

State of Florida



# Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD  
TALLAHASSEE, FLORIDA 32399-0850

**-M-E-M-O-R-A-N-D-U-M-**

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**DATE:** February 20, 2025

**TO:** Office of Commission Clerk (Teitzman)

**FROM:** Division of Engineering (Thompson, Ellis, Ramos) *TB*  
Office of the General Counsel (Marquez, Imig) *ACH*

**RE:** Docket No. 20240169-EG – Petition for approval of proposed demand-side management plan and demand-side management program standards, by Duke Energy Florida, LLC.

**AGENDA:** 03/04/25 – Regular Agenda – Proposed Agency Action – Interested Persons May Participate

**COMMISSIONERS ASSIGNED:** All Commissioners

**PREHEARING OFFICER:** Clark

**CRITICAL DATES:** None

**SPECIAL INSTRUCTIONS:** Staff recommends the Commission simultaneously consider Docket Nos. 20240163-EG, 20240166-EG, 20240167-EG, 20240169-EG, and 20240170-EG.

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## Case Background

Sections 366.80 through 366.83, and 403.519, Florida Statutes (F.S.), known collectively as the Florida Energy Efficiency and Conservation Act (FEECA), require the Florida Public Service Commission (Commission) to adopt conservation goals to increase the efficiency of energy consumption. FEECA emphasizes reducing the growth rates of weather-sensitive peak demand, reducing and controlling the growth rates of electricity consumption, reducing the consumption of expensive resources such as petroleum fuels, and encouraging demand-side renewable energy resources. The Commission most recently established conservation goals for Duke Energy

Docket No. 20240169-EG

Date: February 20, 2025

Florida, LLC (DEF or Utility) by Order No. PSC-2024-0429-FOF-EG (2024 Goalsetting Order), issued September 20, 2024, in Docket No. 20240013-EG.<sup>1</sup> On December 19, 2024, DEF filed a petition requesting approval of its Demand-Side Management (DSM) Plan and the associated program participation standards.

The Commission has jurisdiction over this matter pursuant to Sections 366.80 through 366.83 and 403.519, F.S.

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<sup>1</sup> Order No. PSC-2024-0429-FOF-EG, issued September 20, 2024, in Docket No. 20240013-EG, *In re: Commission review of numeric conservation goals (Duke Energy Florida, LLC)*.

## Discussion of Issues

**Issue 1:** Should the Commission approve Duke Energy Florida, LLC's proposed DSM Plan and program standards?

**Recommendation:** Yes. DEF's DSM Plan is consistent with the proposed programs used to establish its DSM goals and is projected to meet the annual numeric conservation goals approved by the Commission in the 2024 Goalsetting Order. The programs included in DEF's proposed DSM Plan are also cost-effective based upon the Participants, Rate Impact Measure (RIM), and Total Resource Cost (TRC) tests. In addition, staff has reviewed DEF's program participation standards and they appear to be consistent with DEF's DSM Plan. Therefore, staff recommends that the Commission should allow DEF to file for cost recovery of the programs included in its proposed DSM Plan in the Energy Conservation Cost Recovery (ECCR) clause proceeding. However, DEF must demonstrate that the expenditures to implement its DSM programs are reasonable and prudent in order to recover those expenditures. (Thompson)

**Staff Analysis:** Section 366.82(7), F.S., requires that following the adoption of annual conservation goals, the Commission shall also require each utility subject to FEECA to develop a DSM plan to meet its conservation goals. Rule 25-17.0021(4), Florida Administrative Code (F.A.C.), requires each electric utility subject to FEECA to file its DSM plan, which consists of one or more DSM programs, and program participation standards for Commission approval.

The Commission considers the appropriateness of DSM programs by evaluating the following criteria, first outlined in Order No. 22176: (1) whether the program advances the policy objectives of FEECA and its implementing rules (such as reducing demand and energy usage); (2) whether the program is directly monitorable and yields measurable results; and (3) whether the program is cost-effective.<sup>2</sup> Pursuant to 366.82(7), F.S., the Commission may then elect to approve, modify, or deny the utility's DSM plan.

### DEF's Proposed DSM Plan

Staff reviewed DEF's proposed DSM Plan, including its demand and energy savings, cost-effectiveness, and rate impact. Overall, the programs within the proposed DSM Plan are consistent with the proposed DSM programs evaluated by the Commission in the 2024 Goalsetting proceeding. A complete list of the programs and a brief description of each can be found in Attachment A. Staff has also reviewed DEF's program participation standards, which can be found in Attachment B, and they appear to be consistent with DEF's DSM Plan.

DEF's proposed DSM Plan consists of a total of 14 programs, including six residential programs, six commercial/industrial programs, one research and development program, and one qualifying facilities program. DEF has proposed to continue 13 existing programs, seven with modifications, and add one new program. The program modifications consist of deleting measures that no longer meet efficiency standards or have not been successful in the market, and adding necessary measures. DEF's new program, the Multi-Family New Builder Construction

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<sup>2</sup> PSC Order No. 22176, issued November 14, 1989, in Docket No. 890737-PU, *In re: Implementation of Section 366.80-.85, F.S., Conservation Activities of Electric and Natural Gas Utilities*.

program, was included in the proposed programs used to develop DEF's DSM goals in its 2024 goalsetting proceeding. The Utility stated that this program was added to allow builders to bundle multi-family measures and provide them with an opportunity to participate in incentives.

As noted above, the programs included in DEF's DSM Plan are consistent with the proposed programs used to develop DEF's DSM goals in its 2024 goalsetting proceeding, with the exception of the Technology Development program, DEF's research and development program, and the Qualifying Facilities program. While these programs do not directly produce DSM goals savings, they have been included in DEF's prior DSM Plans, and they allow DEF to investigate technologies that may support the development of new demand response and energy efficiency programs, and meet the objectives of Florida Statutes and Commission Rules as it relates to the purchase of as-available energy and firm energy and capacity from qualifying facilities. As such, staff believes that the continued inclusion of these programs in DEF's DSM Plan is reasonable.

Regarding program participation rates, DEF's projected program participation rates for the programs included in its DSM Plan are consistent with the participation rates provided for the proposed programs used to develop its DSM goals; except for DEF's Neighborhood Energy Saver program, which reflects a participation increase consistent with the Utility's commitments in the 2024 Goalsetting Order. The projected program demand and energy savings meet the goals established by the Commission in the 2024 Goalsetting Order, and the programs included in DEF's DSM Plan are directly monitorable and measurable.

As required by Rule 25-17.008, F.A.C., DEF provided cost-effectiveness analyses for the programs included in its DSM Plan using the Participants, RIM, and TRC tests. All of DEF's DSM programs are cost-effective based on each of these tests. Additionally, the results of these cost-effectiveness analyses are consistent with the cost-effectiveness analyses results provided for the proposed programs used to develop DEF's DSM goals in its 2024 goalsetting proceeding. Therefore, staff recommends that DEF's DSM Plan and the associated program participation standards be approved.

DEF is responsible for monitoring actual participation rates and seeking Commission action, if necessary, to modify, add, or remove programs. If DEF is unable to meet the DSM goals established by the Commission, the Utility may be subject to appropriate action by the Commission, up to and including financial penalties. Table 1-1 shows an estimate of the annual ECCR expenditures and monthly rate impact on a typical residential customer for DEF's DSM Plan.

**Table 1-1  
 DEF's DSM Plan Annual ECCR Costs and Estimated Monthly Rate Impact**

Year	Annual ECCR Costs	Residential Customer
	(\$)	(\$/1,000 kWh/mo)
2025	143,010,107	3.93
2026	153,368,638	4.23
2027	161,545,460	4.46
2028	164,128,306	4.49
2029	143,474,848	3.90
2030	142,936,008	3.85
2031	143,212,984	3.81
2032	143,606,393	3.77
2033	144,021,687	3.74
2034	144,543,012	3.70
<b>Total</b>	1,483,847,442	-

Source: Document Nos. 10303-2024 and 00800-2025

**Conclusion**

DEF's DSM Plan is consistent with the proposed programs used to establish its DSM goals and is projected to meet the annual numeric conservation goals approved by the Commission in the 2024 Goalsetting Order. The programs included in DEF's proposed DSM Plan are also cost-effective based upon the Participants, RIM, and TRC tests. In addition, staff has reviewed DEF's program participation standards and they appear to be consistent with DEF's DSM Plan. Therefore, staff recommends that the Commission should allow DEF to file for cost recovery of the programs included in its proposed DSM Plan in the ECCR clause proceeding. However, DEF must demonstrate that the expenditures to implement its DSM programs are reasonable and prudent in order to recover those expenditures.

**Issue 2:** Should this docket be closed?

**Recommendation:** Yes. If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a consummating order. (Marquez, Imig)

**Staff Analysis:** If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a consummating order.

## **Duke Energy Florida Program Descriptions**

### **RESIDENTIAL PROGRAMS**

#### ***Home Energy Check***

This residential energy audit program provides customers with an analysis of their energy consumption as well as educational information on how to save money by reducing energy usage. The program offers a variety of options to customers for home energy audits including walk-through, phone assisted, and online audits. At the completion of the audit, DEF provides kits that contain energy saving measures that can be easily installed by the customer.

#### ***Residential Incentive Program***

This program will provide incentives on a variety of cost-effective measures designed to provide energy savings. This program will primarily be comprised of measures that target heating and cooling load such as high efficiency heat pumps, duct repair, insulation, energy efficient windows, and home energy management systems.

#### ***Multi-Family New Builder Construction Program***

This program is designed to provide incentives to builders and allow bundling of multi-family measures. This program builds on customer awareness through the Home Energy Check program, trade-ally support, and communication and marketing efforts designed to educate builders and landlords on cost-effective measures for multi-family homes.

#### ***Neighborhood Energy Saver Program***

This program is designed to provide energy saving education and assistance to low-income customers. DEF will utilize U.S. census block data to identify target neighborhoods with average incomes below 200% of the federal poverty guidelines. DEF plans to increase the number of targeted homes from 4,500 to 5,775 annually and increase its emphasis on installing smart thermostats for participants from 10% to 40%. In addition to direct installation of energy saving measures, a primary focus of this program will be to provide information and education about energy efficiency including information about savings that can be achieved through behavioral changes and low cost/no cost measures. DEF also plans to continue to provide high impact measures such as ceiling insulation and duct repair through this program.

#### ***Low Income Weatherization Assistance Program***

This program will provide information and education about energy efficiency, as well as funding for installation of weatherization measures and high efficiency appliances. DEF plans to continue to partner with local weatherization agencies and other types of organizations that provide assistance to low-income communities through this program.

#### ***Residential Load Management Program***

This program is a voluntary customer program that allows DEF to reduce demand and defer generation construction. Demand is reduced by controlling service to selected electrical equipment through various devices and communication options installed on the customers' premises.

## **COMMERCIAL/INDUSTRIAL PROGRAMS**

### ***Business Energy Check***

This program is available to all commercial customers and will provide education and information about energy savings opportunities specific to their business and operation. This program will also inform customers about rebates and incentives available through DEF's commercial energy efficiency and load management programs. DEF currently provides walk-through audits and phone assisted audits for commercial businesses through this program and is planning to add online audits in the future.

### ***Smart \$aver Program***

This program provides incentives to commercial customers on a variety of high efficiency cost-effective measures that provide energy savings beyond the requirements of codes and standards. The measures included in this program primarily target commercial cooling load through high efficiency chillers and direct expansion air conditioning systems.

### ***Smart \$aver Custom Incentive***

This program provides customized incentives for specific innovative projects that provide energy savings not otherwise addressed through DEF's other commercial programs. This program is intended to encourage commercial customers to make capital investments for the installation of energy efficiency measures that reduce energy and peak demand.

### ***Standby Generation Program***

This program is a load control program that provides demand savings through control of customers' back-up generators. The program is a voluntary program available to all commercial and industrial customers who have on-site generation capability and are willing to allow remote activation of their on-site generation during capacity emergencies. The customers receive monthly bill credits per the terms of the specific stand-by tariff under which they take service.

### ***Interruptible Service Program***

This program is available to non-residential customers who are willing to have their power interrupted at times of capacity shortage during peak or emergency conditions. This program provides peak demand savings through direct load control of the customer's electric service. Customers will be eligible for bill credits through this program based on the specific eligibility requirements and terms of the applicable interruptible tariff.

### ***Curtable Service Program***

This is a manual load control program available to commercial customers who agree to reduce demand at times of capacity shortage during emergency conditions. Program participants will receive monthly demand credits per the terms of the specific curtable tariff under which they take service.



## **OTHER PROGRAMS**

### ***Technology Development Program***

This program is used to fund the research and testing of new energy efficiency and demand response equipment and technologies. The results of these studies are used to inform and support the development of new energy efficiency and demand response programs.

### ***Qualifying Facilities Program***

This program is used to manage the purchase of as-available energy and firm energy and capacity from qualifying facilities pursuant to standard offer and negotiated contracts. Under this program, DEF develops standard offer contracts, negotiates, enters into, amends, and restructures firm energy and capacity contracts with qualifying cogeneration and small power production facilities, and administers all such contracts.

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**2025 – 2034**

**DUKE ENERGY FLORIDA, LLC**

**DEMAND SIDE MANAGEMENT**

**PROGRAM PARTICIPATION STANDARDS**

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**I. RESIDENTIAL CONSERVATION PROGRAMS**

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

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**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

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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, but will no longer be provided beginning in 2026.

**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.

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**DUKE ENERGY FLORIDA, LLC**  
**PROGRAM PARTICIPATION STANDARDS**  
**RESIDENTIAL INCENTIVE PROGRAM**



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**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.

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5. All installations must be accessible for verification by a DEF representative to ensure compliance with the RI 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

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

**4. INCENTIVES**

The incentive payment structure is as follows:

<b>Program Component</b>	<b>Dwelling Segment</b>	<b>Incentive</b>
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. <ul style="list-style-type: none"> <li>• Will pay \$0.25 per square foot up to \$600 to bring insulation from R-19 or less to a minimum of R-38</li> <li>• Will pay \$0.27 per square foot up to \$700 to bring insulation from R-12 or less to a minimum of R-38</li> <li>• Will pay \$0.31 per square foot and up to \$800 to bring insulation from R-2 or less to a minimum of R38.</li> </ul>

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Attic Insulation (Ceiling Insulation Upgrade)	Multi- Family Homes	DEF will pay for insulation upgrades for multi-family homes. <ul style="list-style-type: none"> <li>• Will pay \$0.27 per square foot up to \$300 to bring insulation from R-12 or less to a minimum of R-38</li> <li>• Will pay \$0.31 per square foot up to \$350 to bring insulation from R-2 or less to a minimum of R38.</li> </ul>
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.

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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.

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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).

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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

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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



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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.

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### **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.

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## **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

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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

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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.

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## **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

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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

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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).



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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

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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.

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

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**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 multi-family residential 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 multi-family 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 multi-family residential dwellings that are served on a residential retail schedule. Details of the program are available on the company website, [www.duke-energy.com](http://www.duke-energy.com). The multi-family unit must be new. Additions do not qualify for this multi-family 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.

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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.

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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.
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**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.

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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.

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



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

**1.0 PROGRAM OVERVIEW**

Duke Energy Florida, LLC's (DEF) Neighborhood Energy Saver (NES) 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 ELIGIBILITY 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

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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:

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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.

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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

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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.

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- 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

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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

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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:



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**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.

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### **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.

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### 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.

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**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.<sup>1</sup>

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<sup>1</sup> National Electrical Code, Article 394

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### 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.<sup>2</sup>
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).<sup>3</sup>

### 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.

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<sup>2</sup> Current Florida Building Code Section - Walls Considered Ceiling Area

<sup>3</sup> Current Florida Building Code Section - Ceilings With Blown-In Insulation

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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

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- 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

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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



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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.

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

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**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 (LIWAP) 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.

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### **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.

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- 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:

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<b>Weatherization Measure</b>	<b>Minimum Measure Requirement</b>	<b>Maximum Incentive Amount</b>	<b>Additional Requirements</b>
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.	\$ .50 per square foot up to a maximum of \$1000 per home	Must be a recommendation of a NEAT or DEF-approved audit, or Agency assessment protocol
	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 \$725 per home.	
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

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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.	\$4.00 per bulb	Maximum of 6 light bulbs per household
	Replace less efficient specialty chandelier bulbs with 5W LED's	\$2.00 per bulb	
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.

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**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).



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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

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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.

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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.

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**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.

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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.

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## **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.

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- 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.

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### **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.



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**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	<ul style="list-style-type: none"> <li>• Electric Water Heater</li> <li>• Current showerhead flow of 3.5 gallon per minute or greater</li> </ul>	<ul style="list-style-type: none"> <li>• Must meet manufacturer’s specifications</li> </ul>
Light Bulbs	<ul style="list-style-type: none"> <li>• Operation of less efficient bulbs a minimum of 3 hours per day.</li> </ul>	<ul style="list-style-type: none"> <li>• LED bulbs with similar lumen output installed in accordance with manufacturer’s specifications.</li> </ul>
Faucet aerators	<ul style="list-style-type: none"> <li>• No aerators currently installed</li> </ul>	<ul style="list-style-type: none"> <li>• Must meet manufacturer’s specifications.</li> <li>• Threads must be compatible with existing faucet threads</li> </ul>

**13.2 CONTRACTOR REQUIREMENTS**

Must meet the Contractor Requirements outlined in Section 2.1.

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**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

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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.

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

Attachment B

**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 connected/communicating customer-owned devices 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.

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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.

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## **II. NON-RESIDENTIAL CONSERVATION PROGRAMS**

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



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

**1. PROGRAM OVERVIEW**

The Business Energy Check (BEC) 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.

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**DUKE ENERGY FLORIDA, LLC**  
**PROGRAM PARTICIPATION STANDARDS**  
**SMART SAVER**

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

**1. PROGRAM OVERVIEW**

The Smart Saver 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 “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.

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**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

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- 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.

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The incentive payments for below qualifying measures are as follows:

Program Component	Incentive
<b>Building Envelope Improvements</b>	
Wall Insulation	\$0.20 per square foot to bring the level to $\geq R20$ . (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.
<b>HVAC Equipment Replacement</b>	
Air-Cooled and Water-Cooled Electric Chillers	\$25 per ton for qualifying equipment as referenced in Chiller section and meeting efficiency requirements
Heat Pumps $\leq 65,000$ 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

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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
<b>HVAC System Related Improvements</b>	
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

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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
<b>Lighting and Controls</b>	
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



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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

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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.

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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*).

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## **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.

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**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.

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## **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 ( $\leq 65,000$ 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.

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## **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.

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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 by 6-10% 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.



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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.

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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<sub>2</sub> 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.

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### 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.

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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.

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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

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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.

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**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.

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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.



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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**

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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**

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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.

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#### **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 – A 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

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energy usage.

## **22.2 ELIGIBILITY 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.

## **22.3 EQUIPMENT/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.

## **22.4 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

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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 NBES 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

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- 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.

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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.



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## **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.

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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:**

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- 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.

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**DUKE ENERGY FLORIDA, LLC**  
**PROGRAM PARTICIPATION STANDARDS**  
**SMART SAVER CUSTOM INCENTIVE PROGRAM**

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**DUKE ENERGY FLORIDA, LLC  
PROGRAM PARTICIPATION STANDARDS  
SMART SAVER CUSTOM INCENTIVE PROGRAM**

**1. PROGRAM OVERVIEW**

The objective of the Smart Saver 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 Saver 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.

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**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.

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**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 Saver Custom Incentive to the customer on the invoices provided with the payment request submission.

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**7. REPORTING REQUIREMENTS**

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



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**DUKE ENERGY FLORIDA, LLC**  
**PROGRAM PARTICIPATION STANDARDS**  
**STANDBY GENERATION PROGRAM**

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**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

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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.

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**DUKE ENERGY FLORIDA, LLC**  
**PROGRAM PARTICIPATION STANDARDS**  
**INTERRUPTIBLE SERVICE PROGRAM**

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**DUKE ENERGY FLORIDA, LLC  
PROGRAM PARTICIPATION STANDARDS  
INTERRUPTIBLE SERVICE PROGRAM**

**1. PROGRAM OVERVIEW**

The Interruptible Service (IS) 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.

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**5. REPORTING REQUIREMENTS**

The reporting requirements for this program are as specified in FPSC Rule 25-17.0021(5), Florida Administrative Code.

Attachment B

**DUKE ENERGY FLORIDA, LLC**  
**PROGRAM PARTICIPATION STANDARDS**  
**CURTAILABLE SERVICE PROGRAM**

Attachment B

**DUKE ENERGY FLORIDA, LLC  
PROGRAM PARTICIPATION STANDARDS  
CURTAILABLE SERVICE PROGRAM**

**1. PROGRAM OVERVIEW**

The Curtailable Service (CS) 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.



Attachment B

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.

Attachment B

### **III. TECHNOLOGY DEVELOPMENT**

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**DUKE ENERGY FLORIDA, LLC**  
**PROGRAM PARTICIPATION STANDARDS**  
**TECHNOLOGY DEVELOPMENT PROGRAM**

Attachment B

**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.

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**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.