, pre-existing conditions
- Itemized invoice with a brief description of installed measures (incentive measures only) and program incentive for each weatherized home, or the DEF/LIWAP data information form

If the home is not selected for inspection, or after it has passed inspection, invoices will be processed for payment. DEF will input installed measures and paid incentives to a data base system. Submitted reports and invoices will be maintained on file.

16. REPORTING REQUIREMENTS

DEF will follow the reporting requirements consistent with Rule 25-17.0021(5), Florida Administrative Code.

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

RESIDENTIAL LOAD MANAGEMENT PROGRAM

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
RESIDENTIAL LOAD MANAGEMENT PROGRAM

1. PROGRAM OVERVIEW

The Residential Load Management (RLM) program is a direct load control program of Duke Energy Florida, LLC (DEF). This program is designed to reduce DEF's demand during peak or emergency conditions by temporarily interrupting service to selected customer electrical equipment, for example, central heating and cooling systems, electric water heaters connected via internet-based communication, and swimming pool pumps.

2. ELIGIBILITY REQUIREMENTS

1. The program is available to residential customers in DEF's service area. DEF must have the ability to control the customer's load per the terms of the applicable RLM rate schedule.

2. The customer must be eligible for Residential Service under Rate Schedule RS-1, RSL-1, or LMR-1

3. Various types of devices may be used to control the customer's load, including both customer-owned and company-owned devices. The Company must be allowed reasonable access to the customer's premises to install, maintain, inspect, test and remove any company-owned devices.

3. PARTICIPATION REQUIREMENTS

The program participation requirements and participation options are as specified in the applicable RLM rate schedules.

4. EQUIPMENT AND INSTALLATION REQUIREMENTS

All installations must comply with all provisions of the National Electric Code (NEC) and any code or requirement of other authorities having jurisdiction.

When required, a DEF-approved, licensed contractor must complete all work. The contractor shall comply with all RLM program participation standards as specified by DEF in the most current copy of the Energy Management Operations Manual.

The company or assigned representative may require an inspection of the company-owned load management devices installed at the premise to ensure the equipment is connected, not tampered with, or disconnected without notice and operating properly prior to instating or reinstating bill credits on the account. If access cannot be obtained, service may be discontinued, and the customer billed for all prior load management credits received over a period not in excess of six months.

5. CONTRACTOR REQUIREMENTS

1. Contractors must meet the financial criteria set forth in the DEF Purchasing Standards for contractors doing business with DEF.

2. DEF reserves the right to request background checks of contractors participating in the RLM program.

3. Contractors must be insured per minimum specifications detailed within the Demand Side Management Contractor Participation Agreement.

4. Contractor is responsible for providing supervision of its employees and the necessary tools and equipment to meet program specifications by required completion date.

6. INCENTIVES

Customer incentives will be provided per the terms of the applicable RLM rate schedule.

7. REPORTING REQUIREMENTS

The reporting requirements for this program will follow Rule 25-17.0021(5) of the Florida Administrative Code.

II. NON-RESIDENTIAL CONSERVATION PROGRAMS

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

BUSINESS ENERGY CHECK PROGRAM

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
BUSINESS ENERGY CHECK PROGRAM

1. PROGRAM OVERVIEW

The Business Energy Check program of Duke Energy Florida, LLC (DEF) provides energy audits and assessments for non-residential customers. This program is designed to provide information to customers about their energy usage and identify opportunities for energy savings. The program can serve as a foundation for participation in other non-residential DSM programs.

The program provides energy evaluations to non-residential customers at no charge to the customer. These evaluations may include a billing analysis, information and educational material about energy saving practices and measures, recommendations for energy savings which may include operational changes or equipment modifications, and information about incentives and savings that may be available through other DEF programs.

The program offers multiple types of energy evaluations to non-residential customers including walk-through audits, phone-assisted audits along with educational information, and an online customer assessment tool.

2. ELIGIBILITY REQUIREMENTS

The customer must be a non-residential customer located in DEF's service territory and served by a metered DEF account.

3. INCENTIVES

DEF may periodically offer an incentive to customers who participate in the program, such as a Non-residential Energy Efficiency Kit. Items in the kit could change over time as codes increase.

4. REPORTING REQUIREMENTS

The reporting requirements for this program will follow Rule 25-17.0021(5), Florida Administrative Code.

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

SMART $AVER PROGRAM

(f/k/a BETTER BUSINESS PROGRAM)

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
SMART $AVER PROGRAM
(f/k/a BETTER BUSINESS PROGRAM)

1. PROGRAM OVERVIEW

The Smart $aver program is an "umbrella" program designed to improve the energy efficiency of non-residential facilities. The program seeks to meet the following overall goals:

- Provide customers with a cost-effective portfolio of measures across all building types.
- Improve customer-energy savings and demand reduction through the installation of energy-efficient equipment and thermal envelope upgrades.
- Educate customers regarding best practices, innovative technologies, and opportunities to manage energy consumption.

2. ELIGIBILITY REQUIREMENTS

1. Equipment and measures must be installed in facilities that are located in the DEF service territory and served by a non-residential metered DEF account.

2. Non-residential multi-family is defined as non-residential metered accounts of multi-family residential apartments or condominiums, or non-residential metered accounts of assisted living residential apartment units. Any multi-family residential dwellings that are master metered (referred to as "Domestic/Non-residential") shall be eligible to participate in this program.

3. DEF must be permitted to inspect the installation of all measures and equipment prior to issuing any incentive payment over a certain amount or post installation for mandated inspections.

3. CONTRACTOR REQUIREMENTS

3.1. REQUIREMENTS FOR PARTICIPATING DEF CONTRACTORS (a/k/a Contractors under contract with DEF)

1. All Contractors must comply with DEF Contractor training, procedures, and manufacturers' specifications specific to the portion of the program for which they are participating. Failure to do so may result in termination of participation in any or all DEF programs.

2. The Contractor is responsible for the work to be performed, the supervision of their employees and the use of Contractor's own equipment to meet the work specifications and completion date.

3. The Contractor must correct any deficiency found in the installation or product when advised by a DEF representative and notify the DEF representative of compliance within thirty (30) days.

4. The Contractor shall notify DEF of any incident occurring during installation of a program measure or any follow-up procedure within twenty-four (24) hours of the incident.

5. The Contractor shall indemnify and hold DEF harmless against any and all injuries, damages, claims, or costs caused by items furnished or services rendered by the Contractor and/or its employees.

6. The Contractor must comply with all Federal, State, and local codes and regulations and have the appropriate permits and license(s) for the work.

7. The Contractor must provide documentation of and maintain in force the following types of insurance coverage. The Contractor must maintain coverage that meets the greater of the minimum coverage required by the State for license retention or the minimum coverage requirements specified in the Contractor agreement. This applies to all Program measures:

    • Workman's Compensation
    • General Contractual and Automobile Bodily Injury Liability
    • General and Automobile Property Damage Liability

• General and Vehicle Liability

3.1. CUSTOMER CHOSEN CONTRACTOR REQUIREMENTS

If the customer selects their own Contractor or certified facility management employee, it is their responsibility to make sure the installation complies with all federal, state, and local codes and regulations and have the appropriate license(s)/Certifications for the work to be performed if required.

The contractor/customer is responsible for the work to be performed, the supervision of their employees, and the use of contractors'/customer's own equipment to meet the work specifications and completion date.

The contractor/customer must follow manufacturers' specifications and procedures.

3.2 INSPECTIONS

Customer participation in Duke Energy programs is an agreement to allow Duke Energy access to sites for inspections as required by the Public Service Commission or in performance of measure qualifications.

4. INCENTIVE

Should the need arise, and utilizing available marketing dollars, DEF may periodically offer a monetary incentive to specified vendors and existing customers who are asked to participate in the marketing of the program.

Caps placed on measures could be increased/lessened or removed to encourage customer participation as needed year to year.

The incentive payments for below qualifying measures are as follows:

Program Component	**Incentive**
Building Envelope Improvements	

Wall Insulation	$0.20 per square foot to bring the level to ≥R20. (Retrofit only) (other requirements apply)
Cool Roof	$0.15 per square-foot Roof Product with $0.76 or greater initial solar reflectance installed meeting specified requirements listed in the roofing section $50,000 per building limit.
HVAC Equipment Replacement	
Air-Cooled and Water-Cooled Electric Chillers	$25 per ton for qualifying equipment as referenced in Chiller section and meeting efficiency requirements
Heat Pumps ≤ 65,000 Btu/h replacing resistance heat	$100 per ton for minimum cooling efficiency of 16.0 SEER/15.2 SEER2 and minimum heating efficiency of 9.0 HSPF/7.5 HSPF2
Heat Pumps < 65,000 Btu/h replacing Heat Pumps	$75 per ton for minimum cooling efficiency of 16.0 SEER/15.2 SEER2 and minimum heating efficiency of 9.0 HSPF/7.5 HSPF2
High Eff AC < 65,000 Btu/h replacing existing AC	$50 per ton for minimum cooling efficiency of 16.0 SEER/15.2 SEER2
Package Terminal Heat Pumps and Air Conditioners (PTHPs/PTACs)	$100 per ton per specifications referenced in Packaged Terminal equipment section meeting required efficiencies
Single Package Vertical Heat Pump (SPVHP)	$50 per ton meeting required efficiencies
Ductless Mini-Split AC	$100 per ton of HVAC meeting required efficiencies
Ductless Mini-Split Heat Pump	$200 Per Ton of Heat Pump meeting required efficiencies
Unitary A/C and Heat Pumps > 65,000 Btu/h	$50 per ton per meeting required efficiencies*(Includes Variable Refrigerant and Multi-Split A/C and HP)
Water Source Heat Pumps	$40 per Ton meeting required efficiencies

VFD on Cooling Tower Fans	$65 per HP not to exceed 50% of VFD costs
VFD on HVAC Pump Motors	$65 per HP not to exceed 50% of VFD costs
Advanced Rooftop Controller	$150 per ton of controlled HVAC Meeting requirements Incentive not to exceed 50% of project costs
HVAC System Related Improvements	
Demand Control Ventilation	$0.10 per sq ft with properly designed and installed DCV controls and programming. Note: Incentives for DCV are not to exceed 50% of total project or service cost
Duct Test	50% of test cost up to $50 for first unit tested (customer pays $50 and Duke Energy pays $50)
	50% of test cost up to $40 for each additional unit tested at same address (customer pays $40 and Duke Energy pays $40)
Duct Repair	$0.29 cents per sq ft. Up to $725 per unit sealed
Energy Recovery Ventilation	$0.97 per sq ft, minimum 500CFM unit >65% total heating effectiveness per AHRI Standards Caps may apply to incentive payout
HVAC PTHP/PTAC Coil Cleaning	$20 per unit (PTHP/PTAC)
HVAC (DX Tune Up	One-time incentive $25 per ton Incentive not to exceed 50% of project cost
HVAC Chiller Tune Up	$15 per ton - Must meet specific requirements. Incentive not to exceed 50% of project cost
Smart Thermostat	$100 per thermostat installed on HVAC systems. Some limitations may be applied

Lighting and Controls	
Occupancy Sensors	$0.07 cents per watt controlled. Must meet requirements listed in Lighting section
LED Exterior Wall Packs	$1.42 per Watt for LED Wall Pack Must meet requirements listed in Lighting section
Refrigerated Display Case LED Lighting	$15 per 60" Refrigerated Case LED Strip Must meet requirements listed in Lighting section
LED Linear - 2x4 Fixture Replacement	$30 per fixture - 2x4 LED Troffer Must meet requirements listed in Lighting section
LED Exit Sign	$2.00 per Watt Single-Sided LED Exit Sign Must meet requirements listed in Lighting section

***** Note that if provided funds are available, DEF may choose to increase incentives on specific measures above in an effort to enhance acceptance in the marketplace. *****
******Maximum incentive pay out could be adjusted ******

4.1 INCENTIVE PROCESSING

1. On-site inspections will be performed on at least 10% of the completed projects in the program.

2. Project supporting documents will be collected and reviewed for program compliance.

3. Incentives will not be paid until the review (and inspection when required) is completed.

4. A copy of the customer's invoice, purchase order, or equivalent (determined by DEF) must accompany the incentive application for all measures and must be received within six (6) months of the completion of that measure. For a new construction measure, the supporting documentation must be received within six (6) months of the Certificate of Occupancy or permanent meter set.

5. The customer will receive the incentive in the form of a rebate check or other deemed payment method. The DEF personnel will need to obtain the customer's Tax ID#. Any customer receiving over $600 cumulative total during a year will receive an IRS 1099 form from DEF or its representative reporting to the customer and the IRS the total amount of the rebates received.

5. REPORTING REQUIREMENTS

The reporting requirements for this program will follow Rule 25-17.0021(5), Florida Administrative Code.

6. CEILING INSULATION

6.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. Building must be at least two (2) years old in order to qualify for an incentive.

3. The weighted average R-value of the existing insulation over the total ceiling square footage (above conditioned space) must be less than or equal to R-12. (**Exception:** May exclude conditioned area for a recent addition.)

4. Eligible facilities must have both electric (non-portable) air conditioning and electric (non-portable) heating.

5. A Business Energy Check or other pre-qualification methods (as determined by DEF) is required prior to installation to establish existing insulation levels.

6. Any structure that has in the past utilized this portion of the program (attic insulation) is not eligible to participate again. However, if that structure, through an act of God, loses the insulation and this loss is not covered by insurance, then the structure would be eligible to participate a second time. It is the customer's responsibility to provide DEF with a letter from their insurance company stating that the insulation loss was not covered by insurance.

7. Any building with "Knob and Tube Wiring" must be documented or certified as not energized by a state-licensed electrician. *(National Electrical Code 1990, Article 324, Section 324-4).*

8. Non-residential multi-family units will be qualified as individual units for incentive purposes. For multi-family units greater than one story in height, the top floor only will be eligible for incentives.

6.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. The insulation must be installed in accordance with the manufacturers' recommendations and specifications and must meet all state, county, and local codes.

2. Flat roofs must have enough space to allow a minimum of 3 inches of air space above the insulation after insulation has been installed to the recommended R-value.

3. The insulation must be installed in the unconditioned space as a direct application to the attic area over the conditioned space.

4. The insulation must have a minimum clearance around all recessed lighting and gas-fired appliances as required by state, county, and local codes.

5. The insulation must be installed uniformly, resulting in the same R-value average of at least an R 38 throughout the entire area.

6. All attic access panels that are located in conditioned space must be insulated in the same minimum R-value as throughout the entire area and permanently attached.

6.3 CONTRACTOR REQUIREMENTS

1. DEF participating contractors must meet the contractor requirements outlined in Section 3.1. Customer chosen contractors must meet the contractor requirements as outlined in Section 3.2.

2. The contractor will attach an R-Value Certification Card signed by the insulation contractor or his representative to the attic joist visible from the attic access. The card shall contain, at a minimum, the following information:

    - Manufacturer's name

- Insulation type
- R-Value, the thickness, and the location of the insulation installed.
- Name and address of the contractor installing the insulation.
- Date of installation

7. WALL INSULATION

7.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. Buildings must be at least two (2) years old in order to qualify for an incentive.

3. The weighted average R-value of the existing insulation must be less than or equal to R-16. (**Exception:** May exclude conditioned area for a recent addition.)

4. Eligible facilities must have both electric (non-portable) air conditioning and electric (non-portable) heating. This is retrofit measure only; new construction projects are not eligible.

5. A Business Energy Check or other pre-qualification methods (as determined by DEF) is required prior to installation to establish existing insulation levels.

6. Any structure that has in the past utilized this portion of the program (Wall insulation) is not eligible to participate again. However, if that structure, through an act of God, loses the insulation and this loss is not covered by insurance, then the structure would be eligible to participate a second time. It is the customer's responsibility to provide DEF with a letter from their insurance company stating that the insulation loss was not covered by insurance.

7. Any building with "Knob and Tube Wiring" must be documented or certified as not energized by a state-licensed electrician. *(National Electrical Code 1990, Article 324, Section 324-4).*

7.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. The insulation must be installed in accordance with the manufacturers' recommendations and specifications and must meet all state, county, and local codes.

2. The insulation must be installed uniformly, resulting in the same R-value greater than or equal to 21 throughout each area.

3. All attic access panels that are located in conditioned space must be insulated in the same minimum R-value as throughout the entire area and permanently attached.

4. Improvements to wall insulation in existing non-residential buildings, after retrofit, needs to meet or exceed the ASHRAE Standard 90.1-2010 R-value.

7.3 CONTRACTOR REQUIREMENTS

1. DEF participating contractors must meet the contractor requirements outlined in Section 3.1. Customer chosen contractors must meet the contractor requirements as outlined in Section 3.2.

2. The contractor will provide all required documentation by the insulation contractor or his representative to the customer.

    - Manufacturer's name
    - Insulation type
    - R-Value, the thickness, and the location of the insulation installed.
    - Name and address of the contractor installing the insulation.
    - Date of installation

3. All participating Trade Allies in the Wall Insulation Program must follow DEF Code of Ethics.

8. COOL ROOF

8.1 PARTICIPATION REQUIREMENTS

1. The account must meet the Eligibility Requirements as outlined in Section 2

2. The customer must provide proof of the installation of the approved roof products including documentation of project cost and project completion date. This requirement

is typically met by submitting copies of invoices. Documentation must also be provided indicating the total square footage over air-conditioned space.

3. The roof product must be tested using the ASTM E 903 or ASTM C 1549 test or ASTM E1918 or CRRC-1 standards and must be certified as having an Initial Solar Reflectance Rating greater than or equal to 0.76. Proof of certification by either Energy Star or the Cool Roof Rating Council must be attached to the incentive form.

4. Product must be installed by a licensed contractor or qualified/certified personnel.

5. The cooling system for the facility must be all electric.

HVAC EQUIPMENT

9. AIR-COOLED AND WATER-COOLED ELECTRIC CHILLERS

9.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. The customer must provide proof of HVAC project cost, project completion date and an itemized inventory of equipment installed. This requirement is typically met by submitting copies of invoices or purchase orders.

3. Air Conditioning, Heating and Refrigeration Institute (AHRI) certified efficiency data at Standard Rating Conditions must be attached to the incentive form. If AHRI sheet cannot be obtained, documentation must be provided indicating that the equipment was tested to the AHRI 550/590 Test Standard or AHRI required standards. DEF will default to AHRI ratings for tonnage of the equipment being approve.

9.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. Equipment efficiency ratings shall be obtained from a nationally recognized certification program directory or a manufacturers' rating certified to be in compliance with an approved Department of Energy (DOE) or Air Conditioning, Heating and Refrigeration Institute (AHRI) rating procedure. Accepted Efficiency ratings are either Full Load (FL) or Integral Partial Load Value (IPLV).

2. All equipment for which an incentive is paid shall be new and not refurbished, previously installed, or used.

3. All equipment installations shall exceed the efficiency requirements set by federal, state, and local code by a DEF specified minimum.

4. HVAC equipment must be all electric.

9.3 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements as outlined in Section 3.1. If a customer chosen contractor, the contractor must meet the contractor requirements as outlined in Section 3.2.

2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning Contractor in the jurisdiction having authority.

10. SMALL HEAT PUMPS and Straight Cool HVAC (≤ 65,000 Btu/h)

10.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. The customer must provide proof of HVAC project cost, project completion date and an itemized inventory of equipment installed. This requirement is typically met by submitting copies of invoices or purchase orders.

3. Air Conditioning, Heating and Refrigeration Institute (AHRI) certified efficiency data at Standard Rating Conditions must be attached to the incentive form.

10.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. Installed equipment must be complete systems (i.e., both air handler and outdoor condensing units must be replaced in order to qualify for an incentive), including any supplemental devices, and shall be listed by Underwriters Laboratories (UL) or other nationally recognized testing laboratories in accordance with UL standards as appropriate. (Includes Geothermal units)

2. All equipment installations must meet manufacturers' instructions and specifications and meet all state, county, and local codes.

3. All equipment shall be new and not refurbished, previously installed, or used.

4. Data/Server Rooms will be evaluated under the appropriate code on a per case basis.

5. The installed air handler/outdoor condensing unit combination must satisfy both the cooling, and the heating minimum efficiency requirements as set by DEF.

6. Equipment efficiency ratings shall be obtained from a nationally recognized certification program directory or a manufacturer's rating certified to be in compliance with an approved Department of Energy (DOE) or Air Conditioning, Heating and Refrigeration Institute (AHRI) rating procedure (standard 210/240-2023). All cooling-mode efficiency ratings eligibility will be based on EER2 if available. If EER2 ratings are not available, then SEER2 will be used to determine cooling-mode eligibility. All heating-mode efficiency ratings eligibility will be based on HSPF2.

7. The contractor will be encouraged to use mastic on all new connections.

8. Air handling units, mechanical closets and enclosed support platforms shall be sealed from unconditioned air.

9. Heat pumps must be all electric.

10.3 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements as outlined in Section 3.1. If a customer chosen contractor, the contractor must meet the contractor requirements as outlined in Section 3.2.

2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning Contractor in the jurisdiction having authority.

11. PACKAGE TERMINAL HEAT PUMPS (PTHPs) REPLACING PTAC's and PTAC's REPLACING LESS EFFICIENT PTAC's

11.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. The customer must provide proof of HVAC project cost, project completion date and an itemized inventory of equipment installed and site location installation. This qualification is typically met by submitting copies of invoices or purchase orders.

3. Air Conditioning, Heating and Refrigeration Institute (AHRI) certified efficiency data at Standard Rating Conditions must accompany the incentive form.

11.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations shall exceed the minimum efficiency requirements set by federal, state, and local code by6-10 to allow for equipment availability.

2. Equipment efficiency ratings shall be obtained from a nationally recognized certification program directory or a manufacturer's rating certified to be in compliance with an approved DOE or AHRI rating procedure.

3. All equipment installations must meet manufacturers' instructions and specifications and meet all state, county, and local codes.

4. All equipment shall be new and not refurbished, previously installed, or used.

5. Package Terminal Heat pump and PTAC must be all electric.

11.3 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements as outlined in Section 3.1 or 3.2.

2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning Contractor in the jurisdiction having authority.

12. LARGE UNITARY A/C AND HEAT PUMPS (> 65,000 Btu/h)

***Also includes variable refrigerant flow multi split AC and Heat Pumps of all sizes**
Ductless Mini-Split Units, Single Packaged Vertical, Water Source Heat Pumps

12.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility requirements as outlined in Section 2.

2. The customer must provide proof of HVAC project cost, project completion date and an itemized inventory of equipment installed. This qualification is typically met by submitting copies of invoices or purchase orders.

3. Air Conditioning, Heating and Refrigeration Institute (AHRI) certified efficiency data, or equivalent (determined by DEF representative), at Standard Rating Conditions must be attached to the incentive form.

12.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations shall exceed the minimum efficiency requirements set by federal, state, county, and local code by DEF specified minimum Installed equipment must be complete systems including any supplemental devices and shall be listed by Underwriters Laboratories (UL), or other nationally recognized testing laboratories in accordance with Underwriters Laboratories (UL) standards, as appropriate.

2. Equipment efficiency ratings shall be obtained from a nationally recognized certification program directory or a manufacturer's rating certified to be in compliance with an approved DOE or AHRI rating procedure (AHRI 210/240-94 for less than 135,000 Btu/h and AHRI 340/360 for units greater than 135,000 Btu/h). If Minimum Efficiency Rating cannot be attained by a nationally recognized testing laboratory or be qualified by manufactures ratings, Duke reserves the right to not incentivize equipment.

3. All equipment installations shall meet manufacturers' instructions and specifications and meet all state, county, and local codes.

4. All equipment shall be new and not refurbished, previously installed, or used.

5. The contractor will be encouraged to use Mastic on all new connections.

6. Air handling units, mechanical closets and enclosed support platforms shall be sealed from unconditioned air.

7. HVAC equipment must be all electric.

12.3 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements as outlined in Section 3.1 or 3.2.

2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning Contractor in the jurisdiction having authority.

HVAC SYSTEM RELATED IMPROVEMENTS

13. DEMAND CONTROL VENTILATION (DCV)

13.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. Customer must provide documentation of the DCV system and provide square footage of the conditioned space.

13.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. DCV must include sensors that measure CO_2 levels (or other approved methods) and adjusts ventilation rate in spaces with varying occupancy through integrating sensor readings to control the outside air dampers.

2. Installation of DCV system and sensors shall be in accordance with the manufacturers' recommendations and specifications and meet all state, county, and local codes.

3. Commissioning the DCV system is recommended to ensure the ventilation system is working properly with the HVAC computer and sensors.

13.3 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements as outlined in Section 3.1. If a customer-chosen contractor, the contractor must meet the contractor requirements as outlined in Section 3.2.

2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning Contractor in the jurisdiction having authority.

14. DUCT TEST AND LEAKAGE REPAIR

14.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. Repair recommendations must have been the result of a DEF-approved duct test. (**Exception:** If during an energy audit or prior to duct test, the DEF representative validates the need for complete duct system replacement, a duct test is not required).

3. The customer's duct system must be in adequate condition to accommodate the duct test to be performed and not have been previously tested for the present occupant within a 5-year period. (**Exception:** Duct systems altered as a result of remodeled or added conditioned area.)

4. The duct must be easily accessible for repair. (Exception: aerosol sealing method.)

5. Non-residential, multi-family units will be qualified as individual units for incentive purposes. Multi-family units greater than one story in height may only have the top floor duct system(s) repaired.

6. All facilities must have centrally ducted electric cooling and electric heat. If non-space heating combustion appliances exist, then the facility must pass a safety test prior to any duct sealing.

7. Duct and HVAC systems must be in adequate condition to accommodate duct leakage repair.

8. A minimum of 60 CFM @ 25 Pa's of leakage per ton of HVAC equipment capacity and a minimum of 60% of the leakage sealed is the baseline for participation in aerosol duct sealing.

14.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations must meet manufacturers' instructions and specifications and meet all state, county, and local codes.

2. For conventional duct repair only, mastic and fiber cloth or mastic with embedded fiber (mixed) may be used to seal the duct system. Tape may be used to hold the duct in place while the mastic is drying. If tape is used, the mastic must cover the tape completely and extend a minimum of 2" past the width of the tape. Mastic must meet Underwriters Laboratories (UL) 181 specifications for the material that the mastic being applied to.

3. Blower door or duct blaster procedures must be followed as specified in training, or manufacturers' instructions, unless otherwise directed by DEF when performing the duct test.

4. Aerosol procedures must be followed as specified in training or manufacturers' instructions and will include:

    - Complete pre-seal and post-seal leakage test using approved aerosol software.
    - Aerosol sealants shall meet the requirements of Underwriters Laboratories (UL) 723.
    - Seal all boot-to-ceiling and/or floor connections.
    - All areas of the duct system will be evaluated, and cost-effective leaks will be sealed by conventional (6.2.2) or aerosol method.
    - Complete post-seal leakage test using approved aerosol software.

14.3 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements as outlined in Section 3.1. If a customer-chosen contractor, the contractor must meet the contractor requirements as outlined in Section 3.2.

2. Must be a licensed Mechanical Contractor, or a Class A, B, or C Air-Conditioning contractor in the jurisdiction having authority.

3. All participating contractors must have attended and successfully completed a DEF-approved duct repair course.

4. In Non-residential, multi-family units, the contractor shall seal all joints and connections of the duct work, and no duct test is required. Multi- family units greater than one story in height may only have the top floor duct system(s) repaired. No

combustion appliances (fireplaces, water heating, etc.) are allowed for multi-family due to safety concerns.

14.4 INSPECTION REQUIRMENTS

1. Customer must allow Duke Energy access to site to preform required inspections as needed.

15. ENERGY RECOVERY VENTILATION

15.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. The customer must provide proof of energy recovery ventilation project cost, square footage of conditioned space of coverage, project completion date and an itemized inventory of equipment installed. This requirement is typically met by submitting copies of invoices.

3. Air Conditioning, Heating and Refrigeration Institute (AHRI) 1060 certified efficiency data must be attached to the incentive form.

4. All ratings must be done with an approved model rating tool by AHRI with a current version number listed on the AHRI site.

15.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. Installed equipment must be complete systems including any supplemental devices and shall be listed by Underwriters Laboratories or other nationally recognized testing laboratories in accordance with Underwriters Laboratories (UL) standards as appropriate.

2. Equipment efficiency ratings shall be obtained from an approved modeling tool by Air Conditioning, Heating and Refrigeration Institute (AHRI) rating procedure standard and have an active version number on the AHRI site.

3. To be eligible for an incentive, the energy recovery ventilation unit AHRI rating must be equal to or greater than 500 CFM with a rating equal to or greater than 65% total heating effectiveness per AHRI Standards.

4. All equipment installations must meet manufacturers' instructions and specifications and meet all state, county, and local codes.

5. All equipment shall be new and not refurbished, previously installed, or used.

6. The contractor will be encouraged to use mastic on all new connections.

15.3 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements as outlined in Section 3.1. If a customer-chosen contractor, the contractor must meet the contractor requirements as outlined in Section 3.2.

2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning Contractor in the jurisdiction having authority.

16. ADVANCED ROOFTOOP CONTROLLER

16.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. The customer must provide proof of project cost, project completion date and an itemized inventory of equipment installed. This requirement is typically met by submitting copies of invoices.

3. All ratings must be done with an approved model rating tool by AHRI if appropriate.

16.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. Installed equipment must be complete systems including any supplemental devices and shall be listed by Underwriters Laboratories or other nationally recognized testing laboratories in accordance with Underwriters Laboratories (UL) standards as appropriate.

16.3 CONTRACTOR REQUIREMENTS

1. Advanced Rooftop Controls (ARC) are retrofit kits that can help manage rooftop HVAC units more efficiently by adding variable frequency drives and controls to constant speed roof top unit supply fans must meet the contractor requirements as outlined in Section 3.1. If a customer-chosen contractor, the contractor must meet the contractor requirements as outlined in Section 3.2.

2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning Contractor in the jurisdiction having authority.

17. VFD ON COOLING TOWER FANS AND VFD ON HVAC PUMP MOTORS

17.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. The customer must provide proof of project cost, project completion date and an itemized inventory of equipment installed. This requirement is typically met by submitting copies of invoices.

3. All ratings must be done with an approved model rating tool by AHRI if appropriate.

17.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. Installed equipment must be complete systems including any supplemental devices and shall be listed by Underwriters Laboratories or other nationally recognized testing laboratories in accordance with Underwriters Laboratories (UL) standards as appropriate.

2. All equipment installations must meet manufacturers' instructions and specifications and meet all state, county, and local codes.

3. All equipment shall be new and not refurbished, previously installed, or used.

4. VFD on Redundant equipment is not eligible. Must be between 5 and 200 HP. Replace an existing VFD does not qualify.

5. Incentive cannot exceed 50% of the cost of the VFD installation.

17.3 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements as outlined in Section 3.1. If a customer-chosen contractor, the contractor must meet the contractor requirements as outlined in Section 3.2.

2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning Contractor in the jurisdiction having authority.

18. SMART THERMOSTAT

18.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. The customer must provide proof of project cost, project completion date and an itemized inventory of equipment installed. This requirement is typically met by submitting copies of invoices.

18.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. Installed equipment must be listed by Underwriters Laboratories or other nationally recognized testing laboratories in accordance with Underwriters Laboratories (UL) standards as appropriate.

2. All equipment installations must meet manufacturers' instructions and specifications and meet all state, county, and local codes.

3. Equipment shall be a WIFI connected Smart Thermostat

4. New Construction is excluded.

5. Thermostat shall have a program memory retention capability or battery backup (minimum two days) with a warning indicator for battery replacement and be connected to WIFI.

18.3 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements as outlined in Section 3.1. If a customer-chosen contractor, the contractor must meet the contractor requirements as outlined in Section 3.2.

2. If installed by qualified facility personal they must follow manufactures requirements for installation and startup.

3. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning Contractor in the jurisdiction having authority.

19. HVAC COIL CLEANING - PTHP/AC CLEANING

19.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. The customer must provide proof of cleaning project cost, project completion date and an itemized inventory of equipment cleaned including room number if applicable. This qualification is typically met by submitting copies of invoices.

3. Heating and cooling system must be all electric.

4. DEF must be informed of cleaning date to conduct random inspections during cleaning process or photos of equipment and cleaning as determined by DEF Management.

5. The HVAC equipment will only be eligible for one cleaning over its lifetime.

19.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. For PTAC/PTHP the cleaning process should start by removing the packaged HVAC units from the guest rooms.

2. The cleaning process should consist of removing the covers to gain access to the condenser and evaporator coils, blower fan(s) and other items in the air flow path. The entire unit is then cleaned.

3. Pre-and post-documentation form (provided by DEF) must be completed for each unit.

4. All equipment installations must meet manufacturers' instructions and specifications and meet all state, county, and local codes.

20. CHILLER/HVAC DX AIR CONDITIONER / HEAT PUMP TUNE-UP (Does not include PTAC/PTHP)

20.1 PARTICIPATION REQUIREMENTS

1. Customer must meet program eligibility requirements.

2. Customer must provide proof of project cost and project date. This is typically met by submitting copies of invoices.

20.2 MATERIAL AND INSTALLATION REQUIREMENTS

1. HVAC equipment must be all electric.

2. All equipment tune-up and repairs must meet manufacturer's instructions and inspections and meet all state, county, and local codes.

20.3 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements as outlined in Section 3.1. If a customer chosen contractor, the contractor must meet the contractor requirements as outlined in Section 3.2.

2. Contractor must be a licensed Mechanical Contractor, Class A, B, or C, in the jurisdiction having authority.

20.4 DOCUMENTATION REQUIREMENTS

1. Document equipment manufacturer, model, and serial numbers.

2. Pre-and post-documentation form (provided by DEF) must be completed for each unit.

21. LIGHTING FIXTURES AND CONTROLS

21.1 OCCUPANCY SENSORS, REFRIGERATED DISPLAY CASE LED LIGHTING 60" (5 FOOT), LED EXTERIOR WALL PACKS ONE 35 W LED WALL PACT, LED LINEAR FIXTURE REPLACEMENT 2 X 4 LED TROFFER, LED EXIT SIGN ONE 5 W SINGLE SIDED LED EXIT SIGN

21.2 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.

2. The customer must provide proof of project cost, project completion date and an itemized inventory of equipment installed. This requirement is typically met by submitting copies of invoices. Unless utilized in one of Duke Energy's delivery channels.

21.3 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. Installed equipment must be listed by Underwriters Laboratories or other nationally recognized testing laboratories in accordance with Underwriters Laboratories (UL) standards as appropriate.

2. All equipment installations must meet manufacturers' instructions and specifications and meet all state, county, and local codes.

3. If required by Minimum Codes, the equipment is not eligible for an incentive.

21.4 CONTRACTOR REQUIREMENTS

1. Must meet the contractor requirements as outlined in Section 3.1. If a customer-chosen contractor, the contractor must meet the contractor requirements as outlined in Section 3.2.

2. If installed by qualified facility personal they must follow manufactures requirements for installation and startup.

22. NEIGHBORHOOD Business ENERGY Saver Initiative (NBES -Pilot Offering as *a channel to customers*)

22.1 NBES INITIATIVE OVERVIEW

Duke Energy Florida, LLC's (DEF) Neighborhood Business Energy Saver (NBES) initiative is a custom energy conservation offering for non-residential metered low-income customers and will initially be piloted as a part of the Smart Saver Program. The NBES initiative is designed to assist businesses in selected neighborhoods where 50% of the households have incomes equal to or less than 200% of the poverty level as established by the U.S. Government. The NBES initiative allows DEF to individually reach a larger audience of income-eligible non-residential customers than through traditional government agency flow-through methods. DEF, through a third-party contractor, will directly install energy conservation measures (ECM), at a discounted cost identified through an energy assessment of the customer's facilities. Additionally, customers will receive a comprehensive package of energy education materials which will inform them on ways to better manage their facilities' energy usage.

The Neighborhood Business Energy Saver program seeks to achieve the following goals:

1. Complete a non-residential energy assessment to identify energy-efficiency opportunities within the customer's facilities.

2. Implement a comprehensive package of conservation measures to increase the business's energy efficiency.

3. Provide one-on-one customer education on energy-efficiency techniques and energy conservation measures.

4. Promote behavioral changes that will help the customers business control their energy usage.

22.2 ELIGIBILTY REQUIREMENTS

1. The facility must be a non-residential metered customer in DEF's service area.

2. The Business must be located in a selected DEF qualifying Census Block that meets the definition of an income-eligible neighborhood as stated above.

3. Multi-family dwellings that meet the above definition, which are located within the same city, but may not be within the same Census Block, may also be eligible to participate in the program if they meet guidelines as presented in the program participation standards.

4. All installations must be accessible for verification by a DEF representative.

22.3EQUIPMENT/MATERIALS AND INSTALLATION SPECIFICATIONS

All materials and installation specifications shall meet or exceed the following guidelines:

1. All equipment and the associated installations must meet manufacturers' instructions and specifications and DEF procedures. Any contractor who fails to meet these requirements may be terminated from participation in any or all DEF programs.

2. All work shall be performed to constitute a finished product.

3. Materials shall be free of defects and covered under warranty for at least one year.

4. Installation procedures must comply with all federal, state, and local codes.

22.4CONTRACTOR REQUIREMENTS

The contractor may work with subcontractors to install certain measures as mutually agreed upon with DEF. Contractors and subcontractors must have an active Florida General Contractor's license, meet all associated requirements of the Florida Department of Business and Professional Regulation and must comply with all local, state and federal rules and codes. The selected contractor(s) is/are responsible for all work performed and must meet and/or comply with the following requirements:

1. Contractors must have appropriate license(s) and comply with all appropriate federal, state, and local building and safety codes for all work performed.

2. DEF reserves the right to request background checks of contractors participating in the BNES program. The contractor shall be responsible for all associated costs.

3. The contractor is responsible for the associated work to be performed, the supervision of their employees and/or subcontractors and the use of contractor's own equipment (or rental equipment) to meet the work specifications.

4. All contractors must comply with DEF contractor procedures and manufacturers' specifications specific to the BNES initiative. Failure to do so may result in termination of participation in any or all DEF programs.

5. The contractor shall notify DEF of any incident occurring as a result of the BNES initiative or any follow-up procedure within one (1) working day of the incident.

6. The contractor must correct any deficiency found in the installation or product(s) associated with the BNES comprehensive package of electric conservation measures, when advised by a DEF representative, and notify the DEF representative of compliance within thirty (30) days.

7. Contractors shall indemnify and hold DEF harmless from any and all losses, liabilities, injuries, damages, claims, or costs, whatsoever caused, by items furnished or services rendered, as a result of the BNES program.

8. The contractor must notify their insurance companies to provide DEF with documentation, and maintain in force, the state required minimum insurance policies for license retention or the following minimum insurance policies, whichever is greater:

    - Workman's Compensation as required by law.
    - General Contractual and Automobile Bodily Injury Liability: $100,000 per person and $300,000 per occurrence
    - General and Automobile Property Damage Liability: $100,000 per occurrence
    - General and Vehicle Liability policies endorsed: $100,000 per occurrence to provide blanket Coverage
    - All sub-contract labor must comply with insurance requirements.

9. All participating duct sealing contractors must attend and successfully complete a DEF-approved duct repair course. At a minimum, the training will consist of:

    - Training session on building science
    - Duct test applications (classroom, field, and laboratory)

- Codes and standards as they relate to duct sealing.

10. Sub-contractors participating in the measures must follow DEF's Code of Ethics. DEF reserves the right to request background check results on all participating contractors and employees.

23 ELIGIBLE MEASURES

23.1 ENERGY-EFFICIENT Ceiling Mounted Occupancy Sensors

This measure will provide for the direct installation of energy-efficient ceiling mounted occupancy sensors.

23.2 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.0.

2. Only for applications not already required by the State Energy Code.

3. Plug load occupancy sensors do not qualify.

23.3 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. Must be Underwriters Laboratories (UL) approved sensors.

2. Manual override must offer the ability to turn lights off when space is occupied but must not offer the ability to turn lights on when space is unoccupied.

3. The occupancy sensors shall be installed in accordance with the manufacturers' recommendations and specifications.

4. Only passive and/or ultrasonic detectors are eligible.

5. Sensors must be hard-wired and control interior lighting fixtures.

23.4 CONTRACTOR REQUIREMENTS

1. Must meet the Contractor Requirements as outlined in Section 4.0.

24. EFFICIENT INDOOR AND EXTERIOR LIGHTING

24.1 PARTICIPATION REQUIREMENTS

1. Must meet the Eligibility Requirements as outlined in Section 2.0.

2. Eligible installations must use pre-approved lighting technology. Eligible lighting technologies include LED Exterior Wall Packs, 60" LED Refrigerator Display Case Strips, LED Linear 2 x 4 Troffer Replacement, and LED Single-Sided Exit Signs.

3. All lamps, ballasts, and fixtures must be Underwriters Laboratories (UL) listed.

4. Completed projects must meet all federal, state, and local codes and regulations and minimum Illuminating Engineering Society (IES) illumination standards.

24.2 CONTRACTOR REQUIREMENTS

1. Must meet the Contractor Requirements as outlined in Section 4.0.

25. CEILING INSULATION

25.1 PARTICIPATION REQUIREMENTS

1. Insulation recommendations must be the recommendation of the contractor. Eligible non-residential facilities must have whole-facility electric air conditioning and/or whole facility electric heating.

2. The weighted average R-value of the existing insulation over the total attic square footage (above conditioned space) must be R-12 or less. (Exception: May exclude conditioned area for a recent addition.)

3. Any facility with "Knob and Tube Wiring" that is energized is not eligible.

25.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. The insulation must be installed in accordance with the manufacturers' recommendations and specifications.

2. All installations must result in an insulation value equal to or greater than R-38.

3. Flat roofs must have enough space to allow a minimum of 3 inches of air space above the insulation after insulation has been installed to the recommended R-value.

4. The insulation must be installed in the unconditioned space as a direct application to the attic area over the conditioned space and have a minimum clearance around all recessed lighting and gas.

26. DUCT LEAKAGE REPAIR

26.1 PARTICIPATION REQUIREMENTS

Contractor will determine if the facility qualifies for an HVAC Duct Leakage Repair. Facilities must have a centrally ducted system to qualify for this measure. Contractor will perform a visual inspection of the duct work. If not currently insulated or sealed, the contractor will arrange for a qualified HVAC Technician to install this measure.

1. The non-residential customer's duct system must be in adequate condition to accommodate the duct leakage repair.

2. The duct must be accessible for repair.

3. Facilities must have centrally ducted electric cooling and electric heat.

4. Facilities must not contain any combustion appliances (including wood burning or gas fireplaces).

5. The Contractor will seal every joint and connection.

26.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All equipment installations must meet manufacturers' instructions and specifications.

2. For conventional duct repair only mastic and fiber cloth or mastic with embedded fiber (mixed) may be used to seal the duct system. Tape may be used to hold the duct in place while the mastic is drying. If tape is used, the mastic must cover the tape completely and extend a minimum of 2" past the width of the tape. Mastic must meet Underwriters Laboratories (UL) 181 specifications for the material to which the mastic

is being applied.

26.3 CONTRACTOR REQUIREMENTS

1. Contractor must meet specifications as outlined in section 4.0.

27. HVAC MEASURE

27.1 HVAC MAINTENANCE

During the assessment, the contractor will perform a visual assessment of the HVAC system and make a recommendation for a basic system check. Facility must be centrally electrically heated and/or cooled to qualify for this measure.

The following represents the minimum requirement that must be performed by an approved HVAC Technician:

System Controls and Operation:

- Check thermostatic operation.
- Cycle all controls.
- Inspect for dirt and loose connections; clean and tighten, as necessary.
- Visually check all connections for refrigerant leaks.
- Check refrigerant pressure and add as needed.
- Check and record supply and return temperature.

Evaporator:

- Inspect coil assembly and drip pan.
- Clean coil and pan and flush, as necessary.
- Check drain line and blow out if necessary.
- Apply algae treatment as required.

Blower and Blower Drive:

- Oil blower motor if applicable.
- Check motor bearings.
- Check belt condition and tension; replace if necessary.
- Check blower cleanliness; clean if necessary.

- Check and record amp draw.
- Check drive and pulley alignment.
- Check for vibrations.

Condenser:

- Lubricate condenser fan motor, if applicable.
- Check motor bearings.
- Check coil condition for dirt build-up and clean, as necessary.
- Clean condenser as needed.

Compressor:

- Check electrical wire connections; clean and tighten where possible.
- Check operation and condition.
- Check and record operating amperage.

Heating System:

- Check electric heat strips.

27.2 CONTRACTOR REQUIREMENTS

Contractor must meet specifications as outlined in the Contractors Requirements Section

28. ADDITIONAL CUSTOMER ENGAGEMENT OPPORTUNITIES AND CHANNELS

Duke may explore additional opportunities and/or channels such as midstream, upstream, marketplace and others as needed.

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

SMART $AVER CUSTOM INCENTIVE PROGRAM

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
SMART $AVER CUSTOM INCENTIVE PROGRAM

1. PROGRAM OVERVIEW

The objective of the Smart $aver Custom Incentive Program of Duke Energy Florida, LLC (DEF) is to encourage customers to make capital investments for the installation of high-efficiency technologies not covered by DEF's other DSM programs. Projects may include, but are not limited to, thermal energy storage projects, high-efficiency machinery, whole-building construction projects and other technologies specific to a particular industry or business process. Incentives will be determined on a project-specific basis.

2. ELIGIBILITY REQUIREMENTS

1. The participant must be located in the DEF service territory and be a non-residential, metered account.

2. Owners who do not occupy the facilities or renters of these types of facilities are eligible to participate in this program. If renters of a facility wish to participate in this program, they must submit written approval from the owner to do so.

3. Projects must pass the Participants cost effectiveness test and the RIM cost effectiveness test to qualify for incentives.

4. Projects must have a payback period of no less than two (2) years.

5. Projects must not include fuel switching.

6. A Smart $aver Custom Incentive Program Pre-Application Questionnaire or specific DEF Calculator evaluation, must be completed, and submitted for approval. DEF will evaluate the information provided to determine if the project may be eligible for incentives through this Program. Approval must be granted prior to completion of any project.

3. PARTICIPATION REQUIREMENTS

1. The customer will be required to submit an application to apply for projects that are determined to be eligible. The application will include additional project specific details including efficiency ratings of equipment, details of project costs, demand, and energy savings, as well as the savings load shape and measure life.

2. The application must be approved and signed by an authorized representative of DEF.

3. DEF will evaluate projects to determine cost effectiveness and appropriate incentive levels.

4. DEF will be allowed access to all measure installations for inspection purposes if requested.

4. EQUIPMENT AND INSTALLATION REQUIREMENTS

1. Completed projects must meet all federal, state, and local codes and regulations.

2. Projects may be inspected to verify the demand and energy savings.

3. All equipment for which an incentive is paid shall be new and not refurbished or previously installed or used. Incentives will not apply to equipment installed to provide back-up or redundancy.

4. All equipment installations shall meet manufacturers' instructions and specifications.

5. All projects must exceed local, state, and federal minimum efficiency standards.

6. Equipment must be all electric.

7. Other material and equipment specification requirements may be identified on an individual project basis.

8. The installed energy-efficiency equipment may require instrumentation, such as a DEF load profiler online or a chiller EMS to provide data on energy consumption to ensure the peak load shift has occurred.

5. INCENTIVES

1. Incentives are limited to fifty percent (50%) of the customer's actual total project cost for the energy efficiency measure(s).

2. The maximum incentive for a single project is $250,000.

3. Incentives may be paid in stages based on comparative performance metrics when there is uncertainty around the demand and energy reductions that will be achieved. Fifty percent (50%) of the approved incentive will be paid upon initial installation. The remaining incentive will be paid post-installation upon confirmation of the achieved impacts.

6. INCENTIVE PROCESSING

1. A Payment Request Form along with documentation of project costs and completion date must be submitted to DEF within ninety (90) days of completion of the project. This documentation must include an itemized inventory of the equipment installed along with equipment efficiency ratings from a nationally recognized certification program directory or a manufacturer's rating. For new construction projects, the supporting documentation must be received within ninety (90) days of the Certificate of Occupancy, permanent meter set or final payment authorization form.

2. DEF may inspect installations to verify operability of the technology and/or to obtain information needed to calculate the approved custom incentive amount.

3. Project-supporting documents will be reviewed to ensure program compliance.

4. Incentive payments will be based on the final, approved incentive amount for each project. Incentive amounts may be adjusted if the project cost or achieved impacts vary from the preliminary estimates.

5. Incentives will be paid after review and/or savings verification has occurred.

6. If the vendor is the payee, the vendor must issue credit in the amount of the Smart $aver Custom Incentive to the customer on the invoices provided with the payment request submission.

7. REPORTING REQUIREMENTS

The reporting requirements for this program will follow Rule 25-17.0021(5), Florida Administrative Code.

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

STANDBY GENERATION PROGRAM

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
STANDBY GENERATION PROGRAM

1. PROGRAM OVERVIEW

The Standby Generation program of Duke Energy Florida, LLC (DEF) is a load-control program designed to reduce DEF's demand based upon control of customer equipment. The program is voluntary and is available to business customers who have on-site generation capability and are willing to reduce their facility demand at the request of the company.

2. ELIGIBILITY REQUIREMENTS

1. Customer must be a non-residential customer taking service under a General Service rate schedule.

2. The program meter must be accessible by DEF for the purposes of reading, inspecting, and maintaining the standby-generation metering equipment.

3. PARTICIPATION REQUIREMENTS

1. Customer must have standby generation that will reduce utility system demand at the request of DEF.

2. Customer standby-generation capacity must be at least 50 KW and must be compliant with all state and federal emissions requirements.

3. Customer must be within the range of the Company’s switch communications capability.

4. EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. All installations must comply with all provisions of the National Electric Code (NEC) and any code or requirement of other authorities having jurisdiction.

2. Where necessary, the engineering for the metering and monitoring module installation will be done by a registered Florida engineer. The physical installation will be done by a licensed Florida electrical contractor selected by DEF. Appropriate permits will be secured for each installation by the contractor.

5. CONTRACTOR REQUIREMENTS

1. The contractor shall comply with all Load Management Standards as specified by the DEF Energy Management Department and stated in the most current copy of the Energy Management Operations Manual.

2. Contractors participating in the installation of metering and communications modules on the customer's equipment must meet the financial criteria set forth in the DEF Materials and Contracts Department policies and procedures.

3. The contractor must comply with all Federal, State, and local codes and regulations.

4. Contractors are responsible for the work to be performed, the use of the contractor's own equipment and the supervision of employees in order to meet the work specifications and the required completion date.

5. Contractor shall indemnify and hold DEF harmless against any and all injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.

6. Contractors will be insured as specified in the terms and conditions of their contract with DEF.

7. DEF reserves the right to request background checks of contractors working under this program.

6. INCENTIVES

Incentives will be provided in accordance with the provisions of the applicable Stand-by rate schedule.

7. REPORTING REQUIREMENTS

The reporting requirements for this program will follow Rule 25-17.0021(5), Florida Administrative Code.

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

INTERRUPTIBLE SERVICE PROGRAM

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
INTERRUPTIBLE SERVICE PROGRAM

1. PROGRAM OVERVIEW

The Interruptible Service program of Duke Energy Florida, LLC (DEF) is a direct load-control program that is used to reduce system demand during peak or emergency conditions through interruption of service to program participants. The program allows DEF to interrupt service to program participants per the provisions of the applicable Interruptible Service rate schedule.

2. ELIGIBILITY REQUIREMENTS

1. Customer must be eligible for service under an approved Interruptible Service Rate Schedule.

2. The facility must be in the DEF service territory and served by a metered, DEF account.

3. The customer must be a DEF non-residential customer.

3. PARTICIPATION REQUIREMENTS

1. Participant must sign an agreement with DEF as to the terms and conditions of this service.

2. Participant must allow DEF to install the required load control equipment.

3. Participant will be billed in accordance with the applicable Interruptible Service rate schedule.

4. INCENTIVES

Incentives will be provided in accordance with the terms of the applicable Interruptible Service Rate Schedule.

5. REPORTING REQUIREMENTS

The reporting requirements for this program are as specified in FPSC Rule 25-17.0021(5), Florida Administrative Code.

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

CURTAILABLE SERVICE PROGRAM

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
CURTAILABLE SERVICE PROGRAM

1. PROGRAM OVERVIEW

The Curtailable Service program of Duke Energy Florida, LLC (DEF) is an indirect load-control program that is used to reduce DEF's demand during peak or emergency conditions. This program is made available to non-residential customers through the Curtailable Service rate schedules. Customers who choose to participate in this program are required to curtail their load when requested by the utility per terms of the applicable rate schedule or to a level at or below the contractual agreed upon non-curtailable demand. The eligibility criteria, participation requirements, curtailment requirements and customer incentives, along with potential penalties for failure to curtail, are as specified in the terms of the applicable curtailable service rate schedule.

2. ELIGIBILITY REQUIREMENTS

1. Customer must be eligible for service under an approved Curtailable Service Rate Schedule.

2. The facility must be in the DEF service territory and served by a metered, DEF account through one point of delivery.

3. The customer must be a DEF non-residential customer.

3. PARTICIPATION REQUIREMENTS

1. Participants must sign an agreement with DEF as to the terms and conditions of this service.

2. Participants will be billed in accordance with the terms of the applicable Curtailable Service rate schedule.

3. Participants must remain on a curtailable service rate for the minimum term and provide notice to terminate their participation as specified in the applicable Curtailable Service rate schedule.

4. Participants are required to curtail their load during periods of requested curtailable per the terms of the applicable rate schedule or to a level at or below the contractual agreed upon non-curtailable load.

5. Participants who fail to comply with their curtailment responsibilities will be billed additional charges as specified in the applicable curtailable service rate schedule.

6. Participants are required to provide notice to transfer to a firm, rate schedule as specified in the applicable curtailable service rate schedule.

4. INCENTIVES

Incentives will be provided per the terms of the applicable Curtailable Service rate schedule.

5. REPORTING REQUIREMENTS

The reporting requirements for this program will follow Rule 25-17.0021(5), Florida Administrative Code.

III. TECHNOLOGY DEVELOPMENT

DUKE ENERGY FLORIDA, LLC

PROGRAM PARTICIPATION STANDARDS

TECHNOLOGY DEVELOPMENT PROGRAM

DUKE ENERGY FLORIDA, LLC
PROGRAM PARTICIPATION STANDARDS
TECHNOLOGY DEVELOPMENT PROGRAM

1. PROGRAM OVERVIEW

The purpose of the Technology Development Program of Duke Energy Florida, LLC (DEF) is to enable DEF to investigate technologies and pursue research, development and demonstration projects that may lead to the development of new cost-effective demand side management programs. The program is designed to allow DEF to investigate technologies and develop new programs from initial concept through submittal to the Florida Public Service Commission (FPSC) for consideration and approval. In general, each proposed technology development project will proceed according to the following schedule. Each milestone will represent a decision point to continue or discontinue the project based upon knowledge available at the time.

1. Project concept or idea development

2. Project research and design, including estimated costs and benefits.

3. Field demonstration program

4. Evaluation of field demonstration program, including cost-effectiveness

5. If accepted for continuation as a program, application to the FPSC for approval to implement the program.

Expenditures of up to $800,000 annually may be made and recovered through the energy conservation cost recovery clause for all energy efficiency and conservation projects that are proposed and investigated. All costs, including incentives and rebates that are offered, will be as part of the pre-approved project expenditures under this program. To ensure that all expenses are properly accounted for, a "job order" will be created for each project which will be the repository for all investigation expenses. A record of program expenses will be maintained in accordance with Rule 25-17.015, Florida Administrative Code.

2. ELIGIBILITY REQUIREMENTS

Customers eligible to participate in field demonstration projects will be determined during the project research and design phase. Eligibility will be dependent on the type of project being proposed and investigated. Field demonstrations will involve only a limited number of customers. Participants in field demonstration projects must allow DEF and its contractor's access to the facility for maintaining and monitoring the evaluation equipment. DEF will be solely responsible for determining the technologies to be evaluated under this program.

3. INCENTIVES

As part of this program, DEF may provide an incentive to participants in field demonstration projects for their willingness to work with DEF on the technology evaluation.

4. REPORTING REQUIREMENTS

If any single project's annual expenditures exceed $100,000, a status report will be filed as a component of the Energy Conservation Cost Recovery Projection and True-Up filings. If any project (or combination of projects) expenditures are projected to exceed the $800,000 annual limit, DEF will apply to the FPSC staff for approval to proceed with the particular project which would cause DEF to exceed the limit.