





JAMES A. MCGEE SENIOR COUNSEL

June 24, 1998

Ms. Blanca S. Bayó, Director Division of Records and Reporting Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Re: Docket No. 980264-EG

Dear Ms. Bayó:

As directed by Order No. PSC-98-0746-FOF-EG, issued May 29, 1998 in the subject docket, enclosed for filing are an original and fifteen copies of Florida Power Corporation's revised Program Participation Standards for its Better Business Program. The revised standards are provided in both regular and legislative format. The order provides that these standards are to be administratively approved if they conform the description of the program contained in Florida Power's petition.

ACK ______Please acknowledge your receipt of the above filing on the enclosed copy of this letter and return to the undersigned. Also enclosed is a 3.5 inch diskette Containing the above-referenced documents in Word 6.0 format. Thank you for APP _____your assistance in this matter.

CAF Very truly yours, CMU CTR EAG James A. McGee LEG Enclosure RECEIVED & EIEED LIN OPC RCH C-BU AU OF RECORDS SEC **GENERAL OFFICE** WAS OTH 3201 Thirty-fourth Street South . Post Office Box 14042 . St. Petersburg, Florida 33733 x: (813) 866 4931 A Florida Progress Company SC 85 THE BARFFORTING



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FLORIDA POWER CORPORATION

DOCKET NO. 980264-EG

BETTER BUSINESS PROGRAM

REVISED PROGRAM PARTICIPATION STANDARDS

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PROGRAM PARTICIPATION STANDARDS BETTER BUSINESS PROGRAM

1. PROGRAM OVERVIEW

The Better Business Program is the umbrella efficiency program targeted to existing business customers. The Better Business Program builds on the Business Energy Check by using the audit as a prerequisite for participating in the program. The Better Business Program pays incentives for select energy efficient heating, ventilation, air conditioning, motors, and water heating equipment, as well as for roof insulation upgrades, duct leakage tests and repairs, and window film retrofits. The program also offers two financing options: no-interest installment billing for very small energy efficiency projects, and reduced-interest loans through participating financial institutions.

2. ELIGIBILITY REQUIREMENTS

- 1. The participant must be an FPC business customer.
- Equipment and measures must be installed in facilities that are located in the FPC service territory and served by a metered FPC account.
- FPC must be permitted to inspect the installation of all measures and equipment prior to issuing any incentive payments.

In addition to these general policies, specific eligibility guidelines, equipment specifications, and participation procedures that apply to individual measures are defined in subsequent sections.

2.1 Participation Requirements

A Business Energy Check audit must be completed prior to the purchase or installation of all measures. *Exception:* Participation in the Motors component does not require an audit. Also, customers who install high efficiency HVAC equipment under emergency replacement conditions prior to receiving an audit will still be eligible to receive incentives. However, an audit should be completed prior to the release of the incentive.

2.2 Equipment and Installation Specifications

- All equipment for which an incentive is paid shall be new and not refurbished nor have been previously installed or used.
- 2. All equipment installations shall meet manufacturer's instructions and specifications.

Better Business Program

2.3 Contractor Requirements

- All participating contractors must comply with FPC contractor procedures specific to the program component in which they are participating.
- 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.
- The contractor must correct any ceficiency found in the installation or product when advised by an FPC representative.
- 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 for the work to be performed.
- The contractor must follow manufacturers' specifications and procedures, failure to do so may result in termination of participation in any or all FPC programs.
- The contractor must provide FPC with documentation and maintain in force the following insurance policies:
 - 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

Program Component	Incentive	
Heat Pumps 65,000	\$100 for minimum 10.2 EER and 7.5 HSPF	
Btuh and under	\$300 for minimum 11.0 EER and 8.0 HSPF	
Other HVAC Equipment	\$100/kW reduced	
Motors	\$2/HP for 1-7.5 HP motors	
	\$1.50/HP for 10-25 HP motors	
	\$1/HP for 30+ HP motors	
Heat Recovery Units	\$100	
Roof Insulation	\$75 Resulting R-19 to R-30	
Upgrade	\$100 Resulting R-30 or better	
Duct	50% of test cost up to \$25 for first unit	
Test	50% of test cost up to \$15 for each additional unit	
	25% of repair cost up to \$50/unit	
Duct Repair	for non-ducted or non-electric heat	
	50% of repair cost up to \$100/unit for electric ducted heat	
Window Film	\$0.27/sq. ft. up to \$125	

4. INCENTIVE PROCESSING

- 1. On-site inspections will be performed on at least 10% of the completed projects for each program measure.
- 2. In addition, project supporting documents will be reviewed for program compliance.
- 3. Incentives will not be paid until the review (and inspection, when required) are completed.

5. REPORTING REQUIREMENTS

The reporting requirements for this program will follow Rule 25-17 0021 (5) of the Florida Administrative Code.

6. HVAC EQUIPMENT

6.1 Overview

This program component promotes the installation of HVAC equipment. The program provides customers with information and technical assistance to address energy efficiency and environmental issues relating to HVAC systems, as well as incentives for the purchase of high efficiency water-cooled and air-cooled chillers, unitary heat pumps and central air conditioners, packaged terminal heat pumps (PTHP's), and packaged rooftop units.

6.2 Eligibility Requirements

6.2.1 Participation Requirements

Small Heat Pumps (≤ 65,000 Btuh)

- A copy of the customer invoice (itemizing equipment costs, non-equipment costs and the incentive, where applicable), along with the heating/cooling sizing documentation, must accompany the incentive form.
- 2. 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 Air-Conditioning Contractors of America (ACCA) Manual J, or FPC-approved method, or ASHRAE Cooling and Heating Load Calculation Manual, Second Edition. 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 FPC service area in which the facility is located

Other Commercial HVAC Equipment

- 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.
- Air Conditioning and Refrigeration Institute (ARI) certified efficiency data at Standard Rating Conditions must be attached to the incentive form for large unitary air conditioners and heat pumps, packaged terminal heat pumps, and electric chillers
- Incentives will not be paid on projects that have simple paybacks of less than 2 years. Simple paybacks will be calculated based on average costs and incremental savings between the high efficiency equipment and the program baseline.
- 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.

6.2.2 Equipment and Installation Specifications

Small Heat Pumps (≤ 65,000 Btuh)

- 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. The installed air handler/outdoor condensing unit combination must satisfy both the cooling and the heating minimum efficiency requirements described in Section 6.3. If EER ratings are not available, SEER will be used to determine cooling-mode eligibility. Minimum heating efficiency for water source units will be based on COP.
- 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
- Cooling unit sizing may not exceed the designated calculated conditioned area load by more than 15% or 6,000 Btuh, whichever is larger.
- Contractors shall certify that the air flow meets manufacturer's specifications and recommendations for the system installed.
- Contractors shall certify that a "hard start" kit has been installed to manage starting current on all scroll compressor units over 36,000 Btuh.
- 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.
- 8. 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.
- 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.
- 10. All duct connections to equipment being installed will be sealed using mastic and mastic-plus-embedded fabric systems that are approved by FPC. If local codes prohibit the use of mastic, pressure-sensitive tape meeting UL 181A, Part 1 may be used on fibrous glass ductboard. Pressure-sensitive tape applied to non-metal flexible duct shall meet UL 181B, Part 1 specifications Heat activated tapes applied to fibrous glass ductboard shall meet UL 181A, Part 2.

11. Air handling units, mechanical closets and enclosed support platforms shall meet the specifications and provisions as detailed in the Florida Energy Efficiency Code for Building Construction (updated 1995), Sections 610.1ABC.3.5, 610.1ABC.3.7 and 610.1.ABC.3.8, respectively.

Other Commercial HVAC Equipment

- 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.
- Equipment efficiency ratings shall be obtained from a nationally recognized certification program directory or a manufacturer's rating which is certified to be in compliance with an approved DOE or ARI rating procedure. All cooling-mode efficiency ratings eligibility will be based on EER.
- 3. 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 6.3. 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 which use only electric resistance elements for heating.

6.2.3 Contractor Requirements

Small Heat Pumps (≤ 65,000 Btuh)

In addition to the general contractor requirements presented in Section 2.3 - Contractor Requirements, the following specific requirements apply.

- 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
- Contractors must demonstrate that they have ready access to high efficiency heat pumps that qualify for the program.

6.3 Technical Specifications on Equipment Eligibility

Small Heat Pumps (≤ 65,000 Btuh)

	COOLING	MINIMUM HEATING EFFICIENCY		INCENTIVE
EER	SEER	HSPF	COP	per Heat Pump
10.2	12.0	7.5	3.1	\$100
11.0	13.0	8.0	3.3	\$300

Unitary AC and Heat Pumps over 65,000 Bauh

Equipment Type and Size Range	1994 State Energy Code Standard	Baseline Efficiency	Minimum Efficiency Eligible for Incentive
AIR-COOL	ED AIR CONDITIONE	RS AND HEA'	T PUMPS
65,000-135,000 Btuh	8.9 EER	8.9 EER	10.0 EER
135,001-760,000 Btuh	8.5 EER	8.5 EER	9.5 EER
over 760,000 Btuh	8.2 EER	8.2 EER	9.5 EER
WATER-COO	LED AIR CONDITION	NERS AND HE	AT PUMPS
65,000-135,000 Btuh	10.5 EER*	10.5 EER*	11.5 EER
over 135,000 Btuh	9.6 EER	9.6 EER	10.5 EER

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

Packaged Terminal Heat Pumps (PTHP's)

	Heating	Efficiency (COP)	Cooling Efficiency (EER)	
Cooling Capacity (Btuh)	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	92	9.3
8,001-9,000	1.0	3.0	9.2	95
9,001-10,000	1.0	2.8	9.3	10.0
10,001-11,000	1.0	2.8	8.9	5.0
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

Air-cooled and Water-cooled Electric Chillers

Equipment Type and Size Range	1994 State Energy Code Standard	Baseline Efficiency	Minimum Efficiency Eligible for Incentive
	WATER-COOLED E	LECTRIC 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 ELE	CTRIC 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 Overview

This program component promotes the installation of high efficiency polyphase motors through a simple incentive structure. The incentive is calculated from the motor size and its corresponding \$/hp incentive level.

7.2 Eligibility Requirements

7.2.1 Participation Requirements

- Motors must meet or exceed the minimum efficiency requirements listed under Section 7.3

 Technical Specifications on Equipment Eligibility.
- 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 gualify for an incentive.
- Incentives will not be paid on high efficiency motors used in applications that have simple paybacks of less than 2 years. Simple paybacks will be calculated based on average incremental costs and incremental savings between the high efficiency equipment and the program baseline (NEMA Std 12-6C)
- Customer must provide proof of project cost and an itemized inventory of installed equipment.

7.2.2 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.

НР	Baseline Efficiency	Minimum Efficiency Eligible for Incentive
1	82.5%	84.0 %
1.5	84.0 %	84.0 %
	84.0 %	84.0 %
2 3 5	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 Overview

This program component promotes the installation of heat recovery units for water heating by providing an incentive for each unit installed.

8.2 Eligibility Requirements

8.2.1 Participation Requirements

- 1. The incentive application form must be completed and submitted by a participating contractor and signed by the customer.
- A copy of the customer invoice (itemizing equipment costs, non-equipment costs, and the incentive amount) must accompany the incentive application.
- 3. Premise must have electric water heating.

8.2.2 Equipment and Installation Specifications

- Heat recovery water heaters must be equipped with a circulating pump and must be Association of Refrigerant Desuperheater Manufacturers (ARDM) certified.
- The heat recovery unit must be connected to a heat pump or straight air unit sized 5 tons or less.
- 3. The plumbing of the heat recovery unit shall be as follows.
 - Tee off the cold water line for supply to the heat recovery unit
 - Return hot water from the heat recovery unit to the bottom of the water heater tank through a tee behind the drain valve.
 - The plumbing connection should be no longer than 35 linear feet and must be insulated.

8.2.3 Contractor Requirements

See Section 2.3 - Contractor Requirements.

9. ROOF INSULATION UPGRADE

9.1 Overview

This portion of the program encourages customers to add insulation to the roof area by paying for a portion of the installation cost.

9.2 Eligibility Requirements

9.2.1 Participation Requirements

- Building must be at least two years old at the time of the audit. New construction is not eligible to participate in this program.
- 2. The weighted average R-value of the existing insulation over the total roof square footage (above conditioned space) must be less than R-12.
- 3. The insulation must be installed in the unconditioned space over the conditioned space.
- 4. 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.
- 5. Total square footage of the area to be insulated must be greater than 500 square feet.
- 6. 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 "-value
- 7. Radiant barriers will not be allowed as a substitute for insulation in this program.
- 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.

9.2.2 Equipment and Installation Specifications

- 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 (example: existing insulation is R-10, recommendation will be to add R-11 or R-22, not R-9 or R-20).
- 2. The insulation must be installed uniformly, resulting in a minimum R-19 value throughout the entire area.

- 3. The insulation must not cover existing soffits or any other type of ventilation.
- 4. The insulation must have a minimum clearance around all recessed lighting and gasfired appliances as required by State, County and local codes
- All attic access panels that are located in conditioned space must be insulated with an attached batt of minimum R-19.
- 6. Ceilings steeper than 5 over 12 pitch shall not be insulated with loose fill insulation. Blown-in or loose fill 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.
- 7. 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 as prescribed by the Florida Energy Efficiency Code for Building Construction.
 - 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.

9.2.3 Contractor Requirements

See Section 2.3 - Contractor Requirements.

10. DUCT TEST & REPAIR

10.1 Overview

This portion of the program is designed to encourage eligible customers to reduce the air leakage rate through central duct systems. Through the use of an inspection tool, such as a blower door, duct leaks can be identified and repaired

10.2 Eligibility Requirements

10.2.1 Participation Requirements

- 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.
- 2. The duct must be easily accessible for repair.
- 3. No multi-space units, where one unit is on top of another unit, may be tested or repaired due to health and safety concerns. Multi-space units must be single story or townhouse-type structures with no units above or below them
- All facilities must have electric ducted air conditioning to be eligible for this program. If combustion appliances exist, then the facility must pass a safety test prior to any duct sealing.
- 5. If the facility has metal ducts, the customer must agree to re-insulate all the metal duct sections prior to any repairs being made. The cost to re-insulate the metal duct system is the customer's responsibility. The metal ducts must be insulated to at least an R-4.2 value.

10.2.2 Equipment and Installation Specifications

- Only mastic and mastic-plus-embedded fabric systems that are approved by FPC may be used for sealing duct systems. If local codes prohibit the use of mastic, pressuresensitive tape meeting UL 181A, Part 1 may be used on fibrous glass ductboard Pressure-sensitive tape applied to non-metal flexible duct shall meet UL 181B, Part 1 specifications. Heat activated tapes applied to fibrous glass ductboard shall meet UL 181A, Part 2.
- Mastic must meet FPC-approved standards for the type of duct for which the mastic is manufactured.
- Blower door or Duct Blaster procedures must be followed as specified in training or manufacturer's instructions, unless otherwise directed by FPC.

10.2.3 Contractor Requirements

- Must meet the contractor requirements presented in Section 2.3 Contractor Requirements.
- 2. All contractors must complete an FPC approved duct repair course At a minimum, the training session includes the following:
 - Building Science
 - Duct test applications
 - Duct test field applications
 - Codes and standards
- 3. Before any duct repairs can be made on facilities with 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."

11. WINDOW FILM

11.1 Overview

FPC will provide customers with an incentive to install window film.

11.2 Eligibility Requirements

11.2.1 Participation Requirements

- 1. Existing windows must have shading coefficients of 0.84 or greater.
- 2. Existing windows can not be more than 50% shaded by external forces.
- 3. Jalousie, double or triple pane, frosted or plastic windows, and skylights are not eligible.
- Facilities with multiple guest rooms, such as hotels, motels, hospitals, and assisted-care living facilities may receive incentives up to \$50 per room.

11.2.2 Equipment and Installation Specifications

- 1. Shading coefficient of film must be 0.45 or less.
- 2. Film must have a minimum 5 year warranty.
- 3. Film must be installed free of wrinkles, air bubbles, or puckers.
- 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

12. INSTALLMENT BILLING

12.1 Overview

As an alternative to receiving an incentive payment, customers may opt to finance up to \$500 of the project cost through installment billing. Installment billing allows the customer to spread the cost over 12-months at no interest. The installment billing payments appear as a separate line item on the customer's monthly electricity bill from FPC. Installment billing can be used for any one or combination of the following qualified measures: ceiling insulation upgrade, duct repair, high efficiency electric heat pump, heat recovery unit, and window film. For each measure, a customer can finance up to 90% of the total installed cost or repair cost. A customer can finance up to a total of \$500 (maximum). If the customer installs additional qualified measures, a new installment billing arrangement can be set up only after the initial "loan" is paid off.

12.2 Eligibility Requirements

- 1. The customer must own the facility in which improvements are being made.
- The customer may not have had any returned checks, requested a credit extension, or been cut for non-payment within the past two years.

13. FINANCING ASSISTANCE

13.1 Overview

Financing Assistance is another alternative to the direct incentive payment. Eligible Better Business program participants can opt to apply appropriate program incentives toward reduced interest rates on short term loans. Participants will negotiate for the best interest rate available at a financial institution of their choice. FPC will provide participants with documentation detailing incentive amounts available for interest rate buy-down. Participants can then utilize the incentive to reduce the principle or buy-down interest rates. Terms and conditions are established between participants and financial institutions.