

Re: Docket No. 991789-EG

Dear Ms. Bayó:

In accordance with Order No. PSC-00-0750-PAA-EG in the subject docket, enclosed for filing are an original and fifteen copies of Florida Power Corporation's Program Participation Standards. These Standards are submitted for review and administrative approval by Staff, as authorized in the above referenced order.

Please acknowledge your receipt of the above filing on the enclosed copy of this letter and return to the undersigned. Thank you for your assistance in this matter.

Verv truly yours

James A. McGee

APP JAM/kbd CAF Enclosure CMU CTB cc: Parties of record AG LEG Mr. Michael Haff MAS RECEIVED & FILED OPC RR SEC FPSC \NAW RECORDS OTH Co

One Progress Plaza, Suite 1500 • Post Office Box 14042 • St. Petersburg, Florida 33733-4042 Phone: (727) 820-5184 • Fax: (727) 820-5519 • Email: james.a.mcgee@fpc.com

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JAMES A. MCGEE SENIOR COUNSEL

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FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS HOME ENERGY CHECK PROGRAM

1. **PROGRAM OVERVIEW**

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The Home Energy Check is FPC's residential energy audit program. It provides customers with an analysis of their current energy use and recommendations on how they can save on their energy bills through low-cost or no-cost energy efficiency practices, products and measures.

The Home Energy Check serves as the foundation of the Home Energy Improvement program in that the audit is a prerequisite for participation in most of the energy saving measures offered in the Home Energy Improvement program. This requirement exists to allow FPC representatives to: 1) provide FPC customers with an overview of typical energy usage, 2) verify that the energy saving measure is necessary and addresses the customer's problem and 3) help minimize free rider-ship in the Home Energy Improvement program.

The Home Energy Check program offers FPC customers the following types of audits:

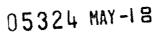
- Level 1: Customer-completed Mail In Audit (Do It Yourself Home Energy Check)
- Level 2: Free Walk-Through Audit (Home Energy Check)
- Level 3: Computer Assisted Audit
- Level 4: Home Energy Rating (or BERS/Energy Gauge) Audit (Class I, II, III)

All residential customers are eligible to receive any of the above energy audits. A FPC auditor will usually conduct the audit, although FPC may also work with other agencies and/or utilities as an extension of FPC's services, in which case an approved auditor from another organization may conduct the audit.

2. ELIGIBILITY REQUIREMENTS

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

Florida Power Corporation Program Participation Standards Home Energy Check Program



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3. PARTICIPATION REQUIREMENTS

- 1. No more than one audit may be conducted for the same customer at the same premise within a two-year period. FPC reserves the right to update audits and schedule field visits on a per need basis.
- 2. There is a cost of \$15 associated with participants in Level 3 (Computer Assisted Audits) and the cost for Level 4 (Home Energy Rating) is outlined in FPC's "Florida Energy Gauge Ratings" (FEGR) rate tariff (Section II, Sheet number 2.6.)
- 3. A Mail-In Audit requires an eligible customer to have a 12-month billing history at the current premise, however, FPC reserves the right to make special exemptions to this requirement.

4. INCENTIVES

FPC may decide to offer a small incentive to increase participation in the Level 1 Customer Completed Mail-In Audit program.

5. **REPORTING REQUIREMENTS**

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

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS HOME ENERGY IMPROVEMENT PROGRAM

1. **PROGRAM OVERVIEW**

The Home Energy Improvement (HEI) Program is an "umbrella" program designed to improve the energy efficiency of existing residential homes. The program seeks to meet the following overall goals:

- 1. Improve customer comfort levels through energy efficient equipment and home thermal integrity.
- 2. Obtain energy and demand reductions that are significant, permanent and measurable.
- 3. Enhance contractor awareness of the capabilities of energy efficient technologies.
- 4. Educate customers about additional opportunities to upgrade home energy efficiency.
- 5. Obtain cost-effective resources from the marketplace.
- 6. Minimize "lost opportunities" in the existing home market.

2. ELIGIBILITY REQUIREMENTS

- 1. All measures must have been recommended during a FPC energy audit. (Exception: In emergency cases the customer may have a heat pump and/or alternate water heating installed prior to an audit being conducted.)
- 2. The residence must be in FPC's service area and be a residential metered customer of FPC.
- 3. Do-it-yourself installations are not eligible for program participation. FPC participating contractors will be utilized to implement the incentive-based components of the HEI program. A participating licensed contractor who is on FPC's participating contractor list for the specific measure must do all work. (*Exception: The Heating, Ventilation and Air Conditioning (HVAC) portion of this program will not have a participating contractor list.*)
- 4. All installations must be accessible for verification of HEI program standards by a FPC representative.
- 5. New construction homes do not qualify under the HEI program.

2.1 CONTRACTOR REQUIREMENTS

- 1. All contractors must comply with FPC contractor procedures and manufacturers' specifications specific to the portion of the HEI Program for which they are participating. Failure to do so may result in termination of participation in any or all FPC 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 FPC representative, and notify the FPC representative of compliance within 30 days.
- 4. The contractor shall notify FPC of any incident occurring during installation of a conservation measure or any follow-up procedure within 5 (five) working days of incident.
- 5. The contractor shall indemnify and hold FPC harmless against any and all injuries or damages, claims or costs, whatsoever caused by items furnished or services rendered.
- 6. The contractor must comply with all Federal, State, and local codes and regulations and have the appropriate license(s) for the work to be performed.
- 7. The contractor must notify their insurance companies to provide FPC with documentation and maintain in force the following insurance policies: (Exception: Section 8 and Section 9 dealing with HVAC contractors is exempt from this provision.)
 - 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.

3. **INCENTIVES**

The incentive payment structure is as follows:

Program Component	Incentive				
Duct Test	50% of test cost up to \$30 for the first unit tested				
Duct Test	50% of test cost up to \$20 for each additional unit at same address				
Duct Leakage —	25% of the repair cost up to a maximum of \$50 per unit for homes with non-ducted electric heat (ceiling, baseboard, etc)				
Repair	50% of the repair cost up to a maximum of \$100 per unit for homes with ducted electric heat For Multi-Family \$100 per unit no test required				
Attic Insulation	\$75 to bring insulation level up to a minimum of R-19 -				
Atuc Insulation	\$100 to bring insulation level up to a minimum of R-30				
High Efficiency Heat Pump	\$250 for minimum cooling efficiency of 10.2 EER/12.0 SEER and minimum heating efficiency of 2.9 COP/ 7.0 HSPF				
Replacing Resistance Heat	\$350 for minimum cooling efficiency of 11.0 EER/ 13.0 SEER and minimum heating efficiency of 3.0 COP/ 7.5 HSPF				
High Efficiency Heat Pump	\$100 for minimum cooling efficiency of 10.2 EER./ 12.0 SEER and minimum heating efficiency of 2.9 COP/ 7.0 HSPF				
Replacing Heat Pump	\$150 for minimum cooling efficiency of 11.0 EER/ 13.0 SEER and minimum heating efficiency of 3.0 COP/7.5 HSPF				
Heat Recovery Unit	\$100				
Dedicated Heat Pump Water Heater	··· \$200				
Supplemental Incentive Bonus	\$25 for high efficiency electric heat pump and either ceiling insulation or duct leakage repair				
Supplemental Incentive Bonus	\$50 for high efficiency electric heat pump ceiling insulation and duct leakage repair				
Notes:	ceiling insulation and duct leakage repair <i>Sciency level</i> <i>hin go days fre</i> <i>cers to hole</i>				

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Notes:

1. A home is eligible to receive an incentive for each heat pumr

- 2. To qualify for the supplemental bonus, additional measured eus nergy Improvement Prr the installation of the heat pump.
- 3. In multi-family structures, FPC reserves the riv costs to a minimum.

4. Incentive Processing

- 1. The FPC representative will complete an HEI Program form which will record as a minimum the following information: customer's name, address, account number, measure installed, equipment information (manufacturer, model numbers, EER or SEER, HSPF or COP).
- 2. The customer will sign and date the FPC form that relates to each applicable measure installed, and retain a copy.
- 3. If the home is assigned for inspection, an inspection form will be given to the inspector. After the inspection has been successfully completed, the inspector returns the inspection form to FPC for payment processing.
- 4. A copy of the customer invoice must accompany the incentive application for the insulation upgrade and the duct repair portion of this program.
- 5. If the home is not assigned for inspection, or after it has passed inspection, contractors' invoices will be processed for payment.
- 6. FPC will then input "work completed" and "amount paid" to the computer system and file a copy of the HEI Program form by customer name.
- 7. All incentive payments are paid to the contractor with the exception of the supplemental bonus, which is to be posted on the customer's electric bill. (Exception: The HVAC incentives (high efficiency heat pump, heat recovery, and heat pump water heater) will be paid as a credit on the customer's bill or a check to the customer.)
- 8. If there is no out of pocket cost incurred by the owner, the incentive will go to the state provider/agency that arranged the installation of the measure.

5. **REPORTING REQUIREMENTS**

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

6. CEILING INSULATION UPGRADE

6.1 **PARTICIPATION REQUIREMENTS**

- 1. Must meet the Eligibility Requirements outlined in Section 2.
- 2. The home must be at least two years old.
- 3. Eligible residences must have whole house electric air conditioning and/or whole house electric heating.
- 4. The weighted average R-value of the existing insulation over the total attic square footage (above conditioned space) must be less than R-12.
- 5. Any structure that has utilized any of FPC's ceiling insulation programs 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 FPC with a letter from his/her insurance company stating that the insulation was not covered.
- 6. The total ceiling area to be insulated must be greater than 500 square feet.
- 7. Mobile homes built after January 1, 1977 will be assumed to have an insulation value in excess of R-11 and will not be eligible to participate in this part of the HEI Program unless documentation is provided to FPC stating that the actual existing insulation value is less than R-12.
- 8. Any home with "Knob and Tube Wiring" that is energized is not eligible.¹

6.2 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 R-19 or R-30. Insulation shall be added in increments of R-11, R-19, R-22, or R-30.
- 3. Flat roofs must have sufficient 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.

¹ National Electrical Code 1990, Article 324, Section 324-4

- 5. The insulation must have a minimum clearance around all recessed lighting and gasfired appliances as required by State, County and local codes.
- 6. The insulation must be installed uniformly, resulting in a minimum R-19 value throughout the entire area including knee walls.²
- 7. All attic access panels that are located in conditioned space must be insulated with a minimum R-19 batt permanently attached.
- 8. Radiant barriers will not be allowed as a substitute in the HEI Program.
- 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).³

6.3 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

² Florida "1993 Energy Efficiency Code for Building Construction" Section 604.1.A.1 Walls Considered Ceiling Area

³ Florida "1993 Energy Efficiency Code for Building Construction" Section 604.1ABC.1.1 Ceilings With Blown-In Insulation

7. DUCT TEST AND LEAKAGE REPAIR

7.1 **PARTICIPATION REQUIREMENTS**

- 1. Must meet the Eligibility Requirements outlined in Section 2.
- 2. Repair recommendations must have been the result of a FPC-approved duct test.
- 3. The customer's duct system 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.
- 6. Duct and HVAC systems must be in adequate condition to accommodate duct leakage repair.

7.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. All equipment installations must meet manufacturers' instructions and specifications.
- 2. Only mastic and fiber cloth or mastic with embedded 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 FPC when performing the duct test.

7.3 CONTRACTOR REQUIREMENTS

- 1. Must meet the Contractor Requirements outlined in Section 2.1.
- 2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning contractor.

- 3. All participating contractors must have attended and successfully completed a FPC-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, FPC has adopted the National Fuel Gas Code's "Appendix H: Recommended Procedure for Safety Inspection of an Existing Appliance Installation."
- 5. In multi-family rental units the contractor shall seal all joints and connections. No duct test is required for multi-family. No combustion appliances (fireplaces, water heating, etc.) are allowed for multi-family due to safety concerns.

7.4 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.

8. HIGH EFFICIENCY ELECTRIC HEAT PUMPS

8.1 **PARTICIPATION REQUIREMENTS**

- 1. Must meet the Eligibility Requirements outlined in Section 2.
- 2. The customer must have had an audit within the past two years, or schedule an audit within 30 days of installation of the heat pump.
- 3. Customer must have electric strip heat or less efficient heat pump.

8.2 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.⁴
- 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.

⁴ 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, which will use the COP value listed.

- 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 a hard start kit was installed either by the contractor or at the factory for equipment installations with a scroll compressor larger than 36,000 Btu.
- 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.

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17. The contractor will be paid \$25 for completing the paperwork on each customer's purchase. This incentive is not to exceed the \$25 per account regardless of the number of units installed. If the alternate water-heating unit was installed along with a heat pump, the contractor incentive will not be paid on the water-heating portion of the installation.

8.3 CONTRACTOR REQUIREMENTS

- 1. Must meet the Contractor Requirements outlined in Section 2.1.
- 2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning contractor.
- 3. 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 FPC within 30 days if there was an emergency replacement due to equipment failure.
- 5. The contractor shall have 6 months from date if installation to submit all "High Efficiency Equipment Forms" after which they will become ineligible for incentive.

9. HIGH EFFICIENCY ALTERNATE ELECTRIC WATER HEATING

9.1 **PARTICIPATION REQUIREMENTS**

- 1. Must meet the Eligibility Requirements outlined in Section 2.
- 2. The customer must have had an audit within the past two years.

9.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. All heat recovery units must be installed in accordance with manufacturer's 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. Heat recovery water heaters must be equipped with a circulating pump and must be Association of Refrigerant Desuperheater Manufacturers (ARDM) certified.
- 4. Heat recovery unit must be installed on an electric water heater.
- 5. All equipment shall be new and not refurbished, previously installed, or used.
- 6. The contractor will be paid \$25 for completing the paperwork on each customer's purchase. This incentive is not to exceed the \$25 per account regardless of the number of units installed. If the alternate water-heating unit was installed along with a heat pump, the contractor incentive will not be paid on the water-heating portion of the installation.

9.3 CONTRACTOR REQUIREMENTS

- 1. Must meet the Contractor Requirements outlined in Section 2.1.
- 2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning contractor.
- 3. The contractor must notify FPC within 30 days if there was an emergency replacement due to equipment failure.

10. HIGH EFFICIENCY ELECTRIC CENTRAL AIR CONDITIONERS

10.1 PARTICIPATION REQUIREMENTS

- 1. Must meet the Eligibility Requirements outlined in Section 2.
- 2. Must meet the Participation Requirements outlined in Section 8.1.

10.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

1. Must meet the Equipment and Installation Specifications outlined in Section 8.2.

10.3 CONTRACTOR QUALIFICATION REQUIREMENTS

- 1. Must meet the Contractor Requirements outlined in Section 2.1.
- 2. Must meet the Contractor Requirements outlined in Section 8.3.

11. INSTALLMENT BILLING

- 1. As an alternative to receiving an incentive payment, customers may opt to finance up to a maximum of \$500 through installment billing. For each measure, a customer can use installment billing to finance up to 90% of the total installed cost or repair cost.
- 2. Installment billing allows the customer to spread the cost over 12 months interest free. The installment billing payments will appear as a separate line item on the customer's monthly electric bill from FPC.
- 3. Installment billing can be used for any combination of the following qualified measures: ceiling insulation upgrade, duct leakage repair, high efficiency electric heat pump, heat recovery unit, and dedicated heat pump water heater.
- 4. If the customer installs additional qualified measures, a new installment billing arrangement can be set up only after the initial or current "loan" is paid off.
- 5. The customer must own the home in which the improvements are being made. The customer shall not have been cut for non-payment, received a credit extension or have any returned checks within the past two years.

12. FINANCING ASSISTANCE

- 1. Financing Assistance is another alternative to the direct incentive payment. FPC will work with finance companies and attempt to offer eligible program participants a financing option at below market rates. Eligible customers may apply appropriate program incentives to reduce the principle amount or to lower interest rates on installment loans.
- 2. The finance company will qualify the borrower and arrange for the loan using their normal procedures.
- 3. FPC will coordinate with HVAC contractors and various finance companies to offer reduced interest loans on mechanical installations.
- 4. HVAC contractors will be responsible for presenting incentive options to the customer and arranging financing with participating finance companies, as needed.
- 5. Contractors are required to submit to FPC an invoice for the incentive amount and a copy of the customer invoice itemizing all costs.
- 6. The finance company will pay the contractor the total amount to be financed minus the incentive amount.

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS NEW CONSTRUCTION PROGRAM

1. **PROGRAM OVERVIEW**

The New Construction Program is an "umbrella" program designed to improve the energy efficiency in the following three new construction segments:

- A. Residential Site Built
- B. Manufactured Homes
- C. Multi-Family

This program is designed to target major construction markets, so as to minimize lost opportunities. It is the objective of this program to work closely with these different trade allies to build energy efficient housing for Florida's future.

The program seeks to meet the following overall goals:

- 1. Educate builders about energy efficient new construction building design to create a supply of energy efficient homes.
- 2. Educate perspective buyers and real estate agents about the benefits of energy efficient home design to increase the demand for energy efficient homes.
- 3. Obtain energy and demand impacts that are significant, accurate, sustainable and measurable.
- 4. Evaluate cost-effective measures for the marketplace.
- 5. Minimize "lost opportunities" in the new construction market.

The program will provide education and information to the design community and the real estate market on energy efficient building design and construction. This program will pay for the cost of duct testing to educate builders, provide financial incentives for energy efficient equipment, issue a certificate which identifies the home as energy efficient, and offer cooperative advertising to Energy Star developers and builders to promote the New Construction Program.

New Construction Program

A. **RESIDENTIAL NEW CONSTRUCTION**

A.1. OVERVIEW

The Residential New Construction (RNC) component of the program promotes energy efficient site built new home construction in order to provide residential customers with higher efficient cooling and heating consumption combined with improved environmental comfort. This program combines the most efficient measures, in equipment and envelope, to produce the most cost-effective energy efficient home.

The Residential New Construction program defines three levels of eligibility and various options within each level with which a homebuilder may comply in order to receive home certification.

A.2. ELIGIBILITY REQUIREMENTS

- 1. The home must be either single family detached or single family attached (e.g. townhouses, condos, etc.).
- 2. The home must be new -- additions do not qualify for this RNC program.
- 3. A RNC builder or builder/owner meeting FPC standards must build the home. The builder must comply with all Federal, State, and local codes.
- 4. The home must be accessible for verification of RNC Program standards by a FPC employee or representative.
- 5. The home must be located in FPC's service area and must be metered by FPC.
- 6. The heating source must be an all electric heat pump(s). No resistance heat is allowed except as back-up supplemental heat.

A.2.1 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. All equipment installations must meet manufacturer's instructions and specifications. Any contractor failing to meet manufacturer's specifications and FPC procedures may result in termination of participation in any or all FPC programs.
- 2. Cooling unit sizing may not exceed the calculated whole house load by 15% or 6,000 Btuh, whichever is larger.
- 3. Equipment specification shall be according to Air Conditioning and Refrigeration Institute and Department of Energy test standards 210/240/94 or by a FPC-recognized engineering standard using sound engineering estimates.

- 4. Minimum wall insulation is R-4 for masonry and R-11 for frame.
- 5. Equipment information such as model numbers, manufacturers, and Btuh capacity shall be made accessible to the FPC employee or representative.
- 6. Heat recovery water heaters must be equipped with a circulating pump and must be Association of Refrigerant Desuperheater Manufacturers (ARDM) certified.
- 7. Only mastic and fiber cloth or mastic with embedded 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.
- 8. If the installed equipment uses a scroll compressor larger than 36,000 Btuh, the air conditioning contractor or builder shall certify that a hard start kit was installed by the air conditioning contractor or the factory.

A.2.2 CONTRACTOR¹ REQUIREMENTS

- 1. Contractors shall certify that the airflow meets manufacturer's specifications and recommendations for the system installed.
- 2. Refrigerant charge and type shall follow manufacturer's recommendations for the unit installed. The contractor will certify that the unit has been tested and is leak free.
- 3. All participating contractors must comply with FPC contractor procedures specific to the level for which they are participating.
- 4. It is the responsibility of the FPC employee or representative to encourage each builder to move up to either Level Two or Level Three.
- 5. The contractor must correct any deficiency found in the installation or product when advised by a FPC employee or representative, and notify the FPC employee or representative of compliance within 30 days.
- 6. The contractor shall indemnify and hold FPC harmless against any and all injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.
- 7. Must meet the RNC technical specifications of either Level One, Level Two, or Level Three.

¹ Contractor and manufacturer are synonymous.

- 8. If the builder has a model center, FPC will pay to test the duct system for one home per model center to educate the builder as to why duct leakage is undesirable. If the builder does not have a model center, the builder's residence or the home the builder is currently constructing may be used for demonstration purposes.
- 9. The builder or his representative and the builder's air conditioning contractor must be present at the time the educational duct test is conducted. If the builder agrees to participate in Level One prior to the educational test and the air conditioning contractor is already participating in the RNC Program, then no educational test is required. If an educational duct test is required, a FPC employee or representative must be present.
- 10. The builder must correct any problems discovered during the duct test before that builder may become certified in the RNC Program.
- 11. An incentive of \$15 will be paid to the builder or HVAC contractor completing the paperwork required by this program. This incentive is not to exceed \$15 regardless of the number of heat pump systems installed at any one FPC account (address). If alternate water heating is installed along with a heat pump, the incentive will not be paid on the water heating portion of the installation.

A.3. TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY

The RNC Program defines three levels of eligibility and various options within each level which a homebuilder must comply in order to receive home certification.

A.3.1 LEVEL ONE

Must incorporate any changes to the duct system that are indicated by the educational duct test, and construct duct systems that meet FPC standards specifications (see Section A.2.1, item 7).

A.3.2 LEVEL TWO

Meet Level One requirements, and install a high efficient electric heat pump with a minimum cooling efficiency of 10.2 EER² (Energy Efficiency Rating), or 11.5 SEER (Seasonal Energy Efficiency Rating), with a minimum heating efficiency of 7.0 HSPF (Heating Season Performance Factor). Ground source heat pumps must achieve a 2.9 COP (Coefficient of Performance) or higher. *Plus one of the following:*

- 1. Construct duct system in accordance with Manual D
- 2. Install a minimum of R-30 attic insulation to the top floor units.
- 3. Install a heat recovery unit.
- 4. Install a dedicated heat pump water heater.

A.3.3 LEVEL THREE

Homes built under this level shall be at least 30 percent more efficient than the Council of American Building Officials (CABO) 1993 Model Energy Code (MEC) as defined by the US Environmental Protection Agency's (EPA) Energy Star Program.

A.3.4 COOPERATIVE ADVERTISING

The following specifications must be met to be eligible for cooperative advertising:

- 1. Homes must be built to Level Three specifications.
- 2. Advertising may be applied to billboards, Parade of Homes, Realtor magazines, or other long-life publications approved by FPC.
- 3. FPC must approve the advertising prior to placing the ad.
- 4. FPC reserves the right to withhold payment for advertising which is untruthful or offensive; FPC shall be the final judge.

² If the EER value for the unit is available from the manufacturer, then the unit must satisfy the minimum EER criteria. Only if the cooling EER value is not available from the manufacturer may the unit comply with minimum cooling efficiency requirements using the SEER value.

A.4. INCENTIVES

The incentive payment structure builds on thermal and mechanical efficiencies as follows:

Level	Incentive		Requirements	Minimum Cooling Efficiency		Minimum Heating Efficiency	
				EER	SEER	HSPF	COP
Level One	One Free Educational Duct Test		Home must have a centrally ducted heat pump system and meet FPC duct sealing specifications				
Level Two	Incentive from Level One Plus	\$100	Level One and a high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation	10.2	11.5	7.0	2.9
		\$300	Level One and a high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation	11.0	12.5	7.5	3.0
		\$100	Level One and high efficiency electric heat pump, and a Heat Recovery Unit				
		\$200	Level One and high efficiency electric heat pump, and a Heat Pump Water Heater				
Level Three	Incentive from Levels One & Two, Plus up to \$50 per home		Home must meet all Level One & Two requirements, Plus home must qualify for EPA's Energy Star Program				

A.5. INCENTIVE PROCESSING

- 1. The FPC employee or representative or HVAC contractor will complete an RNC Program form which will record as a minimum the following information: builder's name, subdivision, address or lot and block of certified home, Level number, equipment information (manufacturer, model numbers, EER or SEER, HSPF or COP).
- 2. The builder or HVAC contractor will sign and date the form, and retain a copy.
- 3. If the home is assigned for inspection, the original RNC Program form is given to the inspector. After the inspection has been successfully completed, the inspector returns the original form to FPC for payment processing.
- 4. If the home is not assigned for inspection, or after it has passed inspection, builder's invoices will be processed for payment.
- 5. FPC will then input "work completed" and "amount paid" to the customer database and file a copy of the program forms by builder.

A.6. REPORTING REQUIREMENTS

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

B. RESIDENTIAL MANUFACTURED NEW HOME

B.1. OVERVIEW

The Residential Manufactured New Home (RMNH) component promotes energy efficient manufactured home construction. This will provide customers with more efficient mechanical systems to lower energy consumption combined with improved environmental awareness. FPC will work closely with this market segment to educate manufacturers and developers about energy efficient new construction building design to create a supply of energy efficient manufactured homes.

B.2. ELIGIBILITY REQUIREMENTS

- 1. The home must be either single family manufactured detached or single family manufactured attached.
- 2. The home must be new -- additions do not qualify for this RMNH program.
- 3. A RMNH manufacturer meeting FPC standards must build the home. Manufacturer must comply with all HUD requirements. Developers must follow all procedures to ensure proper installation of high efficiency equipment.
- 4. The home must be accessible for verification of RMNH Program standards by a FPC employee or representative.
- 5. The home must be located in FPC's service area and must be metered by FPC.
- 6. The heating source must be an electric heat pump(s). No resistance heat is allowed except as back-up supplemental heat.

B.2.1 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. All equipment installations must meet manufacturer's instructions and specifications. Any HVAC contractor failing to meet HVAC manufacturer's specifications and FPC procedures may result in termination of participation in any or all FPC programs.
- 2. Equipment specification shall be according to Air Conditioning and Refrigeration Institute and Department of Energy test standards or by a FPC-recognized engineering standard using sound engineering estimates.
- 3. Equipment information such as model numbers, manufacturers, and Btuh capacity shall be made accessible to the FPC employee or representative.

- 4. Heat recovery water heaters must be equipped with a circulating pump and must be Association of Refrigerant Desuperheater Manufacturers (ARDM) certified, and be installed on an electric water heater.
- 5. Only mastic and fiber cloth or mastic with embedded 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.
- 6. If the equipment installed uses a scroll compressor larger than 36,000 Btuh, the air conditioning contractor, manufacturer or developer shall certify that a hard start kit was installed by the air conditioning contractor or the factory.

B.2.2 MANUFACTURER³ REQUIREMENTS

- 1. Manufacturers shall certify that the airflow meets manufacturer's specifications and recommendations for the system installed.
- 2. Refrigerant charge and type shall follow HVAC manufacturer's recommendations for the unit installed. The manufacturer, developer or HVAC Contractor will certify that the unit has been tested and is leak free.
- 3. All participating manufacturers or developers must comply with FPC manufacturer procedures specific to the level for which they are participating.
- 4. It is the responsibility of the FPC employee or representative to encourage each manufacturer, or interested party to move up to Level Two or Level Three.
- 5. The manufacturer, HVAC contractor or developer must correct any deficiency found in the installation or product when advised by a FPC employee or representative and notify the FPC employee or representative of compliance within 30 days.
- 6. The manufacturer or developer shall indemnify and hold FPC harmless against any and all injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.
- 7. Must meet the RMNH technical specifications of either Level One, Level Two, or Level Three.

³ Contractor and manufacturer are synonymous.

- 8. If the manufacturer or developer has a model center, FPC will pay to test the duct system for one home per model center to educate the manufacturer or developer as to why duct leakage is undesirable. If the manufacturer or developer does not have a model center, the manufacturer or developer shall supply a home to be used for testing and educational purposes.
- 9. The manufacturer or developer or his representative and the manufacturer's air conditioning contractor must be present at the time the educational duct test is conducted. If the manufacturer or developer agrees to participate in Level One prior to the educational test, and the air conditioning contractor is familiar with the RMNH Program requirements, then no test is required. If an educational duct test is required, a FPC employee or representative must be present.
- 10. The manufacturer or developer must correct any problems discovered during the duct test before that manufacturer or developer may become certified in the RMNH Program.
- 11. An incentive of \$15 will be paid to the builder or HVAC contractor completing the paperwork required by this program. This incentive is not to exceed \$15 regardless of the number of heat pump systems installed at any one FPC account (address). If alternate water heating is installed along with a heat pump, the incentive will not be paid on the water heating portion of the installation.

B.3. TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY

The RMNH Program defines three levels of eligibility and various options within each level with which a home manufacturer or developer may comply in order to receive home certification.

B.3.1 LEVEL ONE

Must incorporate any changes to the duct system that are indicated by the educational duct test, and construct duct systems which meet FPC standards (see Section B.2.1, item 5).

B.3.2 LEVEL TWO

Meet Level One requirements, and install a high efficiency heat pump with a minimum cooling efficiency of 10.2 EER⁴ (Energy Efficiency Rating), or 11.5 SEER (Seasonal Energy Efficiency Rating), with a minimum heating efficiency of 7.0 HSPF (Heating Season Performance Factor), or install a higher efficiency heat pump with a minimum cooling efficiency of 11.0 EER⁴ or 12.5 SEER, with a minimum heating efficiency of 7.5 HSPF. Ground source heat pumps must achieve a 2.9 COP (Coefficient of Performance) or higher. *Plus one of the following:*

- 1. Construct duct system in accordance with Manual D (a duct layout diagram must be provided).
- 2. Install a minimum of R-30 attic insulation.
- 3. Install a heat recovery unit.
- 4. Install a dedicated heat pump water heater.

B.3.3 LEVEL THREE

Manufactured homes built under this level shall be at least 30 percent more efficient than the Council of American Building Officials (CABO) 1993 Model Energy Code (MEC) as defined by the US Environmental Protection Agency's (EPA) Energy Star Program.

B.3.4 COOPERATIVE ADVERTISING

The following specifications must be met to be eligible for cooperative advertising:

- 1. Residency/units must be built to Level Three specifications.
- 2. Advertising may be applied to billboards, realtor magazines, or other long-life publications approved by FPC.
- 3. FPC must approve the advertising prior to placing the advertising.
- 4. FPC reserves the right to withhold payment for advertising which is untruthful or offensive, FPC shall be the final judge.

⁴ NOTE: If the EER value for the unit is available from the manufacturer, then the unit must satisfy the minimum EER criteria. Only if the cooling EER value is not available from the manufacturer may the unit comply with minimum cooling efficiency requirements using the SEER value.

B.4. INCENTIVES

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Level	Incentive		Requirements	Minimum Cooling Efficiency		Minimum Heating Efficiency	
				EER	SEER	HSPF	СОР
Level One	One Free Educational Duct Test		Residency/unit must have centrally ducted heat pump system and meet FPC duct sealing specifications				
Level Two	Incentive from Level One Plus	\$100	Level One and high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation	10.2	11.5	7.0	2.9
		\$300	Level One and high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation	11.0	12.5	7.5	3.0
		\$100	Level One and high efficiency electric heat pump, and a Heat Recovery Unit				
		\$200	Level One and high efficiency electric heat pump, and a Heat Pump Water Heater	•			
Level Three	Incentive from Levels One & Two, Plus FPC will match up to \$50 in co-op advertising per unit		Residency/unit must meet all Level One & Two requirements, Plus unit must qualify for EPA's Energy Star Program				

B.5. INCENTIVE PROCESSING

- 1. The FPC employee or representative, manufacturer, HVAC contractor, or park owner will complete an RMNH Program form which will record as a minimum the following information: manufacturers name, subdivision, address or lot and block of certified home, Level number, equipment information (manufacturer, model numbers, EER or SEER, HSPF or COP).
- 2. The manufacturer, developer or park owner will sign and date the form, and retain a copy.
- 3. If the home is assigned for inspection, the original RMNH Program form is given to the inspector. After the inspection has been successfully completed, the inspector returns the original form to FPC for payment processing.
- 4. If the home is not assigned for inspection, or after it has passed inspection, builder's invoices will be processed for payment.
- 5. FPC will then input "work completed" and "amount paid" to the customer database and file a copy of the program forms by manufacturer

B.6. REPORTING REQUIREMENTS

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

C. MULTI-FAMILY NEW CONSTRUCTION

C.1. OVERVIEW

The Multi-Family New Construction (MFNC) component promotes energy efficient new building construction in order to ensure that energy efficient rental apartments are available for customers.

It is FPC's objective to educate developers and property Management Companies about energy efficient new construction building design to create a supply of efficient multi-family rental apartments. In addition, educate customers and leasing agents about the benefits of energy efficient unit design to create the demand for energy efficient multi-family rental homes.

C.2. ELIGIBILITY REQUIREMENTS

- 1. The residency/unit must be multi-family rental, where multi-family is defined as any residential dwelling unit that is attached to another unit by a common wall, ceiling or floor. Any multi-family residential dwellings that are mastered metered (referred to as "Domestic/Commercial") shall be eligible to participate in this program.
- 2. The residency/unit must be new -- additions do not qualify for this MFNC program.
- 3. An MFNC builder, owner or agency meeting FPC standards must build the residency/unit. The builder must be a licensed building contractor and must comply with all Federal, State, and local codes.
- 4. The residency/unit must be accessible for verification of MFNC Program standards by a FPC employee or representative.
- 5. The residency/unit must be located in FPC's service area and must be metered by FPC.
- 6. The heating source must be an electric heat pump(s). No resistance heat is allowed except as back-up supplemental heat. (Exception: If the Building is over three stories in height, electric strip is allowed if a heat pump is not cost effective to install.)

C.2.1 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. All equipment installations must meet manufacturer's instructions and specifications. Any contractor failing to meet manufacturer's specifications and FPC procedures may result in termination of participation in any or all FPC programs.
- 2. FPC requires that equipment upgrades contained in Level 2 standards must result in a commensurate reduction in energy requirements before awarding an incentive.
- 3. Equipment specification shall be according to Air Conditioning and Refrigeration Institute and Department of Energy test standards 210/240/94 or by a FPCrecognized engineering standard using sound engineering estimates.
- 4. Minimum wall insulation is R-4 for masonry and R-11 for frame.
- 5. Equipment information such as model numbers, manufacturers, and Btuh capacity shall be made accessible to the FPC employee or representative.
- 6. Heat recovery water heaters must be equipped with a circulating pump and must be Association of Refrigerant Desuperheater Manufacturers (ARDM) certified, and be installed on an electric water heater.
- 7. Only mastic and fiber cloth or mastic with embedded 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.
- 8. If the equipment installed uses a scroll compressor larger than 36,000 Btuh, the air conditioning contractor or builder shall certify that a hard start kit was installed by the air conditioning contractor or the factory.

C.2.2 Contractor Requirements

- 1. Contractors shall certify that the airflow meets manufacturer's specifications and recommendations for the system installed.
- 2. Refrigerant charge and type shall follow manufacturer's recommendations for the equipment installed. The contractor will certify that the equipment has been tested and is leak free.
- 3. All participating contractors must comply with FPC contractor procedures specific to the level for which they are participating.
- 4. The contractor must correct any deficiency found in the installation or product when advised by a FPC employee or representative and notify the FPC employee or representative of compliance within 30 days.

- 5. The contractor shall indemnify and hold FPC harmless against any and all injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.
- 6. Must meet the MFNC technical specifications of either Level One, Level Two, or Level Three.
- 7. If the builder has a model apartment, FPC will pay to test the duct system for one residency/unit per model center to educate the builder as to why duct leakage is undesirable. If the builder does not have a model apartment or the residency/unit the builder is currently constructing may be used for demonstration purposes.
- 8. The builder or his representative and the builder's air conditioning contractor must be present at the time the educational duct test is conducted. If the builder agrees to participate in Level One prior to the educational test and the air conditioning contractor is already participating in the MFNC Program, then no educational test is required. If an educational duct test is required, a FPC employee or representative must be present.
- 9. The builder must correct any problems discovered during the duct test before that builder may become certified in the MFNC Program.
- 10. An incentive of \$15 will be paid to the builder or HVAC contractor completing the paperwork required by this program. This incentive is not to exceed \$15 regardless of the number of heat pump systems installed at any one FPC account (address). If alternate water heating is installed along with a heat pump, the incentive will not be paid on the water heating portion of the installation.

C.3. TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY

The MFNC Program defines three levels of eligibility and various options within each level which a builder may comply in order to receive a building certification.

C.3.1 LEVEL ONE

Must incorporate any changes to the duct system that are indicated by the educational duct test, and construct duct systems, which meet FPC specifications (see Section C.2.1, item 7).

C.3.2 LEVEL TWO

Meet Level One requirements, and install a high efficiency heat pump with a minimum cooling efficiency of 10.2 EER⁵ (Energy Efficiency Rating), or 11.5 SEER (Seasonal Energy Efficiency Rating), with a minimum heating efficiency of 7.0 HSPF (Heating Season Performance Factor), or install a higher efficiency heat pump with a minimum cooling efficiency of 11.0 EER⁵ or 12.5 SEER, with a minimum heating efficiency of 7.5 HSPF. Ground source heat pumps must achieve a 2.9 COP (Coefficient of Performance) or higher. *Plus one of the following:*

- 1. Construct duct system in accordance with Manual D
- 2. Install a minimum of R-30 attic insulation (Top floor only, all units).
- 3. Install a heat recovery unit.
- 4. Install a dedicated heat pump water heater.

C.3.3 LEVEL THREE

Residency/units built under this level shall be at least 30 percent more efficient than the Council of American Building Officials (CABO) 1993 Model Energy Code (MEC) as defined by the US Environmental Protection Agency's (EPA) Energy Star Program.

C.3.4 COOPERATIVE ADVERTISING

The following specifications must be met to be eligible for cooperative advertising:

- 1. Residency/units must be built to Level Three specifications.
- 2. Advertising may be applied to billboards, realtor magazines, or other long-life publications approved by FPC.
- 3. FPC must approve the advertising prior to placing the ad.
- 4. FPC reserves the right to withhold payment for advertising which is untruthful or offensive; FPC shall be the final judge.

⁵ NOTE: If the EER value for the unit is available from the manufacturer, then the unit must satisfy the minimum EER criteria. Only if the cooling EER value is not available from the manufacturer may the unit comply with minimum cooling efficiency requirements using the SEER value.

C.4. INCENTIVES

Level	Incentive		Requirements	Minimum Cooling Efficiency		Minimum Heating Efficiency	
				EER	SEER	HSPF	COP
Level One	One Free Educational Duct Test		Residency/unit must have centrally ducted system and meet FPC duct sealing specifications			,	
	Incentive from Level One Plus	\$100	Level One and high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation	10.2	11.5	7.0	2.9
Level Two		\$300	Level One and high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation	11.0	12.5	7.5	3.0
		\$100	Level One and high efficiency electric heat pump, and a Heat Recovery Unit		£		
		\$200	Level One and high efficiency electric heat pump, and a Heat Pump Water Heater				
Level Three	Incentive from Levels One & Two, Plus FPC will match up to \$50 in co-op advertising per unit		Residency/unit must meet all Level One & Two requirements, Plus unit must qualify for EPA's Energy Star Program				

The incentive payment structure builds on thermal and mechanical efficiencies as follows:

C.5. INCENTIVE PROCESSING

- 1. The FPC employee or representative, builder or HVAC contractor will complete an MFNC Program form which will record as a minimum the following information: builder's name, name of complex, address(s) or apartment numbers of certified residency/unit. Level Number (i.e.: 1, 2, 3), equipment information (manufacturer, model numbers, EER or SEER, HSPF or COP).
- 2. If payment is to be made to someone other than the builder, then the following information is required: Payee's name, address, Relationship to complex (Owner, Manager), name of complex, address(s) or apartment numbers of certified residency/unit. Level Number (i.e.: 1, 2, 3), equipment information (manufacturer, model numbers, EER or SEER, HSPF or COP).
- 3. The builder/owner or HVAC contractor will sign and date the form, and retain a copy.
- 4. When the complex is assigned for inspection, the original MFNC Program form is given to the inspector. After the inspection has been successfully completed, the inspector returns the original form to FPC for payment processing.
- 5. FPC will then input "work completed" and "amount paid" to the customer database and file copies of the program form by builder.

C.6. REPORTING REQUIREMENTS

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

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS LOW-INCOME WEATHERIZATION ASSISTANCE PROGRAM

1. **PROGRAM OVERVIEW**

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Florida Power Corporation's (FPC) Low-income Weatherization Assistance Program (LIWAP) is a custom energy conservation program. It is designed to develop a working relationship with weatherization providers. The LIWAP seeks to achieve the following goals:

- 1. Integrate FPC's LIWAP procedures with the Department of Community Affairs (DCA) and local weatherization providers to deliver energy efficiency measures to low-income families.
- 2. Identify and educate agencies and low income customers about energy saving opportunities to upgrade home energy efficiency.
- 3. Increase low-income families' participation in FPC's DSM programs.
- 4. Minimize "lost opportunities" in the existing marketplace.

2. ELIGIBILITY REQUIREMENTS

Low-income will be defined as 125 percent of the federal OMB poverty guidelines published annually in the Federal Register. The DCA is responsible for providing annual updates to participating providers. Additional requirements are as follows:

- The residence must be in FPC's service area and a residential metered customer.
- Must meet Florida's weatherization low-income criteria in addition to income requirements stated above.
- All installations must be accessible for verification by a FPC representative.
- Homes must be greater than two years old.
- Homes having previously received FPC incentives for listed measures are not eligible for the same measure.
- A Florida approved provider or their approved contractors must perform all work. Participating FPC contractors may be used.

Low Income Weatherization Assistance

2.1 CONTRACTOR REQUIREMENTS

The Department of Community Affairs and local weatherization providers are responsible for all work performed. Local providers may also use FPC participating contractors for attic insulation and duct testing/repair.

- 1. Local providers 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 FPC's specifications where applicable.
- 3. Local providers and their agents must correct any deficiencies found in the installation or materials identified by FPC.
- 4. DCA/Providers shall indemnify and hold harmless FPC from any and all losses, liabilities, injuries, damages claims or costs whatsoever caused by items furnished or services rendered.
- 5. All FPC contractors shall indemnify and hold harmless FPC from any and all losses, liabilities, injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.
- 6. FPC 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.

2.2 EQUIPMENT/MATERIALS AND INSTALLATION SPECIFICATIONS

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

- Weatherization Installation Standards of the U.S. Department of Energy.
- Equipment must meet manufacturers' specification and installation procedures.
- All work shall be performed to constitute a finished product.
- Materials shall be free of defects and covered under warranty for at least one year.
- Installation procedures must comply with all federal, state and local codes.

• All equipment installations must meet manufacturer's instructions and specifications. Any contractor failing to meet manufacturer's specifications and FPC procedures may result in termination of participation in any or all FPC programs.

2.3 LOCAL PROVIDERS RESPONSIBILITY

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The Department of Community Affairs, through their local weatherization providers, will be responsible for the following:

- 1. Qualify all participants using federal and state guidelines outlined in Section 2.
- 2. Conduct the National Energy Audit (NEAT) or any FPC approved energy audit on all eligible low-income weatherization installations.
- 3. Provide FPC with the following customer information at the time of application:
 - Client information
 - A list of installed measures and, where appropriate, pre-existing conditions
 - Pre and post CFM 50 readings
 - Itemized invoice with a brief description of installed measures (incentive measures only) and program incentive for each weatherized home, or the FPC/LIWAP data information form.
- 4. Qualify and install measures by FPC's standards and procedures. All installations shall comply with FPC specifications (see Sections 4.2 through 10.2).
- 5. Provide FPC random access to the weatherized homes for program evaluation and inspection.
- 6. Deliver energy education to weatherization clients.
- 7. Invoice FPC for program approved installed measures on monthly basis.

3. INCENTIVES AND ELIGIBLE MEASURES

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

Weatherization Measure	Minimum Measure Requirement	Incentive Amount	Additional Requirements	
	Insulate to at least R-19	\$15 per 100sq ft. up to a max of \$75	Must be a NEAT	
Attic Insulation	Insulate to at least R-30	Insulate to at least R-30 \$20 per 100sq ft. up to a max of \$100		
		\$30 for the first unit tested	1. LIWAP inspection	
Duct Leakage Test	Centrally ducted cooling system with electric heat	\$20 for each additional unit at the same residence	2. Must have electric hea (ducted or non-ducted)	
	Non-Ducted Electric Heat	25% up to \$50	1. LIWAP Inspection	
Duct Leakage Repair	Electric Ducted Heat	50% up to \$100	2. Completed Duct Test	
Reduce Air Infiltration	Must demonstrate a minimum reduction of 1500 cfm at 50 pascals in electrically heated homes Not to exceed a minimum of 0.35 ACH	\$75	Must be a NEAT recommendation	
Electric Hot Water Reduction	Wrap electric water heater and, if needed, lower temperature setting / repair hot water leaks, and replace water heater	\$25	LIWAP Inspection	
HVAC Maintenance	Centrally ducted Electric Heat and Cooling Systems \$40		LIWAP Inspection	
High Efficiency	10.2 EER or 12.0 SEER and 2.9 COP or 7.0 HSPF	\$100		
Heat Pump Replacing a Heat Pump	11.0 EER or 13.0 SEER and 3.0 COP or 7.5 HSPF	\$ 150		
High Efficiency	10.2 EER or 12.0 SEER and 2.9 COP or 7.0 HSPF	\$250		
Heat Pump Replacing Electric Resistance Heat	11.0 EER or 13.0 SEER and 3.0 COP or 7.5 HSPF	\$350		
Heat Recovery Unit	Connected to an Electric Water Heater \$100		LIWAP Inspection	
Dedicated Heat Pump Water Heater		\$200	LIWAP Inspection	
Supplemental	High efficiency electric heat pump and either ceiling insulation or duct leakage repair	\$ 25		
Incentive Bonus	High efficiency electric heat pump and ceiling insulation and duct leakage repair	\$ 50		

Notes:

1. All non-matching incentives cannot exceed the actual cost of the measure.

2. A home is eligible to receive an incentive for each heat pump installed based on the efficiency level.

3. To qualify for the supplemental bonus, additional measures must be implemented within 90 days of heat pump installation.

4. In multi-family structures, FPC reserves the right to request bids from contractors to hold customer costs to a minimum.

4. CEILING INSULATION UPGRADE

4.1 PARTICIPATION REQUIREMENTS

- 1. Must meet the Eligibility Requirements outlined in Section 2.
- 2. Must be a recommendation from a LIWAP Audit.
- 3. The home must be at least two years old.
- 4. Eligible residences must have whole house electric air conditioning and/or whole house electric heating.
- 5. The weighted average R-value of the existing insulation over the total attic square footage (above conditioned space) must be less than R-12.
- 6. Any structure that has utilized any of FPC's ceiling insulation programs 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 FPC with a letter from his/her insurance company stating that the insulation was not covered.
- 7. The total ceiling area to be insulated must be greater than 100 square feet.
- 8. Mobile homes built after January 1, 1977 will be assumed to have an insulation value in excess of R-11 and will not be eligible to participate in this part of the LIWAP program unless documentation is provided to FPC stating that the actual existing insulation value is less than R-12.
- 9. Any home with "Knob and Tube Wiring" that is energized is not eligible.¹

4.2 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 R-19 or R-30. Insulation shall be added in increments of R-11, R-19, R-22, or R-30.
- 3. Flat roofs must have sufficient space to allow a minimum of 3 inches of air space above the insulation after insulation has been installed to the recommended R-value.

¹ National Electrical Code 1990, Article 324, Section 324-4

- 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-19 value throughout the entire area including knee walls.²
- 7. All attic access panels that are located in conditioned space must be insulated with a minimum R-19 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).³

4.3 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

² Florida "1993 Energy Efficiency Code for Building Construction" Section 604.1.A.1 Walls Considered Ceiling Area

³ Florida "1993 Energy Efficiency Code for Building Construction" Section 604.1ABC.1.1 Ceilings With Blown-In Insulation

5. DUCT LEAKAGE REPAIR

LIWAP duct repair is designed to train and encourage weatherization providers on the identification and repair procedures associated with duct leakage. Blower door or duct blaster equipment will be used as a diagnostic tool to locate duct leakage and provide quality control. This LIWAP component is available to all residential customers having a centrally ducted system with electric heating and cooling, provided the duct system is easily accessible.

5.1 **PARTICIPATION REQUIREMENTS**

- 1. Must meet the Eligibility Requirements outlined in Section 2.
- 2. Must be a recommendation from a LIWAP Audit.
- 3. Repair recommendations must have been the result of a FPC-approved duct test.
- 4. The customer's duct system 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.
- 5. The duct must be accessible for repair.
- 6. 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.
- 7. Duct and HVAC systems must be in adequate condition to accommodate duct leakage repair.

5.2 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 FPC when performing the duct test.

5.3 CONTRACTOR REQUIREMENTS

- 1. Must meet the Contractor Requirements outlined in Section 2.1.
- 2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning contractor.
- 3. All participating contractors must have attended and successfully completed a FPC-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, FPC has adopted the National Fuel Gas Code's "Appendix H: Recommended Procedure for Safety Inspection of an Existing Appliance Installation."
- 5. A list of FPC contractors will be furnished to local weatherization providers for duct testing and repair. Providers will contract directly with FPC duct repair contractors for all repair work.

5.4 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

6. HIGH EFFICIENCY ELECTRIC HEAT PUMPS

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

6.1 **PARTICIPATION REQUIREMENTS**

- 1. Must meet the Eligibility Requirements outlined in Section 2.
- 2. Must be a recommendation from a LIWAP Audit.

6.2 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.⁴
- 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.

⁴ 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, which will use the COP value listed.

- 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.

6.3 CONTRACTOR REQUIREMENTS

- 1. Must meet Contractor Requirements in Section 2.1.
- 2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning contractor.
- 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 FPC within 30 days if there was an emergency replacement due to equipment failure.
- 5. The agency shall have 6 months from date if installation to submit all "High Efficiency Equipment Forms" after which they will become ineligible for incentive.

7. HIGH EFFICIENCY ALTERNATE ELECTRIC WATER HEATING

7.1 PARTICIPATION REQUIREMENTS

- 1. Must meet the Eligibility Requirements outlined in Section 2.
- 2. Must be a recommendation from a LIWAP Audit.
- 3. Must have an electric water heater.

7.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. All heat recovery units must be installed in accordance with manufacturer's 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. Heat recovery water heaters must be equipped with a circulating pump and must be Association of Refrigerant Desuperheater Manufacturers (ARDM) certified.
- 4. Heat recovery unit must be installed on an electric water heater.
- 5. All equipment shall be new and not refurbished, previously installed, or used.

7.3 CONTRACTOR REQUIREMENTS

Must meet the Contractor Requirements outlined in Section 2.1 and 6.3

8. HEATING AND AIR CONDITIONING MAINTENANCE (HAC)

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

8.1 PARTICIPATION REQUIREMENTS

- 1. Must meet Eligibility Requirements outlined in Section 2.
- 2. Must be a recommendation from a LIWAP Audit.
- 3. Must have centrally ducted electric heating and cooling.

8.2 EQUIPMENT/SERVICE AND INSTALLATION SPECIFICATIONS

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

Filter:

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

System Controls and Operation:

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

Evaporator:

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

Blower and Blower Drive:

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

Condenser:

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

Compressor:

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

Heating System:

• Check electric heat strips

8.3 CONTRACTOR REQUIREMENTS

Must meet Contractor Requirements in Sections 2.1 and 6.3.

9. WATER HEATER

It is the intent of this portion of the program to save energy through adding additional insulation to the 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.

9.1 PARTICIPATION REQUIREMENTS

- 1. Must meet Eligibility Requirements outlined in Section 2.
- 2. Must be a recommendation from a LIWAP Audit.
- 3. Must have an electric water heater.

9.2 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.
- 4. Replacement water heaters must have an EF = 0.88 or higher.

9.3 CONTRACTOR REQUIREMENTS

Must meet Contractor Requirements in Section 2.3.

10. AIR INFILTRATION REDUCTION

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

10.1 PARTICIPATION REQUIREMENTS

- 1. Must meet Eligibility Requirements outlined in Section 2.
- 2. Must be a recommendation from a LIWAP Audit.
- 3. Must be able to achieve an infiltration reduction of at least 1,500 cfm at 50 pascals.
- 4. Home must meet ASHRA Standard 90.2 as a minimum air infiltration level when infiltration sealing is completed.

10.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

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

10.3 CONTRACTOR REQUIREMENTS

Must meet Contractor Requirements in Section 2.3 and 6.3.

11. INCENTIVE PROCESSING

Weatherization providers will submit the following information with all invoices by the tenth workday of each month (not to exceed 45 days from the date of installation):

- Client information
- A list of installed measures and, where appropriate, pre-existing conditions
- Pre and post CFM 50 readings
- Itemized invoice with a brief description of installed measures (incentive measures only) and program incentive for each weatherized home, or the FPC/LIWAP data information form.

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

12. REPORTING REQUIREMENTS

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

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS RESIDENTIAL ENERGY MANAGEMENT (RATE SCHEDULES RSL-1 & RSL-2)

1. **PROGRAM OVERVIEW**

The Residential Energy Management Program is a direct load control program that reduces FPC's demand during peak or emergency conditions by temporarily interrupting customer equipment (electric central heating and water heater) for specified periods of time. Customers currently on Rate Schedule RSL-1 may remain on RSL-1 unless they choose to exit the program or make any equipment schedule changes. Any RSL-1 customers who elect to exit the program will only be eligible for the RSL-2 rate schedule. New program participants (i.e., customers not currently on RSL-1) will only be eligible for the RSL-2 rate schedule.

Service under the RSL-1 and RSL-2 rate schedules is subject to FPC's currently effective and filed "General Rules and Regulations for Electrical Service." Standby or resale is not permitted under either of these rate schedules.

2. ELIGIBILITY REQUIREMENTS

- 1. The residence must be in FPC's service area and be within the range of the Company's Energy Management system.
- 2. The customer must be eligible for residential service under Rate Schedule RSL-1 or RSL-2 (see the RSL-1 and RSL-2 tariffs).

2.1 PARTICIPATION REQUIREMENTS

- 1. Must utilize both electric water heating and centrally ducted electric heating system(s).
- 2. New participants on the RSL-2 rate schedule shall have a minimum average monthly usage of 600 kWh for the months of November through March (based on the most recent billing history or, where not available, a projection for those months).
- 3. All installations must be accessible for inspection by a FPC employee or representative.
- 4. A FPC-approved, licensed contractor must complete all work.
- 5. Any customer requesting removal from this program will be ineligible to participate for a period of twelve months.

Residential Energy Management Program

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2.2 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. The contractor shall comply with all Residential Energy Management Program Standards as specified by FPC and stated in the most current copy of the Energy Management Operations Manual.

2.3 CONTRACTOR REQUIREMENTS

- 1. Contractors participating in the installation of Energy Management equipment must meet the financial criteria set forth in the FPC Purchasing Standards for contractors doing business with FPC.
- 2. All contractors installing Energy Management devices within the confines of Pinellas County must hold an electrical contractor's license and be approved by the Pinellas County Construction Licensing Board to practice in Pinellas County. All contractor employees who are certified to install Energy Management must hold an electrical journeyman's card or greater. Those contractors outside of Pinellas County must comply with the licensing requirements of the area in which they are contracted to do installations.
- 3. The contractor must comply with all Federal, State and local licensing, codes and regulations.
- 4. Contractors are responsible for the work to be performed, the necessary tools and equipment, and the supervision of employees in order to meet the work specifications and the required completion date.
- 5. Contractors shall indemnify and hold FPC harmless against any and all injuries, damages; claims or cost, whatsoever caused by items furnished or services performed.
- 6. Contractors must be insured as per specifications in the bid agreement (Services and General Terms & Conditions form).

3. INCENTIVES

The various options and associated credits are shown in the RSL-1 and RSL-2 tariffs.

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS BUSINESS ENERGY CHECK PROGRAM

1. **PROGRAM OVERVIEW**

The Business Energy Check Program is an energy audit program that provides business customers with information about their energy use. The program provides recommendations on how customers can improve the energy efficiency of their facilities. It serves as the foundation for participation in other commercial and industrial DSM programs.

An FPC representative enters the participant's building, gathers information, makes energy efficiency recommendations, and discusses the applicability of other FPC programs with the participant.

The Business Energy Check Program consists of two types of energy audits:

• Level 1: Free Walk-Through Audit (Inspection)

The walk-through audit is an on-site energy evaluation conducted by an FPC representative and is provided at no charge to the customer. Recommendations are made to the customer, which may include operational changes or equipment modifications. The auditor provides information about other FPC programs that are designed to assist the customer in improving the energy efficiency of the facility.

• Level 2: Paid Walk-Through Audit (Energy Analysis)

The paid audit is a more detailed energy use evaluation that requires more data collection and analysis. A fee is charged to the customer for this service. For a paid audit, in addition to the items mentioned for the free walk-through audit, the auditor focuses on more in-depth information such as operating, maintenance, and load characteristics. An analysis on the building is performed and a written report is presented to the participant.

2. ELIGIBILITY REQUIREMENTS

1. The customer must be a business customer located in FPC's service territory and served by a metered FPC account.

3. Participation Requirements

- 1. Customers may not have more than one audit completed within a two-year period. However, a customer may participate in both a Level 1 and Level 2 audit within this time frame. FPC reserves the right to update audits and schedule field visits on a per need basis.
- 2. Participant must allow an FPC representative onto the premises to perform the audit.
- 3. Participants in the Level 2 audit must pay a nominal fee for this service as follows:
 - Customers whose average monthly consumption is 10,000 kWh or less: \$35.
 - Customers whose average monthly consumption is over 10,000 kWh: \$3.50 per 1,000 kWh up to \$4,000 maximum.

4. INCENTIVES

Level 1 audit: There are no incentives associated with the Level 1 audit.

Level 2 audit: If the participant implements any or all of the recommended measures, he will be refunded an amount, less \$35, toward the incurred costs of implementing the measures.

5. **Reporting Requirements**

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

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS BETTER BUSINESS PROGRAM

1. **PROGRAM OVERVIEW**

The Better Business Program is the "umbrella" efficiency program designed to improve the energy efficiency of existing commercial facilities. The program seeks to meet the following overall goals:

- 1. Improve customer comfort levels through energy efficient equipment.
- 2. Obtain energy and demand reductions that are significant, permanent and measurable.
- 3. Enhance contractor awareness of the capabilities of energy efficient technologies.
- 4. Educate customers about additional opportunities to upgrade facility energy efficiency.
- 5. Obtain cost-effective resources from the marketplace.
- 6. Minimize "lost opportunities" in the existing commercial market.

2. ELIGIBILITY REQUIREMENTS

- 1. All measures must have been recommended during an FPC energy audit which must have been done within the past 2 years. (*Exceptions: Participation in the Motors component does not require an audit. Also, in emergency cases, the customer may have HVAC equipment installed prior to an audit being conducted. However, the audit must be completed within 30 days of the emergency installation of HVAC equipment.*)
- 2. Equipment and measures must be installed in facilities that are located in the FPC service territory and served by a metered FPC account.
- 3. FPC must be permitted to inspect the installation of all measures and equipment prior to issuing any incentive payments.

2.1 CONTRACTOR REQUIREMENTS

1. All participating contractors must comply with FPC contractor procedures specific to the program component in which they are participating. Failure to do so may result in termination of participation in any or all FPC 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 an FPC representative and notify FPC of compliance within 30 days.
- 4. The contractor shall indemnify and hold FPC harmless against any and all injuries, damages, claims or costs, whatsoever, caused by items furnished or services rendered.
- 5. The contractor must comply with all Federal, State and local codes and regulations and have the appropriate license(s) for the work to be performed.
- 6. The contractor must follow manufacturers' specifications and procedures; failure to do so may result in termination of participation in any or all FPC programs.
- 7. The contractor shall notify FPC of any incident occurring during installation of a conservation measure or any follow-up procedure within 5 working days of incident.
- 8. The contractor must provide FPC with documentation and maintain in force the following insurance policies: (*Exception: Section 6 dealing with HVAC contractors is exempt from this provision.*)
 - Workers' 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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3. INCENTIVES

The incentive payment structure is as follows:

Program Component	Incentive		
Heat Pumps	\$100 for minimum cooling efficiency of 10.2 EER/12.0 SEER and minimum heating efficiency of 2.9 COP/7.0 HSPF		
less than or equal to 65,000 Btu/h	\$300 for minimum cooling efficiency of 11.0 EER/13.0 SEER and minimum heating efficiency of 3.0 COP/7.5 HSPF		
Unitary A/C and Heat Pumps greater than 65,000 Btu/h	\$100/kW reduced		
Package Terminal Heat Pumps (PTHPs)	\$100/kW reduced		
Air-Cooled and Water- Cooled Electric Chillers	\$100/kW reduced		
	\$2/HP for 1-9.99 HP motors		
Motors	\$1.50/HP for 10-29.99 HP motors		
	\$1/HP for 30+ HP motors		
Roof Insulation	\$75 to bring insulation level up to a minimum of R-19		
Upgrade	\$100 to bring insulation level up to a minimum of R-30		
	50% of test cost up to \$30 for first unit tested		
Duct Test	50% of test cost up to \$20 for each additional unit tested		
	25% of the repair cost up to a maximum of \$50 per unit for facilities with non-ducted electric heat		
Duct Repair	50% of the repair cost up to a maximum of \$100 per unit for facilities with ducted electric heat		
Window Film	\$0.27/sq. ft. up to \$125 (existing east and west windows only)		
Window Film	Up to \$50 per room for facilities with multiple guest rooms (existing east and west windows only)		

4. INCENTIVE PROCESSING

- 1. On-site inspections will be performed on at least 10% of the completed projects for each program measure.
- 2. An FPC inspector will complete a Better Business Program form which will record as a minimum the following information: customer's name, address and account number. In addition, equipment information (manufacturer, model numbers, EER or SEER, HSPF or COP) will be gathered at that time.
- 3. The customer will sign and date the FPC form that relates to each applicable measure installed.
- 4. In addition, project-supporting documents will be reviewed for program compliance.
- 5. After the inspection has been successfully completed, the FPC inspector will return the original form to FPC for payment processing.
- 6. Incentives will not be paid until the review (and inspection when required) is/are completed.
- 7. A copy of the customer's invoice must accompany the incentive application for all measures completed.
- 8. FPC will then input the completed paperwork into the computer system and file a copy of the Better Business form.
- 9. The customer has the option of receiving the incentive in the form of a credit on their account or in the form of a rebate check.

5. **REPORTING REQUIREMENTS**

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

6. HVAC EQUIPMENT

6.1 **PARTICIPATION REQUIREMENTS**

Small Heat Pumps (≤ 65,000 Btu/h)

- 1. Must meet the Eligibility Requirements as outlined in Section 2.
- 2. A copy of the customer's invoice (itemizing equipment costs, non-equipment costs and the incentive, where applicable), along with the heating/cooling sizing documentation, must accompany the incentive form.

Unitary A/C and Heat Pumps (> 65,000 Btu/h) and Air-Cooled and Water-Cooled Electric Chillers

- 1. Must meet the Eligibility Requirements as outlined in Section 2.
- 2. The customer must provide proof of HVAC project cost, project contract date and an itemized inventory of equipment installed. This qualification is typically met by submitting copies of invoices or purchase orders.
- 3. Air Conditioning and Refrigeration Institute (ARI) certified efficiency data at Standard Rating Conditions must be attached to the incentive form.
- 4. Cooling and heating load calculations must be performed if the capacity of the high efficiency unit differs from that of the original unit or if the high efficiency unit is adding cooling or heating to previously unconditioned space.

Package Terminal Heat Pumps (PTHPs)

- 1. Must meet the Eligibility Requirements as outlined in Section 2.
- 2. In order to qualify for an incentive, the customer must provide proof of project cost and an itemized inventory of equipment installed. This qualification is typically met by submitting copies of invoices or purchase orders.
- 3. Air Conditioning and Refrigeration Institute (ARI) certified efficiency data at Standard Rating Conditions must be attached to the incentive form.

6.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

Small Heat Pumps (≤ 65,000 Btu/h)

- 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 or other nationally recognized testing laboratories in accordance with UL standards as appropriate.
- 2. All equipment installations must meet manufacturers' instructions and specifications.
- 3. All equipment shall be new and not refurbished, previously installed, or used.
- 4. An HVAC sizing calculation shall be performed by the contractor and shall be attached to the recommendation form when submitted for incentive payment. Cooling and heating design loads shall be determined using a Manual J or ASHRAE approved sizing calculation. Copies of all calculations must be provided to both the customer (left with the new equipment) and to FPC. Design conditions shall be those applicable to the FPC service area in which the facility is located. The contractor will certify that the unit was sized according to manufacturer specifications.
- 5. The installed air handler/outdoor condensing unit combination must satisfy both the cooling and the heating minimum efficiency requirements described in Section 6.4.
- 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. 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.
- 7. Contractors shall certify that the airflow meets manufacturer's specifications and recommendations for the system installed.
- 8. Contractors shall certify that a "hard start" kit has been installed to manage starting current on all scroll compressor units over 36,000 Btu/h.
- 9. Refrigerant charge and type shall be according to manufacturer's recommendations for unit installed. The contractor will certify that the proper charge was installed and that the unit has been tested and is leak free.
- 10. 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.

- 11. The contractor shall check that the controlling thermostat has been properly leveled, that the anticipator has been properly set and that the thermometer on the thermostat is correct to within two degrees Fahrenheit.
- 12. The contractor will be encouraged to use mastic on all new connections.
- 13. Air handling units, mechanical closets and enclosed support platforms shall be sealed from unconditioned air.
- 14. Heat pump must be all electric.

Unitary A/C and Heat Pumps (> 65,000 Btu/h) and Air-Cooled and Water-Cooled Electric Chillers

- 1. When applicable, 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 or other nationally recognized testing laboratories in accordance with 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 ARI rating procedure (standard 210/240-94).
- 3. Cooling and heating load calculations must be performed if the capacity of the high efficiency unit differs from that of the original unit or if the high efficiency unit is adding cooling or heating to previously unconditioned space.
- 4. All equipment installations must meet manufacturers' instructions and specifications.
- 5. All equipment shall be new and not refurbished, previously installed, or used.
- 6. An HVAC sizing calculation shall be performed by the contractor and shall be attached to the recommendation form when submitted for incentive payment. Cooling and heating design loads shall be determined using a Manual J or ASHRAE approved sizing calculation. Copies of all calculations must be provided to both the customer (left with the new equipment) and to FPC. Design conditions shall be those applicable to the FPC service area in which the facility is located. The contractor will certify that the unit was sized according to manufacturer specifications.
- 7. The installed air handler/outdoor condensing unit combination must satisfy both the cooling and the heating minimum efficiency requirements described in Section 6.4.
- 8. Contractors shall certify that the airflow meets manufacturer's specifications and recommendations for the system installed.

- 9. Contractors shall certify that a "hard start" kit has been installed to manage starting current on all scroll compressor units over 36,000 Btu/h.
- 10. Refrigerant charge and type shall be according to manufacturer's recommendations for unit installed. The contractor will certify that the proper charge was installed and that the unit has been tested and is leak free.
- 11. 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.
- 12. The contractor shall check that the controlling thermostat has been properly leveled, that the anticipator has been properly set and that the thermometer on the thermostat is correct to within two degrees Fahrenheit.
- 13. The contractor will be encouraged to use mastic on all new connections.
- 14. Air handling units, mechanical closets and enclosed support platforms shall be sealed from unconditioned air.
- 15. HVAC equipment must be all electric.

Package Terminal Heat Pumps (PTHPs)

- Packaged terminal heat pump heating and cooling efficiencies (at ARI Standard 310-87 Rating Conditions) must meet or exceed the minimum efficiencies listed in Section 6.4. Packaged terminal heat pumps must be sized to handle the heating load at 31 degrees Fahrenheit outdoor air temperature without the use of backup strip heat. No incentive is offered for packaged terminal air conditioners that use only electric resistance elements for heating.
- 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 ARI rating procedure (standard 210/240-94).
- 3. All equipment installations must meet manufacturers' instructions and specifications.
- 4. All equipment shall be new and not refurbished, previously installed, or used.
- 5. Contractors shall certify that the airflow meets manufacturer's specifications and recommendations for the system installed.
- 6. Refrigerant charge and type shall be according to manufacturer's recommendations for unit installed. The contractor will certify that the proper charge was installed and that the unit has been tested and is leak free.
- 7. Package Terminal Heat pump must be all electric.

6.3 CONTRACTOR REQUIREMENTS

- 1. Must meet the Contractor Requirements as outlined in Section 2.1.
- 2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning Contractor.
- 3. Contractors must demonstrate their ability 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 FPC within 30 days if there was an emergency replacement due to equipment failure.

6.4 TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY

Small Heat Pumps (<65,000 Btu/h)

	MINIMUM COOLING EFFICIENCY		HEATING IENCY	INCENTIVE
EER	SEER	HSPF	СОР	per Heat Pump
10.2	12.0	7.0	2.9	\$100
11.0	13.0	7.5	3.0	\$300

Unitary AC and Heat Pumps > 65,000 Btu/h

Equipment Type and Size Range	1997 State Energy Code Standard	Baseline Efficiency	Minimum Efficiency Eligible for Incentive		
AIR-COOL	AIR-COOLED AIR CONDITIONERS AND HEAT PUMPS				
65,000-135,000 Btu/h	8.9 EER	8.9 EER	10.0 EER		
135,001-760,000 Btu/h	8.5 EER	8.5 EER	9.5 EER		
over 760,000 Btu/h	8.2 EER	8.2 EER	9.5 EER		
WATER-COOLED AIR CONDITIONERS AND HEAT PUMPS					
65,000-135,000 Btu/h	10.5 EER*	10.5 EER*	11.5 EER*		
over 135,000 Btu/h	9.6 EER	9.6 EER	10.5 EER		

^a Water-cooled EER is at Standard Rating of 85° F entering water

Cooling Consoits	Heating Efficiency (COP)		Cooling Efficiency (EER)	
Cooling Capacity (Btu/h)	Baseline Efficiency	Minimum Efficiency Eligible for Incentive	Baseline Efficiency	Minimum Efficiency Eligible for Incentive
≤7,000	1.0	3.0	9.5	9.6
7,001-8,000	1.0	3.0	9.2	9.3
8,001-9,000	1.0	3.0	9.2	9.5
9,001-10,000	1.0	2.8	9.3	10.0
10,001-11,000	1.0	2.8	8.9	9.0
11,001-12,000	1.0	2.8	8.8	9.0
12,001-13,000	1.0	2.8	8.4	9.0
13,001-14,000	1.0	2.8	8.6	8.7
14,001-15,000	1.0	2.8	8.7	8.8
>15,000	1.0	2.8	8.0	8.1

Packaged Terminal Heat Pumps (PTHP's)

Air-cooled and Water-cooled Electric Chillers

Equipment Type and Size Range	1997 State Energy Code Standard	Baseline Efficiency	Minimum Efficiency Eligible for Incentive	
	WATER-COOLED ELECT	TRIC CHILLERS		
under 150 tons	0.93 kW/ton (3.8 COP)	0.85 kW/ton (4.4 COP)	0.77 kW/ton (4.6 COP)	
150-300 tons	0.84 kW/ton (4.2 COP)	0.72 kW/ton (4.9 COP)	0.65 kW/ton (5.4 COP)	
over 300 tons (R-22)	0.68 kW/ton (5.2 COP)	0.66 kW/ton (5.3 COP)	0.63 kW/ton (5.6 COP)	
over 300 tons (non-CFC)	0.74 kW/ton (4.7 COP)	0.70 kW/ton (5.0 COP)	0.63 kW/ton (5.6 COP)	
AIR-COOLED ELECTRIC CHILLERS				
under 150 tons	1.30 kW/ton (2.7 COP)	1.3 kW/ton (2.7 COP)	1.25 kW/ton (2.8 COP)	
150 tons and larger	1.40 kW/ton (2.5 COP)	1.4 kW/ton (2.5 COP)	1.28 kW/ton (2.7 COP)	

7. MOTORS

7.1 PARTICIPATION REQUIREMENTS

- 1. Must meet the Eligibility Requirements as outlined in Section 2.
- 2. Motors must meet or exceed the minimum efficiency requirements listed under Section 7.3
- 3. Motor replacement projects which consist exclusively of motors 25 hp and smaller must include a minimum of five (5) energy efficient motors at one site (can be any combination of 1-25 hp motors) to qualify for an incentive.
- 4. Customer must provide proof of project costs and an itemized inventory of installed equipment.

7.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. Only polyphase motors are eligible for an incentive.
- 2. Rewound motors do not qualify for incentives.

7.3 TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY

The following table presents the minimum efficiency (full-load nominal efficiency) required for incentive eligibility. The minimum efficiency requirement is the same for all types of motors and all speeds.

HP	Baseline Efficiency	Minimum Efficiency Eligible for Incentive
1	82.5 %	84.0 %
1.5	84.0 %	84.0 %
2	84.0 %	84.0 %
3	86.5 %	87.5 %
5	87.5 %	87.5 %
7.5	88.5 %	89.5 %
10	89.5 %	90.2 %
15	91.0 %	91.1 %
20	91.0 %	92.0 %
25	91.7 %	92.4 %
30	92.4 %	92.5 %
40	93.0 %	93.1 %
50	93.0 %	93.1 %
60	93.6 %	93.7 %
75	94.1 %	94.2 %
100	94.1 %	94.6 %
125	94.5 %	94.6 %
150	95.0 %	95.1 %
200	95.0 %	95.1 %
250	NA	95.4 %

8. **ROOF INSULATION UPGRADE**

8.1 **PARTICIPATION REQUIREMENTS**

- 1. Must meet the Eligibility Requirements as outlined in Section 2.
- 2. Building must be at least two years old at the time of the audit. New construction is not eligible to participate in this program.
- 3. The weighted average R-value of the existing insulation over the total roof square footage (above conditioned space) must be less than R-12.
- 4. Eligible facilities must have whole-facility electric air conditioning and/or whole-facility electric heating.
- 5. 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 uncontrollable circumstances, 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 FPC with a letter from their insurance company stating that the insulation loss was not covered by insurance.
- 6. Total square footage of the area to be insulated must be greater than 500 square feet.
- 7. Any facility with "Knob and Tube Wiring" that is energized is not eligible. (National Electrical Code 1990, Article 324, Section 324-4).

8.2 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 R-19 or R-30. Insulation will be added in increments of either R-11, R-19, R-22 or R-30.
- 3. Flat roofs must have sufficient space to allow a minimum of 3 inches of air space above the insulation after insulation has been installed to proposed 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-19 value throughout the entire area.
- 7. The insulation must not cover existing soffits or any other type of ventilation.
- 8. All attic access panels that are located in conditioned space must be insulated with a minimum R-19 batt permanently attached.
- 9. Radiant barriers will not be allowed as a substitute for insulation in this program.
- 10. 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). (Florida "1993 Energy Efficiency Code for Building Construction" Section 604.1 ABC.1.1 Ceilings With Blown-In Insulation).

8.3 CONTRACTOR REQUIREMENTS

- 1. Must meet the Contractor Requirements as outlines 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

9. DUCT TEST AND LEAKAGE REPAIR

9.1 PARTICIPATION REQUIREMENTS

- 1. Must meet the Eligibility Requirements as outlined in Section 2.
- 2. Repair recommendations must have been the result of an FPC-approved duct test.
- 3. The customer's premise 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.
- 4. The duct must be easily accessible for repair.
- 5. Multi-space units greater than one story in height may have only the top floor duct systems(s) repaired due to health and safety concerns.
- 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.

9.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. All equipment installations must meet manufacturers' instructions and specifications.
- 2. Only mastic and fiber cloth or mastic with embedded 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 UL 181 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 FPC when performing the duct test.

9.3 CONTRACTOR REQUIREMENTS

- 1. Must meet the contractor requirements as outlined in Section 2.1.
- 2. Must be a licensed Mechanical Contractor, Class A, B, or C Air-Conditioning contractor.

- 3. All participating contractors must have attended and successfully completed a FPC-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 facilities 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, FPC has adopted the National Fuel Gas Code's "Appendix H: Recommended Procedure for Safety Inspection of an Existing Appliance Installation."
- 5. Multi-space units greater than one story in height may have only the top floor duct systems(s) repaired due to health and safety concerns. Contractor must perform blower door test prior to repair. Contractor must test out after repairs to ensure no negative pressures were created due to duct repair.

9.4 INSPECTION REQUIREMENTS

- 1. 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

10. WINDOW FILM

10.1 PARTICIPATION REQUIREMENTS

- 1. Must meet the Eligibility Requirements as outlined in Section 2.
- 2. Existing windows must have shading coefficients of 0.84 or greater.
- 3. Existing windows can not be more than 50% shaded by external forces.
- 4. Jalousie, double or triple pane, frosted or plastic windows and skylights are not eligible.
- 5. Facilities with multiple guestrooms, such as hotels, motels, hospitals and assisted-care living facilities, may receive incentives up to \$50 per room.
- 6. Only east and west facing windows are eligible for the incentive.

10.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. All materials must meet manufacturers' instructions and specifications.
- 2. Shading coefficient of film must be 0.45 or less.
- 3. Film must have a minimum 5-year warranty.
- 4. Film must be installed free of wrinkles, air bubbles or puckers.
- 5. Film must be neatly trimmed around the edges. A border of no less than 1/32 inch to no more than 1/8 inch must be left between the film edge and the window frame.

11. INSTALLMENT BILLING

- 1. As an alternative to receiving an incentive payment, customers may opt to finance up to a maximum of \$500 through installment billing. For each measure, a customer can use installment billing to finance up to 90% of the total installed cost or repair cost.
- 2. Installment billing allows the customer to spread the cost over 12 months, interest free. The installment billing payments will appear as a separate line item on the customer's monthly electric bill from FPC.
- 3. Installment billing can be used for any combination of the following qualified measures: roof insulation upgrade, duct leakage repair, high efficiency HVAC equipment and window film.
- 4. If the customer installs additional qualified measures, a new installment billing arrangement can be set up only after the initial or current "loan" is paid off.
- 5. The customer must own the facility in which the improvements are being made. The customer shall not have been cut for non-payment, received a credit extension or have any returned checks within the past two years.

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS COMMERCIAL/INDUSTRIAL NEW CONSTRUCTION PROGRAM

1. **PROGRAM OVERVIEW**

The Commercial/Industrial New Construction Program is an "umbrella" program designed to encourage the construction of energy efficient commercial buildings.

The program seeks to meet the following overall goals:

- 1. Educate builders about energy efficient new construction commercial building design to create a supply of energy efficient facilities.
- 2. Obtain energy and demand impacts that are significant, accurate, sustainable and measurable.
- 3. Evaluate cost-effective measures for the marketplace.
- 4. Minimize "lost opportunities" in the new construction market.

2. ELIGIBILITY REQUIREMENTS

- 1. Equipment and measures must be installed in business facilities that are located in the FPC service territory and are served by a metered FPC account.
- 2. FPC must be allowed to inspect the installation of all measures and equipment prior to issuing any incentive payments.
- 3. The commercial facility must be new additions do not qualify for this program.

2.1 CONTRACTOR REQUIREMENTS

- 1. All participating contractors must comply with FPC contractor procedures specific to the program component in which they are participating. Failure to do so may result in termination of participation in any or all FPC 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.

C/I New Construction Program

- 3. The contractor must correct any deficiency found in the installation or product when advised by an FPC representative and notify FPC of compliance within 30 days.
- 4. The contractor shall indemnify and hold FPC harmless against any and all injuries, damages, claims or costs, whatsoever, caused by items furnished or services rendered.
- 5. The contractor must comply with all Federal, State and local codes and regulations and have the appropriate license(s) for the work to be performed.
- 6. The contractor must follow manufacturers' specifications and procedures; failure to do so may result in termination of participation in any or all FPC programs.
- 7. The contractor shall notify FPC of any incident occurring during installation of a conservation measure or any follow-up procedure within 5 working days of incident.
- 8. The contractors must provide FPC with documentation and maintain in force the following insurance policies: (*Exception: Section 6 dealing with HVAC contractors is exempt from this provision*).
 - Workers' 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

3. INCENTIVES

Program Component	Incentive	
Air-Cooled & Water- Cooled Electric Chillers	\$100/kW reduced	
Package Terminal Heat Pumps (PTHPs)	\$100/kW reduced	
Motors	\$2/HP for 1-9.99 HP motors	
	\$1.50/HP for 10-29.99 HP motors	
	\$1/HP for 30+ HP motors	
Heat Recovery Units	\$100	

4. INCENTIVE PROCESSING

- 1. On-site inspections will be performed on at least 10% of the completed projects for each program measure.
- 2. An FPC inspector will complete a Commercial New Construction Program form which will record as a minimum the following information: customer's name, address and account number. In addition, equipment information (manufacturer, model numbers, EER or SEER, HSPF or COP) will be gathered at that time.
- 3. The customer will sign and date the FPC form that relates to each applicable measure installed.
- 4. In addition, project-supporting documents will be reviewed for program compliance.
- 5. After the inspection has been successfully completed, the FPC inspector will return the original form to FPC for payment processing.
- 6. Incentives will not be paid until the review (and inspection when required) is/are completed.
- 7. A copy of the customer's invoice must accompany the incentive application for all measures completed.
- 8. FPC will then input the completed paperwork into the computer system and file a copy of the Commercial New Construction form.
- 9. The customer has the option of receiving the incentive in the form of a credit on their account or in the form of a rebate check.

5. **Reporting Requirements**

6. HVAC EQUIPMENT

6.1 **PARTICIPATION REQUIREMENTS**

Air-Cooled and Water-Cooled Electric Chillers

- 1. Must meet Eligibility Requirements as outlined in Section 2.
- 2. In order to qualify for an incentive, the customer must provide proof of project cost and an itemized inventory of equipment installed. This qualification is typically met by submitting copies of invoices or purchase orders.
- 3. Air Conditioning and Refrigeration Institute (ARI) certified efficiency data at Standard Rating Conditions must be attached to the incentive form.

Package Terminal Heat Pumps (PTHPs)

- 1. Must meet Eligibility Requirements as outlined in Section 2.
- 2. In order to qualify for an incentive, the customer must provide proof of project cost and an itemized inventory of equipment installed. This qualification is typically met by submitting copies of invoices or purchase orders.
- 3. Air Conditioning and Refrigeration Institute (ARI) certified efficiency data at Standard Rating Conditions must be attached to the incentive form.

6.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

Air-Cooled and Water-Cooled Electric Chillers

- 1. 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 ARI rating procedure.
- 2. All equipment for which an incentive is paid shall be new and not refurbished nor previously installed or used.
- 3. All equipment installations shall meet manufacturer's instructions and specifications.
- 4. An HVAC sizing calculation shall be performed by the contractor and shall be attached to the recommendation form when submitted for incentive payment. Cooling and heating design loads shall be determined using a Manual J or ASHRAE approved sizing calculation. Copies of all calculations must be provided to both the customer (left with the new equipment) and to FPC. Design conditions shall be those applicable

to the FPC service area in which the facility is located. The contractor will certify that the unit was sized according to manufacturer specifications.

- 5. The installed HVAC equipment must satisfy the minimum efficiency requirements described in Section 6.4.
- 6. Refrigerant charge and type shall be according to manufacturer's recommendations for unit installed. The contractor will certify that the proper charge was installed and that the unit has been tested and is leak free.
- 7. HVAC equipment must be all electric.

Package Terminal Heat Pumps (PTHPs)

- 1. Packaged terminal heat pump heating and cooling efficiencies (at ARI Standard 310-87 Rating Conditions) must meet or exceed the minimum efficiencies listed in Section 6.4. Packaged terminal heat pumps must be sized to handle the heating load at 31 degrees Fahrenheit outdoor air temperature without the use of backup strip heat. No incentive is offered for packaged terminal air conditioners that use only electric resistance elements for heating.
- 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 Department of Energy (DOE) or ARI rating procedure.
- 3. All equipment for which an incentive is paid shall be new and not refurbished nor previously installed or used.
- 4. All equipment installations shall meet manufacturer's instructions and specifications.
- 5. Contractors shall certify that the airflow meets manufacturer's specifications and recommendations for the system installed.
- 6. Refrigerant charge and type shall be according to manufacturer's recommendations for unit installed. The contractor will certify that the proper charge was installed and that the unit has been tested and is leak free.
- 7. Package Terminal Heat pump must be all electric.

6.3 CONTRACTOR REQUIREMENTS

- 1. Must meet the Contractor Requirements as outlined in Section 2.1.
- 2. Must be a licensed Mechanical Contractor, Class A, B, or C Air Conditioning Contractor.

- 3. Contractors must demonstrate their ability 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 FPC within 30 days if there was an emergency replacement due to equipment failure.

6.4 TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY

Cooling Capacity (Btu/h)	Heating Efficiency (COP)		Cooling Efficiency (EER)	
	Baseline Efficiency	Minimum Efficiency Eligible for Incentive	Baseline Efficiency	Minimum Efficiency Eligible for Incentive
≤7,000	1.0	3.0	9.5	9.6
7,001-8,000	1.0	3.0	9.2	9.3
8,001-9,000	1.0	3.0	9.2	9.5
9,001-10,000	1.0	2.8	9.3	10.0
10,001-11,000	1.0	2.8	8.9	9.0
11,001-12,000	1.0	2.8	8.8	9.0
12,001-13,000	1.0	2.8	8.4	9.0
13,001-14,000	1.0	2.8	8.6	8.7
14,001-15,000	1.0	2.8	8.7	8.8
>15,000	1.0	2.8	8.0	8.1

Packaged Terminal Heat Pumps (PTHPs)

Air-cooled and Water-cooled Electric Chillers

Equipment Type and Size Range	1997 State Energy Code Standard	Baseline Efficiency	Minimum Efficiency Eligible for Incentive		
WATER-COOLED ELECTRIC CHILLERS					
under 150 tons	0.93 kW/ton (3.8 COP)	0.85 kW/ton (4.4 COP)	0.77 kW/ton (4.6 COP)		
150-300 tons	0.84 kW/ton (4.2 COP)	0.72 kW/ton (4.9 COP)	0.65 kW/ton (5.4 COP)		
over 300 tons (R-22)	0.68 kW/ton (5.2 COP)	0.66 kW/ton (5.3 COP)	0.63 kW/ton (5.6 COP)		
over 300 tons (non-CFC)	0.74 kW/ton (4.7 COP)	0.70 kW/ton (5.0 COP)	0.63 kW/ton (5.6 COP)		
AIR-COOLED ELECTRIC CHILLERS					
under 150 tons	1.30 kW/ton (2.7 COP)	1.3 kW/ton (2.7 COP)	1.25 kW/ton (2.8 COP)		
150 tons and larger	1.40 kW/ton (2.5 COP)	1.4 kW/ton (2.5 COP)	1.28 kW/ton (2.7 COP)		

7. MOTORS

7.1 PARTICIPATION REQUIREMENTS

- 1. Must meet the Eligibility Requirements as outlined in Section 2.
- 2. Motors must meet or exceed the minimum efficiency requirements listed under Section 7.3.
- 3. Motor replacement projects which consist exclusively of motors 25 hp and smaller must have a minimum of five (5) energy efficient motors at one site (can be any combination of 1-25 hp motors) to qualify for an incentive.
- 4. Customer must provide proof of project costs and an itemized inventory of installed high efficiency motors.

7.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. Only polyphase motors are eligible for an incentive.
- 2. Rewound motors do not qualify for incentives.

7.3 TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY

The following table presents the minimum efficiency (full-load, nominal efficiency) required for incentive eligibility. The minimum efficiency requirement is the same for all types of motors and all speeds.

HP	Baseline Efficiency	Minimum Efficiency Eligible for Incentive
1	82.5 %	84.0 %
1.5	84.0 %	84.0 %
2	84.0 %	84.0 %
3	86.5 %	87.5 %
5	87.5 %	87.5 %
7.5	88.5 %	89.5 %
10	89.5 %	90.2 %
15	91.0 %	91.1 %
20	91.0 %	92.0 %
25	91.7 %	92.4 %
30	92.4 %	92.5 %
40	93.0 %	93.1 %
50	93.0 %	93.1 %
60	93.6 %	93.7 %
75	94.1 %	94.2 %
100	94.1 %	94.6 %
125	94.5 %	94.6 %
150	95.0 %	95.1 %
200	95.0 %	95.1 %
250	NA	95.4 %

8. HEAT RECOVERY UNITS

8.1 **PARTICIPATION REQUIREMENTS**

- 1. Must meet the eligibility requirements as outlined in Section 2.
- 2. The incentive application form must be completed and submitted by a participating contractor and signed by the customer.
- 3. A copy of the customer's invoice (itemizing equipment costs, non-equipment costs and the incentive amount) must accompany the incentive application.
- 4. Premise must have electric water heating to be eligible for a rebate.

8.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. Heat recovery units must be equipped with a circulating pump and must be Association of Refrigerant Desuperheater Manufacturers (ARDM) certified.
- 2. All heat recovery units must be installed in accordance with manufacturer's specifications.
- 3. 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.
- 4. Heat recovery unit must be installed on an electric water heater.
- 5. All equipment shall be new and not refurbished, previously installed or used.
- 6. The heat recovery unit must be connected to a heat pump or straight air unit sized five tons or less.

8.3 CONTRACTOR REQUIREMENTS

- 1. Must meet the Contractor Requirements as outlined in Section 2.1.
- 2. Must be a licensed Mechanical Contractor, Class A, B or C Air Conditioning contractor.
- 3. The contractor must notify FPC within 30 days if there was an emergency replacement due to equipment failure.

9. DESIGN ASSISTANCE

9.1 PARTICIPATION REQUIREMENTS

- 1. Design assistance may be made available to the building design community (owners/developers, architects, engineers and contractors) through FPC-sponsored workshops, training seminars, advertising or direct marketing approaches.
- 2. Members in the building design community must perform work in FPC's service territory.

10. DESIGN AWARDS

10.1 PARTICIPATION REQUIREMENTS

- 1. FPC may give recognition to newly constructed energy efficient buildings through the distribution of energy awards and recognition advertising.
- 2. Each qualifying building will receive a design award plaque for placement in the building.
- 3. Facility receiving award must be served by FPC.
- 4. The design application must exceed the Florida Energy Efficiency Code for Building Construction by a minimum of 15% where applicable. Otherwise, the application must exceed standard practice by 15%.
- 5. Innovative applications of established technology or of operating schemes will also be considered.

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS INNOVATION INCENTIVE PROGRAM

1. **PROGRAM OVERVIEW**

The objective of the Innovation Incentive Program (IIP) is to encourage customers to make capital investments for the installation of energy efficiency measures which reduce peak kW demand and/or kWh energy on the FPC system. Energy efficiency and peak demand deferrals are the result. Eligible projects include, but are not limited to, new technologies, which emerge from national, State and local sources that have proven to be cost-effective and are not otherwise addressed by FPC programs. Each project will be evaluated for cost-effectiveness based on its demand and energy effects to determine the applicable RIM-based incentive.

Early HVAC Retirement

The early retirement of HVAC equipment will be encouraged under IIP. Lighting, window film and other load reduction measures will be combined with the replacement and downsizing of HVAC equipment. Each project will be evaluated for cost-effectiveness based on the total demand and energy savings of the combined measures to determine the applicable RIM-based incentive.

New Construction Lighting

High efficiency lighting for new construction projects will be evaluated under IIP. The high efficiency system must be at least 10% more efficient than required by the Florida Energy Efficiency Code for Building Construction to be eligible for consideration under IIP. In addition, the building shall exceed the overall energy efficiency requirements of the Code by 10%. Each project will be evaluated for cost-effectiveness based on the total demand and energy savings of the measures to determine the applicable RIM-based incentive.

2. ELIGIBILITY REQUIREMENTS

- 1. The participant must located in the FPC service territory and be a metered business customer.
- 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 have written approval from the owner to do so.

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2.1 **PARTICIPATION REQUIREMENTS**

- 1. An energy audit (Level 1 or Level 2) must be completed prior to the purchase or installation of the equipment or measures (with the exception of new construction projects).
- 2. Completed projects must meet all Federal, State and local codes and regulations in order to be eligible to receive a rebate.
- 3. Project must not include fuel switching.
- 4. Project must shift or reduce a minimum of 10 kW. In cases where the customer has multiple buildings or facilities of the same type at different locations, the kW savings amount may be combined as one project in order to reach the minimum 10 kW level.
- 5. Projects must have a minimum useful life of 15 years.
- 6. Simple payback to the customer must be at least two (2) years.
- 7. FPC must be permitted to inspect the installation and verify the demand and energy savings of all measures and equipment prior to issuing any incentive payments.

2.1.1 EARLY HVAC RETIREMENT

1. Customer must submit cooling and/or heating load calculations, as applicable, for the existing and revised HVAC systems. This will determine how much HVAC downsizing has occurred as a result of the measures. Impacts for the HVAC downsizing will be calculated as the difference between the demand and energy requirements of the properly sized baseline efficiency unit sized to meet the existing load and the properly sized high efficiency unit sized to meet the new load.

2.1.2 New Construction Projects

- 1. The overall building shall exceed the efficiency requirements of the Florida Energy Efficiency Code for Building Construction by 10% before any additional energy efficiency measures are eligible for consideration under this program.
- 2. Customer must submit FLA/COM (Florida Commercial) results ((or FLEET (Florida Life-cycle Energy Efficiency Test) analysis, where applicable)) for verification.
- 3. The building or facility shall be accessible to FPC employees for observation during construction.

Innovation Incentive Program

2.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

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

3. TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY

- 1. High efficiency HVAC equipment must meet or exceed the minimum efficiency standards detailed in the HVAC section of the Better Business Program (Section 6.4).
- 2. Other materials and equipment specifications will be identified on an individual project basis.

4. INCENTIVES

Each project is evaluated for cost-effectiveness based on the total demand and energy savings of the measures to determine the applicable RIM-based incentive. The maximum incentive available is \$150 per kW reduced or shifted to the off-peak. Incentives are limited to 50 percent of the customer's actual total project cost for the energy efficiency measure(s).

5. INCENTIVE PROCESSING

- 1. On-site inspections will be performed on all completed projects.
- 2. In addition, project-supporting documents will be reviewed for program compliance.
- 3. Incentives will be paid after project inspection, review and savings verification has occurred.

6. **REPORTING REQUIREMENTS**

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS COMMERCIAL ENERGY MANAGEMENT (RATE SCHEDULE GSLM-1)

1. **PROGRAM OVERVIEW**

The Commercial Energy Management Program, hereafter referred to as the Commercial Load Management Program, is a direct load control program that reduces FPC's demand during peak or emergency conditions by interrupting customer equipment for specified periods of time. Customers receive a monthly incentive on their electric bill depending on the interruption schedule and the devices participating in the program. The program is offered through the General Service Load Management-1 (GSLM-1) rate schedule.

There are two components to the Commercial Load Management Program. The components are:

Non-Domestic Commercial Energy Management

- A summer only program.
- Incentives for direct load control of electric cooling equipment only.

Domestic Commercial Energy Management

- A summer and winter program.
- Incentives for direct load control of domestically utilized equipment (i.e., water heater(s), central electric heating system(s), central electric cooling system(s) and swimming pool pump(s).

2. ELIGIBILITY REQUIREMENTS

Non-Domestic Commercial Energy Management

- This component of the program will be closed to new participation, such that there will be no new non-domestic Commercial Energy Management installations.
- All existing participants will be allowed to remain on the existing program as long as they do not change their current control schedule such that it requires a service trip.
- New customer accounts will not be eligible to continue a previous participant's service under this program.

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Domestic Commercial Energy Management

- The program will be closed to new participation, such that there will be no new domestic Commercial Energy Management installations.
- All existing domestic commercial Energy Management participants will be allowed to remain on the existing year-round program as long as they do not change their current control schedule.
- Prior to April 1, 2001, all new customer accounts associated with an active Energy Management-equipped building will be eligible to continue a previous participant's service under the existing year-round program, if they maintain the same control schedules as the previous participant and do not require a service trip. If any changes in control schedule are made, then the customer will only be eligible for the schedules and credits contained in the Winter-Only RSL-2 rate schedule.
- Beginning April 1, 2001, new customer accounts associated with an active Energy Management-equipped building will no longer be eligible to continue the previous participant's service under the existing year-round Energy Management rate schedule. However, they will be eligible for the schedules and credits contained in the Winter-Only RSL-2 rate schedule.

3. INCENTIVES

The various options and associated credits as shown in the GSLM-1, RSL-1 and RSL-2 tariffs will remain in effect for those customers grandfathered into the program.

4. INCENTIVE PROCESSING

Customers will receive a monthly credit on their electric bill based on their participating appliances and schedules. (See the GSLM-1, RSL-1 and RSL-2 tariffs for details.)

5. **REPORTING REQUIREMENTS**

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS STANDBY GENERATION PROGRAM (RATE SCHEDULE GSLM-2)

1. **PROGRAM OVERVIEW**

The Standby Generation (SBG) Program is a load control program that reduces FPC's demand based upon the indirect 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 FPC demand when requested. The program is offered through the General Service Load Management-2 (GSLM-2) rate schedule.

2. ELIGIBILITY REQUIREMENTS

- 1. Customer must be eligible for service under the GS-1, GST-1, GSD-1 or GSDT-1 rate schedules.
- 2. The SBG meter must be accessible by FPC for the purpose of reading, inspecting and maintaining the standby generation metering equipment.

2.1 PARTICIPATION REQUIREMENTS

- 1. Customer must have standby generation that will allow facility demand reduction at the request of FPC.
- 2. Customer must be within the range of the Company's Load Management system.

2.2 EQUIPMENT AND INSTALLATION SPECIFICATIONS

- 1. All installations must comply with all provisions of the National Electric Code (NEC) and any code or requirement of other authorities having jurisdiction.
- 2. Where necessary, the engineering for the metering and monitoring module installation will be done by a registered Florida engineer. The physical installation will be done by a licensed Florida electrical contractor selected by FPC. Appropriate permits will be secured for each installation by the contractor.

2.3 CONTRACTOR REQUIREMENTS

- 1. The contractor shall comply with all Load Management Standards as specified by the FPC 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 FPC 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 FPC 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 FPC.

3. TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY

Customer's standby generation capacity must demonstrate a minimum of 50 kW load.

4. INCENTIVES

The maximum allowable incentive for the Standby Generation program will not exceed \$2.10/kW for generator run hours less than 200 for a rolling 12-month period. For generator run hours greater than 200 for a rolling 12-month period, the customer will receive \$2.76/kW. The rolling 12-month period will begin with the month that the SBG meter is installed at the customer's premise.

5. INCENTIVE PROCESSING

The initial readings will be recorded at the time of system testing, and the customer will receive an incentive on their bill each month thereafter according to the incentive calculation in the GSLM-2 tariff.

6. **REPORTING REQUIREMENTS**

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FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS INTERRUPTIBLE SERVICE PROGRAM

1. **PROGRAM OVERVIEW**

The Interruptible Service (IS) Program is a direct load control program that reduces FPC's demand during peak or emergency conditions. A load control switch is installed at the customer's premises allowing the load to be interrupted. FPC may interrupt the participant's service during periods of peak or emergency conditions. In return, the customer receives a credit on his monthly electric bill.

2. ELIGIBILITY REQUIREMENTS

- 1. Customer must be eligible for service under the IS-2 or IST-2 Rate Schedules.
- 2. The facility must be located in the FPC service territory and served by a metered FPC account.
- 3. Service is available at primary, transmission and secondary service voltages.
- 4. The customer must be a FPC non-residential customer.
- 5. The customer must not have load designated for use as a public shelter during periods of emergency or natural disaster by the appropriate governmental agency.

2.1 PARTICIPATION REQUIREMENTS

- 1. Participant must sign an agreement with FPC as to the terms and conditions of this service.
- 2. Average billing demand must be 500 kW or more.
- 3. Participant must allow FPC to install the required load control equipment.
- 4. Participant will be billed in accordance with the Interruptible Service tariffs.
- 5. Participant must agree to remain on this rate for a minimum initial term of five years from the commencement of service. To transfer to a non-interruptible rate schedule, the customer will be required to give FPC written notice at least thirty-six months prior to such transfer.
- 6. The participant must agree to have service interrupted during FPC capacity shortages.

3. INCENTIVES

Participants receive a credit based upon their monthly billing demand in accordance with the Interruptible Service Rate Schedules.

4. INCENTIVE PROCESSING

Participants receive a monthly credit on their electric bill.

5. **REPORTING REQUIREMENTS**

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS CURTAILABLE SERVICE PROGRAM

1. **PROGRAM OVERVIEW**

The Curtailable Service (CS) Program is an indirect load control program that reduces FPC's demand during peak or emergency conditions.

FPC will notify the participant in advance of an upcoming period of requested curtailment. Participants voluntarily curtail their load to a level at or below an agreed upon noncurtailable demand amount. In return, the customer receives a credit on his monthly electric bill.

2. ELIGIBILITY REQUIREMENTS

- 1. Customer must be eligible for service under the CS-2 or CST-2 Rate Schedules.
- 2. The facility must be located in the FPC service territory and served by a metered FPC account.
- 3. Service is available at primary, transmission and secondary service voltages.
- 4. The customer must be a FPC non-residential customer.
- 5. The customer must not have load designated for use as a public shelter during periods of emergency or natural disaster by the appropriate governmental agency.

2.1 PARTICIPATION REQUIREMENTS

- 1. Participant must sign an agreement with FPC as to the terms and conditions of this service.
- 2. Average billing demand must be 500 kW or more.
- 3. Participant must allow FPC to install the required load control equipment.
- 4. Participant must agree to curtail the greater amount of a minimum of 25 kW or 25% of their average monthly billing demand.
- 5. Participant will be billed in accordance with the Curtailable Service tariffs.

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- 6. Participant must agree to remain on this rate for a minimum initial term of two years from the commencement of service. To transfer to a firm rate schedule, the customer will be required to give FPC written notice at least thirty-six months prior to such transfer.
- 7. The participant may voluntarily curtail to or below the agreed upon non-curtailable load during the periods of curtailment.
- 8. If a participant elects not to curtail and establishes a demand higher than the noncurtailable demand, then the non-curtailable demand amount is reset at the higher demand level.

3. INCENTIVES

Participants receive a credit based upon their monthly billing demand in accordance with the Curtailable Service Rate Schedules.

4. INCENTIVE PROCESSING

Participants receive a monthly credit on their electric bill.

5. **REPORTING REQUIREMENTS**

FLORIDA POWER CORPORATION PROGRAM PARTICIPATION STANDARDS TECHNOLOGY DEVELOPMENT PROGRAM

1. **PROGRAM OVERVIEW**

The purpose of the Technology Development Program is to enable FPC to investigate technologies and pursue research, development and demonstration projects that may lead to the development of new cost-effective demand and energy efficiency programs. The program is designed to allow FPC 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 economic 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 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 included as part of the pre-approved project expenditures under this program. In order to accurately account for expenses, each investigation will have a "job order" created according to established corporate procedures which will be the repository for all investigation expenses. A record of program expenses will be maintained in accordance with Rule 25-17.015, Florida Administrative Code.

2. ELIGIBILITY REQUIREMENTS

Customers that are eligible to participate in field demonstration projects will be determined during the project research and design phase, and 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 FPC and its contractors access to the facility for maintaining and monitoring the evaluation equipment. FPC will be solely responsible for determining the technologies to be evaluated under this program.

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3. INCENTIVES

As part of this program, FPC will compensate participants in field demonstration projects for their willingness to work with FPC on the technology evaluation.

4. **REPORTING REQUIREMENTS**

If any single project's 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, FPC will apply to the FPSC staff for approval to proceed with the particular project which would cause FPC to exceed the limit.