

ORIGINAL



December 9, 2003

Ms. Blanca S. Bayó, Director  
Division of the Commission Clerk  
and Administrative Services  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

RECEIVED-FPSC  
03 DEC 10 AM 10:56  
COMMISSION  
CLERK

Re: Docket No. 030999-EI

Dear Ms. Bayó:

Staff has brought to our attention several formatting irregularities in Exhibits A and B to the Petition filed in the subject docket on October 23, 2003. Again there were irregularities in our corrected filing submitted to you on December 3, 2003. Accordingly, please find enclosed for filing on behalf of Progress Energy Florida, Inc., an original and fifteen copies of corrected Exhibits A and B. The substance of these exhibits has not been changed.

Please acknowledge your receipt of the above filing on the enclosed copy of this letter and return to the undersigned. A 3½ inch diskette containing the above-referenced documents in Word format is also enclosed. Thank you for your assistance in this matter.

Sincerely,

James A. McGee

DISTRIBUTION CENTER  
03 DEC 10 AM 9:58

JAM/scc

Enclosures

cc: Mr. Michael Haff

Progress Energy Service Company, LLC  
P.O. Box 14042  
St. Petersburg, FL 33733

AUS \_\_\_\_\_  
CAF \_\_\_\_\_  
CMP \_\_\_\_\_  
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DOCUMENT NUMBER-DATE

12741 DEC 10 03

FPSC-COMMISSION CLERK

ORIGINAL

EXHIBIT A  
(corrected)

**MODIFICATIONS TO  
RESIDENTIAL NEW CONSTRUCTION AND  
RESIDENTIAL ENERGY MANAGEMENT DSM PROGRAMS  
AND RELATED TARIFF SHEETS**

DOCUMENT NUMBER-DATE

12741 DEC 10 8

FPSC-COMMISSION CLERK

**PROGRESS ENERGY FLORIDA, INC.**  
**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:

Section A. Residential Site Built

Section B. Manufactured Homes

Section 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.

## **A. RESIDENTIAL NEW CONSTRUCTION**

### **A.1. OVERVIEW**

The Residential New Construction single family site-built segment promotes energy efficient home construction. This will provide customers with more efficient mechanical systems to lower energy consumption combined with improved environmental awareness. 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 Residential New Construction program.
3. A Residential New Construction builder or builder/owner meeting Progress Energy Florida, Inc. (PEF) 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 Residential New Construction Program standards by a PEF employee or representative.
5. The home must be located in PEF's service area and must be metered by PEF.
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 PEF procedures may result in termination of participation in any or all PEF 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 PEF-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 PEF 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 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.
9. Attic Radiant Barrier Systems shall have an emissivity rating  $< 0.06$ . as demonstrated by independent laboratory testing according to ASTM C-1371-97.
10. High performance windows must be labeled by the National Fenestration Rating Council (NFRC) as achieving a Solar Heat Gain Coefficient (SHGC)  $< .50$  and a U-value  $< .75$ . Decorative glass is exempt provided its total area does not exceed 15% of the total glass area of the home.

## A.2.2 CONTRACTOR<sup>1</sup> 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 PEF contractor procedures specific to the level for which they are participating.

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<sup>1</sup> Contractor and manufacturer are synonymous.

4. PEF reserves the right to request background checks of contractors participating in the Residential New Construction Program.
5. It is the responsibility of the PEF employee or representative to encourage each builder to move up to either Level Two or Level Three.
6. The contractor must correct any deficiency found in the installation or product when advised by a PEF employee or representative, and notify the PEF employee or representative of compliance within 30 days.
7. The contractor shall indemnify and hold PEF harmless against any and all injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.
8. Must meet the Residential New Construction technical specifications of either Level One, Level Two, or Level Three.
9. If the builder has a model center, PEF 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.
10. 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 Residential New Construction Program, then no educational test is required. If an educational duct test is required, a PEF employee or representative must be present.
11. The builder must correct any problems discovered during the duct test before that builder may become certified in the Residential New Construction Program.
12. 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 PEF 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.
13. To be eligible for level two incentives, a completed incentive form must be received by the Company within six months of permanent electric service activation for the account.

### **A.3. TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY**

The Residential New Construction Program defines three levels of eligibility and various options within each level that 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 PEF standards specifications (see Section A.2.1, item 7).

### A.3.2 LEVEL TWO

Meet Level One requirements, *and* install a high efficiency electric heat pump with a minimum cooling efficiency of 13 SEER (Seasonal Energy Efficiency Rating), with a minimum heating efficiency of 7.5 HSPF (Heating Season Performance Factor), or install a higher efficiency heat pump with a minimum cooling efficiency of 14 SEER with a minimum heating efficiency of 8.0 HSPF. Ground source heat pumps must achieve a 3.5 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 or R-19 attic insulation with radiant barrier system.
3. Install a heat recovery unit.
4. Install a dedicated heat pump water heater.
5. Install -high performance windows with a Solar Heat Gain Coefficient (SHGC) of  $\leq .50$  and a U-Factor of  $\leq .75$ .

### A.3.3 LEVEL THREE

Homes built under this level shall install the following measures:

- Homes must meet Level One and Level Two requirements
- Duct leakage of total air handler rated flow shall be  $\leq 5\%$  to unconditioned spaces at 25 Pascals.

Homes shall also meet performance guidelines as defined by the US Environmental Protection Agency's (EPA) Energy Star Program.

\* Homes may qualify at Level Three with 12 SEER and 7 HSPF heat pump or greater efficiencies, but will not be eligible for equipment incentives.

### **A.3.4 COOPERATIVE ADVERTISING**

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

1. PEF offers co-op incentive funds at the rate of \$50 per home/unit built to the Residential New Construction Program level three/Energy Star requirements.
2. Co-op funds are available after construction is completed, electric meters are set, and units pass inspection by PEF.
3. A variety of media may be purchased with co-op funds: TV, radio, daily newspaper, direct mail, point-of-purchase materials, home; apartment and manufactured-housing magazines if mutually agreed upon in advance.
4. PEF will pay 50% of the cost of advertising, not to exceed the total co-op funds earned by the partner.
5. A minimum of 25% of the ad content must promote energy efficiency and the PEF partnership.
6. Partners may choose to incorporate content provided by PEF into their advertising or may choose, instead, to use an ad created by PEF and modified by the partner to include partner's advertising messages.
7. PEF must approve a proof of the final advertising materials prior to production. Two business days are needed to proof and approve the advertising materials.
8. Co-op funds must be used within 6 months of completed construction.
9. Partner is reimbursed for co-op advertising after advertising has run or after printed materials have been produced.
10. For co-op reimbursement, a media invoice or printer's invoice, accompanied by five (5) samples, must be submitted to your PEF Residential New Construction Representative.
11. PEF reserves the right to withhold payment for advertising which it deems to be untruthful or offensive.



#### 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 and promotional literature	Home must have a centrally ducted heat pump system and meet PEF 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 or R19 attic insulation with radiant barrier system		13	7.5	
		\$100	Ground source heat pump	11			3.8
		\$300	Level One and a high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation or R 19 attic insulation with radiant barrier system		14	8	
		\$300	Ground source heat pump	11.7			4.10
		\$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				
		\$350	Level I and high performance windows		<b>U – Factor</b>	<b>Solar Heat Gain Coefficient</b>	
			<.75	<.50			
Level Three	Incentive from Levels One & Two, plus PEF will match on a 50/50 basis up to \$50 per qualified home/account for Co-Op advertising	Home must meet all Level Three qualifying measures and qualify for EPA's Energy Star Program (Refer to A..3.3)					

**A.5. INCENTIVE PROCESSING**

1. The PEF employee, builder or HVAC contractor will complete an Residential New Construction 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), and high performance windows information (U-Factor and SHGC)
2. The Residential New Construction program form must be accompanied by documentation that supports the claimed efficiency ratings. For heat pumps refer to the *Air Conditioning and Refrigeration Institute and Department of Energy* test standards 210/240 (ARI Guide). For high performance windows refer to the National Fenestration Rating Council (NFRC label).
3. The builder or HVAC contractor will sign and date the form, and retain a copy.
4. If the home is assigned for inspection, the original Residential New Construction Program form is given to the inspector. After the inspection has been successfully completed, the inspector returns the original form to PEF for payment processing.
5. If the home is not assigned for inspection, or after it has passed inspection, builder's invoices will be processed for payment.
6. PEF 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 segment promotes energy efficient manufactured home construction. This will provide customers with more efficient mechanical systems to lower energy consumption combined with improved environmental awareness. PEF 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 Residential Manufactured New Home program.
3. A Residential Manufactured New Home manufacturer meeting PEF standards must build the home. Manufacturer must comply with all HUD or DCA requirements. Developers or retailers must follow all procedures to ensure proper installation of high efficiency equipment.
4. The home must be accessible for verification of Residential Manufactured New Home Program standards by a PEF employee or representative.
5. The home must be located in PEF's service area and must be metered by PEF.
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 PEF procedures may result in termination of participation in any or all PEF programs.
2. Equipment specification shall be according to Air Conditioning and Refrigeration Institute and Department of Energy test standards or by a PEF-recognized engineering standard using sound engineering estimates.
3. Equipment information such as model numbers, manufacturers, and Btuh capacity shall be made accessible to the PEF 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.
7. Attic Radiant Barrier Systems shall have an emissivity rating of  $< 0.06$  as demonstrated by independent laboratory testing according to ASTM C-1371-97.
8. High performance windows must be labeled by the National Fenestration Rating Council (NFRC) as achieving a Solar Heat Gain Coefficient (SHGC)  $< .50$  and a U-value  $< .75$ . Decorative glass is exempt provided its total area does not exceed 15% of the total glass area of the home.

### **B.2.2 MANUFACTURER<sup>2</sup> 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 PEF manufacturer procedures specific to the level for which they are participating.
4. PEF reserves the right to request background checks of contractors participating in the Residential New Construction Program
5. It is the responsibility of the PEF employee or representative to encourage each manufacturer, or interested party to move up to Level Two or Level Three.
6. The manufacturer, HVAC contractor or developer must correct any deficiency found in the installation or product when advised by a PEF employee or representative and notify the PEF employee or representative of compliance within 30 days.

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<sup>2</sup> Contractor and manufacturer are synonymous.

7. The manufacturer or developer shall indemnify and hold PEF harmless against any and all injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.
8. Must meet the Residential Manufactured New Home technical specifications of either Level One, Level Two, or Level Three.
9. If the manufacturer or developer has a model center, PEF 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.
10. 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 Residential Manufactured New Home Program requirements, then no test is required. If an educational duct test is required, a PEF employee or representative must be present.
11. The manufacturer or developer must correct any problems discovered during the duct test before that manufacturer or developer may become certified in the Residential Manufactured New Home Program.
12. An incentive of \$15 will be paid to the retailer, developer 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 PEF 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.
13. To be eligible for level two incentives, a completed incentive form must be received by the Company within six months of permanent electric service activation for the account.

### **B.3. TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY**

The Residential Manufactured New Home 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 PEF 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 13.0 SEER (Seasonal Energy Efficiency Rating), with a minimum heating efficiency of 7.5 HSPF (Heating Season Performance Factor), or install a higher efficiency heat pump with a minimum cooling efficiency of 14 SEER, with a minimum heating efficiency of 8.0 HSPF. Ground source heat pumps must achieve a 3.5 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 or R-19 attic insulation with radiant barrier system.
3. Install a heat recovery unit.
4. Install a dedicated heat pump water heater.
5. High performance windows with a Solar Heat Gain Coefficient of  $< .50$  and a U-Factor of  $< .75$ .

### **B.3.3 LEVEL THREE**

Manufactured homes built under this level shall install the following measures:

- Homes must meet Level One and Level Two requirements
- Duct leakage of total air handler rated flow shall be  $\leq 5\%$  to unconditioned spaces at 25 Pascals.

Homes shall also meet performance guidelines as defined by the US Environmental Protection Agency's (EPA) Energy Star Program.

\*Homes may qualify at Level Three with 12 SEER and 7 HSPF heat pump or greater efficiencies, but will not be eligible for equipment incentives

### **B.3.4 COOPERATIVE ADVERTISING**

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

1. PEF offers co-op incentive funds at the rate of \$50 per home/unit built to the Residential New Construction Program level three/Energy Star requirements.
2. Co-op funds are available after construction is completed, electric meters are set, and units pass inspection by PEF.
3. A variety of media may be purchased with co-op funds: TV, radio, daily newspaper, direct mail, point-of-purchase materials, home; apartment and manufactured-housing magazines if mutually agreed upon in advance.
4. PEF will pay 50% of the cost of advertising, not to exceed the total co-op funds earned by the partner.
5. A minimum of 25% of the ad content must promote energy efficiency and the PEF partnership.
6. Partners may choose to incorporate content provided by PEF into their advertising or may choose, instead, to use an ad created by PEF and modified by the partner to include partner's advertising messages.
7. PEF must approve a proof of the final advertising materials prior to production. Two business days are needed to proof and approve the advertising materials.
8. Co-op funds must be used within 6 months of completed construction.
9. Partner is reimbursed for co-op advertising after advertising has run or after printed materials have been produced.
10. For co-op reimbursement, a media invoice or printer's invoice, accompanied by five (5) samples, must be submitted to your PEF Residential New Construction Representative.
11. PEF reserves the right to withhold payment for advertising which it deems to be untruthful or offensive.

#### B.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 and promotional literature		Residency/unit must have centrally ducted heat pump system and meet PEF 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 or R-19 attic insulation with radiant barrier system		13	7.5		
		\$100	Ground source heat pump	11			3.8	
		\$300	Level One and high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation, or R 19 attic insulation with radiant barrier system		14	8		
		\$300	Ground source heat pump	11.7			4.10	
		\$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					
		\$350	Level One and High Performance Windows	<b>U-Factor</b>	<b>Solar Heat Gain Coefficient</b>			
				<.75	<.50			
Level Three	Incentive from Levels One & Two, plus PEF will match on a 50/50 basis up to \$50 per home/account for Co-Op advertising		Home(s) must meet Level Three qualifying measures and qualify for EPA's Energy Star Program (Refer to B.3.3)					



**B.5. INCENTIVE PROCESSING**

1. The PEF employee or representative, manufacturer, HVAC contractor, or park owner will complete a Residential Manufactured New Home Program form which will record as a minimum the following information: manufacturer's name, subdivision, address or lot and block of certified home, Level number, equipment information (manufacturer, model numbers, EER or SEER, HSPF or COP), and high performance windows information (U-Factor and SHGC).
2. The Residential New Construction Program form must be accompanied by documentation that supports the claimed efficiency ratings. For heat pumps refer to the Air Conditioning and Refrigeration Institute and Department of Energy test standards 210/240 (ARI Guide). For high performance windows refer to the National Fenestration Rating Council (NFRC label).
3. The manufacturer, developer, retailer or park owner will sign and date the form, and retain a copy.
4. If the home is assigned for inspection, the original Residential Manufactured New Home Program form is given to the inspector. After the inspection has been successfully completed, the inspector returns the original form to PEF for payment processing.
5. If the home is not assigned for inspection, or after it has passed inspection, builder's invoices will be processed for payment.
6. PEF 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 segment promotes energy efficient new building construction in order to ensure that energy efficient rental apartments are available for customers.

It is PEF'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 Multi-Family New Construction program.
3. An Multi-Family New Construction builder, owner or agency meeting PEF 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 Multi-Family New Construction Program standards by a PEF employee or representative.
5. The residency/unit must be located in PEF's service area and must be metered by PEF.
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 PEF procedures may result in termination of participation in any or all PEF programs.
2. Equipment specification shall be according to Air Conditioning and Refrigeration Institute and Department of Energy test standards 210/240/94 or by a PEF-recognized engineering standard using sound engineering estimates.
3. Minimum wall insulation is R-4 for masonry and R-11 for frame.
4. Equipment information such as model numbers, manufacturers, and Btuh capacity shall be made accessible to the PEF employee or representative.
5. 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.
6. 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.
7. 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.
8. Attic Radiant Barrier Systems shall have an emissivity rating of  $< 0.06$  as demonstrated by independent laboratory testing according to ASTM C-1371-97.
9. High performance windows must be labeled by the National Fenestration Rating Council (NFRC) as achieving a Solar Heat Gain Coefficient (SHGC)  $< .50$  and a U-value  $< .75$ . Decorative glass is exempt provided its total area does not exceed 15% of the total glass area of the home.

### **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 PEF contractor procedures specific to the level for which they are participating.
4. PEF reserves the right to request background checks of contractors participating in the Residential New Construction Program
5. The contractor must correct any deficiency found in the installation or product when advised by a PEF employee or representative and notify the PEF employee or representative of compliance within 30 days.
6. The contractor shall indemnify and hold PEF harmless against any and all injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.
7. Must meet the Multi-Family New Construction technical specifications of either Level One, Level Two, or Level Three.
8. If the builder has a model apartment, PEF 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.
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 Multi-Family New Construction Program, then no educational test is required. If an educational duct test is required, a PEF 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 Multi-Family New Construction 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 PEF 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.
12. To be eligible for level two incentives, a completed incentive form must be received by the Company within six months of permanent electric service activation for the account.

### **C.3. TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY**

The Multi-Family New Construction 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 PEF 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 13.0 SEER (Seasonal Energy Efficiency Rating), with a minimum heating efficiency of 7.5HSPF (Heating Season Performance Factor), or install a higher efficiency heat pump with a minimum cooling efficiency of 14 SEER, with a minimum heating efficiency of 8.0HSPF. Ground source heat pumps must achieve a 3.5 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 or R-19 attic insulation with radiant barrier system. (Top floor only, all units).
3. Install a heat recovery unit.
4. Install a dedicated heat pump water heater.
5. High performance windows with a Solar Heat Gain Coefficient of  $< .50$  and a U-Factor of  $< .75$ .

### C.3.3 LEVEL THREE

Residency/units built under this level shall install the following measures:

- Residency/units must meet Level One and Level Two requirements..
- Duct leakage of total air handler rated flow shall be  $< 5\%$  to unconditioned spaces at 25 Pascals

Units shall also meet performance guidelines as defined by the US Environmental Protection Agency's (EPA) Energy Star Program.

\* Homes may qualify at Level Three with 12 SEER and 7 HSPF heat pump or greater efficiencies, but will not be eligible for equipment incentives.

### **C.3.4 COOPERATIVE ADVERTISING**

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

1. PEF offers co-op incentive funds at the rate of \$50 per home/unit built to the Residential New Construction Program level three/Energy Star requirements.
2. Co-op funds are available after construction is completed, electric meters are set, and units pass inspection by PEF.
3. A variety of media may be purchased with co-op funds: TV, radio, daily newspaper, direct mail, point-of-purchase materials, home; apartment and manufactured-housing magazines if mutually agreed upon in advance.
4. PEF will pay 50% of the cost of advertising, not to exceed the total co-op funds earned by the partner.
5. A minimum of 25% of the ad content must promote energy efficiency and the PEF partnership.
6. Partners may choose to incorporate content provided by PEF into their advertising or may choose, instead, to use an ad created by PEF and modified by the partner to include partner's advertising messages.
7. PEF must approve a proof of the final advertising materials prior to production. Two business days are needed to proof and approve the advertising materials.
8. Co-op funds must be used within 6 months of completed construction.
9. Partner is reimbursed for co-op advertising after advertising has run or after printed materials have been produced.
10. For co-op reimbursement, a media invoice or printer's invoice, accompanied by five (5) samples, must be submitted to your PEF Residential New Construction Representative.
11. PEF reserves the right to withhold payment for advertising which it deems to be untruthful or offensive.

## C.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 and promotional literature		Residency/unit must have centrally ducted system and meet PEF duct sealing specifications				
		\$100	Level One and high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation or R-19 attic insulation with radiant barrier system		13	7.5	
Level Two	Incentive from Level One Plus	\$100	Ground source heat pump	11			3.8
		\$300	Level One and high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation or R-19 attic insulation with radiant barrier system		14	8	
		\$300	Ground source heat pump	11.7			4.10
		\$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				
		\$350	Level One and high performance windows		<b>U-Factor</b>	<b>Solar Heat Gain Coefficient</b>	
				<.75	<.50		
Level Three	Incentive from Levels One & Two, plus PEF will match on a 50/50 basis up to \$50 in co-op advertising per unit		Residency/unit must install Level Three qualifying measures and qualify for EPA's Energy Star Program (Refer to section C.3.3)				

## **C.5. INCENTIVE PROCESSING**

1. The PEF employee, builder or HVAC contractor will complete an Multi-Family New Construction 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), and high performance windows information (U-Factor and SHGC).
2. The Residential New Construction Program form must be accompanied by documentation that supports the claimed efficiency ratings. For heat pumps refer to the Air Conditioning and Refrigeration Institute and Department of Energy test standards 210/240 (ARI Guide). For high performance windows refer to the National Fenestration Rating Council (NFRC label).
3. 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).
4. The builder/owner or HVAC contractor will sign and date the form, and retain a copy.
5. When the complex is assigned for inspection, the original Multi-Family New Construction Program form is given to the inspector. After the inspection has been successfully completed, the inspector returns the original form to PEF for payment processing.
6. PEF 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.



# PROGRESS ENERGY FLORIDA, INC.

## PROGRAM PARTICIPATION STANDARDS RESIDENTIAL ENERGY MANAGEMENT (RATE SCHEDULES RSL-1 AND RSL-2)

### 1. PROGRAM OVERVIEW

The Residential Energy Management Program is a direct load control program that reduces Progress Energy Florida, Inc. (PEF)'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 or RSL-2 may remain on RSL-1 or RSL-2 unless they choose to exit the program or make any equipment schedule changes. Any RSL-1 or RSL-2 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 or RSL-2) will only be eligible for the RSL-2 rate schedule with heat pump option.

Service under the RSL-1 and RSL-2 rate schedules is subject to PEF'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 PEF'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. 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 PEF employee or representative.
4. A PEF-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.

## **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 PEF 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 PEF Purchasing Standards for contractors doing business with PEF.
2. PEF reserves the right to request background checks of contractors participating in the Residential Energy Management Program.
3. 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.
4. The contractor must comply with all Federal, State and local licensing, codes and regulations.
5. 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.
6. Contractors shall indemnify and hold PEF harmless against any and all injuries, damages; claims or cost, whatsoever caused by items furnished or services performed.
7. 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.

#### **4. INCENTIVE PROCESSING**

Customers on the RSL-2 rate schedule will be eligible to receive a monthly credit on their electric bill for the billing months of November through March only. Customers on the RSL-1 rate schedule will be eligible to receive a monthly credit during every month of the year.

#### **5. REPORTING REQUIREMENTS**

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

**RATE SCHEDULE RSL-2  
RESIDENTIAL LOAD MANAGEMENT – WINTER ONLY**

**Availability:**

Available only within the range of the Company's load management system.

**Applicable:**

To Customers eligible for residential service under Rate Schedule RS-1 or RSS-1 having a minimum average monthly usage of 600 kWh for the months of November through March (based on the most recent billings or, where not available, a projection for those months), and utilizing both an electric water heater and an electric central heating system:

**Character of Service:**

Continuous service, alternating current, 60 cycle, single-phase, at the Company's standard distribution secondary voltage available. Three-phase service, if available, will be supplied only under the conditions set forth in the Company's booklet "Requirements for Electric Service and Meter Installations.

**Limitation of Service:**

Service to the electrical equipment specified above may be interrupted at the option of the Company by means of load management devices installed on the Customer's premises.

Standby or resale service not permitted hereunder. Service under this rate schedule is subject to the Company's currently effective and filed "General Rules and Regulations for Electric Service."

**Rate Per Month:**

<b>Customer Charge:</b>	\$ 8.03
<b>Energy and Demand Charges:</b>	
Non-Fuel Energy Charges:	
First 1,000 kWh	3.315¢ per kWh
All additional kWh	4.315¢ per kWh
plus an Energy Conservation Cost Recovery Factor:	See Sheet No. 6.105
plus a Capacity Cost Recovery Factor:	See Sheet No. 6.105
plus an Environmental Cost Recovery Clause Factor:	See Sheet No. 6.105

**Additional Charges:**

Fuel Cost Recovery Factor:	See Sheet No. 6.105
Gross Receipts Tax Factor:	See Sheet No. 6.106
Right-of-Way Utilization Fee:*	See Sheet No. 6.106
Municipal Tax:*	See Sheet No. 6.106
Sales Tax:*	See Sheet No. 6.106

\* If applicable

**Load Management Credit Amount:<sup>1</sup>**

<u>Interruptible Equipment</u>	<u>Monthly Credit<sup>2</sup></u>
Water Heater and Central Heating System <sup>3</sup>	\$11.50

- Notes: (1) Load management credits shall not exceed 40% of the Non-Fuel Charge associated with kWh consumption in excess of 600 kWh/month.
- (2) For billing months of November through March only.
- (3) For heat pump systems the Company may, at its option, interrupt the secondary resistance heating elements for the entire designated Peak Period, in which case the primary heat pump system will not be subject to interruption.

**Equipment Interruption Schedule:**

Central Heating	Equipment interruptions will not exceed an accumulated total of 16.5 minutes during any 30 minute interval within the Company's designated Peak Periods, except as provided in Note (3) above.
Water Heater	Equipment may be interrupted continuously, not to exceed 300 minutes, during the Company's designated Peak Periods.

(Continued on Page No. 2)

**RATE SCHEDULE RSL-2  
RESIDENTIAL LOAD MANAGEMENT – WINTER ONLY**  
(Continued from Page No. 1)

**Peak Periods:**

The designated Peak Periods, expressed in terms of prevailing clock time and subject to Special Provision 5 below, are as follows:

For the calendar months of November through March – All Days: 6:00 a.m. to 11:00 a.m., and  
6:00 p.m. to 10:00 p.m.

**Terms and Conditions:**

All terms and conditions of Rate Schedule RS-1, Residential Service, including Fuel Charges and other Billing Adjustments, Minimum Monthly Bill, Terms of Payment, Term of Service, and Budget Billing Plan, shall apply to service under this rate schedule.

**Special Provisions:**

1. The Company shall be allowed reasonable access to the Customer's premises to install, maintain, inspect, test or remove the load management devices for the electrical equipment specified above.
2. Prior to the installation of load management devices, the Company may inspect the Customer's electrical equipment specified above to ensure good repair and working condition, but the Company shall not be responsible for the repair or maintenance of such equipment.
3. The Company shall not be required to install load management devices on electrical equipment which would not be economically justified for reasons, such as excessive installation costs, insufficient load, oversized heating equipment, or abnormal utilization of the electrical equipment, including but not limited to, seasonal or other limited occupancy residences or common use facilities.
4. Multiple units of any electrical equipment specified above must all be installed with load management devices to qualify for the load management credit under this rate schedule.
5. The limitations on equipment interruptions contained in this rate schedules shall not apply during critical capacity conditions on the Company's system; nor shall limitations apply at times the Company requires additional generating resources to maintain firm power sales commitments or supply emergency interchange service to another utility for its firm load obligations only. The Company may also exercise equipment interruptions at any time for the purpose of testing or evaluating the performance of its load management system.
6. If the Company determines that the load management devices installed on a Customer's premises have been tampered with, the Company may discontinue service under this rate schedule and bill for all prior load management credits received by the Customer, unless the tampering date can be established to the Company's satisfaction, plus applicable investigative charges.
7. Billing under this rate schedule will commence with the first complete billing period following installation of the load management devices. A Customer may transfer to another rate schedule by notifying the Company at least forty-five (45) days in advance, however the Customer will not be eligible service under this rate schedule for 12 months from the date of the transfer.
8. If the Company determines that the effect of equipment interruptions has been offset by the Customer's use of supplementary or alternative electrical equipment, or if access cannot be obtained by the Company to inspect, maintain, test or remove load management devices, service under this rate schedule may be discontinued and the Customer billed for all prior load management credits received over a period not in excess of six (6) months.

**EXHIBIT B**  
(corrected)

**MODIFICATIONS TO  
RESIDENTIAL NEW CONSTRUCTION AND  
RESIDENTIAL ENERGY MANAGEMENT DSM PROGRAMS  
AND RELATED TARIFF SHEETS  
(legislative format)**

~~FLORIDA POWER CORPORATION~~  
PROGRESS ENERGY FLORIDA, INC.

**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:

Section A. — Residential Site Built

Section B. — Manufactured Homes

Section 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.

## 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. The Residential New Construction single family site-built segment promotes energy efficient home construction. This will provide customers with more efficient mechanical systems to lower energy consumption combined with improved environmental awareness.—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 Residential New Construction program.
3. A RNC Residential New Construction builder or builder/owner meeting FPC Progress Energy Florida, Inc. (PEF) 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 Residential New Construction Program standards by a FPC PEF employee or representative.
5. The home must be located in FPC's-PEF's service area and must be metered by FPC PEF.
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 PEF



procedures may result in termination of participation in any or all FPC PEF 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 FPCPEF-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 FPCPEF 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 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.
9. Attic Radiant Barrier Systems shall have an emissivity rating < 0.06. as demonstrated by independent laboratory testing according to ASTM C-1371-97.
10. High performance windows must be labeled by the National Fenestration Rating Council (NFRC) as achieving a Solar Heat Gain Coefficient (SHGC) < .50 and a U-value < .75. Decorative glass is exempt provided its total area does not exceed 15% of the total glass area of the home.

## A.2.2 CONTRACTOR<sup>1</sup> REQUIREMENTS

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

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<sup>1</sup> Contractor and manufacturer are synonymous.

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 FPCPEF contractor procedures specific to the level for which they are participating.
4. PEF reserves the right to request background checks of contractors participating in the Residential New Construction Program.
- ~~4.5.~~ It is the responsibility of the FPCPEF employee or representative to encourage each builder to move up to either Level Two or Level Three.
- ~~5.6.~~ The contractor must correct any deficiency found in the installation or product when advised by a FPCPEF employee or representative, and notify the FPCPEF employee or representative of compliance within 30 days.
- ~~6.7.~~ The contractor shall indemnify and hold FPCPEF harmless against any and all injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.
- ~~7.8.~~ Must meet the RNCResidential New Construction technical specifications of either Level One, Level Two, or Level Three.
- ~~8.9.~~ If the builder has a model center, FPCPEF 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.
- ~~9.10.~~ 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 RNCResidential New Construction Program, then no educational test is required. If an educational duct test is required, a FPCPEF employee or representative must be present.
- ~~10.11.~~ The builder must correct any problems discovered during the duct test before that builder may become certified in the RNCResidential New Construction Program.
- ~~11.12.~~ 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 FPCPEF 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.
13. To be eligible for level two incentives, a completed incentive form must be received by the Company within six months of permanent electric service activation for the account.

### A.3. TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY

The RNC Residential New Construction Program defines three levels of eligibility and various options within each level ~~which~~ that 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 ~~FPCPEF~~ standards specifications (see Section A.2.1, item 7).

#### A.3.2 LEVEL TWO

Meet Level One requirements, *and* install a ~~high efficient efficiency~~ electric heat pump with a minimum cooling efficiency of ~~10.2 EER<sup>2</sup> (Energy Efficiency Rating), or 11.5~~ 13 SEER (Seasonal Energy Efficiency Rating), with a minimum heating efficiency of 7.0 ~~7.5~~ HSPF (Heating Season Performance Factor), or install a higher efficiency heat pump with a minimum cooling efficiency of 14 SEER with a minimum heating efficiency of 8.0 HSPF. — Ground source heat pumps must achieve a ~~2.9~~ 3.5 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 or R-19 attic insulation with radiant barrier system. ~~to the top floor units.~~
3. Install a heat recovery unit.
4. Install a dedicated heat pump water heater.
5. Install -high performance windows with a Solar Heat Gain Coefficient (SHGC) of < .50 and a U-Factor of < .75.

#### A.3.3 LEVEL THREE

Homes built under this level shall install the following measures:

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<sup>2</sup> ~~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.~~

- Construct duct systems that meet PEF standards specifications (see Section A.2.1, item 7)
- Homes must meet Level One and Level Two requirements  
A heat pump with minimum cooling efficiency of 12 SEER, and minimum heating efficiency of 7 HSPF.
- Duct leakage of total air handler rated flow shall be < 5% to unconditioned spaces at 25 Pascals.

Homes shall also meet performance guidelines ~~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.~~

\* Homes may qualify at Level Three with 12 SEER and 7 HSPF heat pump or greater efficiencies, but will not be eligible for equipment incentives.

### 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.~~
1. PEF offers co-op incentive funds at the rate of \$50 per home/unit built to the Residential New Construction Program level three/Energy Star requirements.
  2. Co-op funds are available after construction is completed, electric meters are set, and units pass inspection by PEF.
  3. A variety of media may be purchased with co-op funds: TV, radio, daily newspaper, direct mail, point-of-purchase materials, home; apartment and manufactured-housing magazines if mutually agreed upon in advance.
  4. PEF will pay 50% of the cost of advertising, not to exceed the total co-op funds earned by the partner.
  5. A minimum of 25% of the ad content must promote energy efficiency and the PEF partnership.
  6. Partners may choose to incorporate content provided by PEF into their advertising or may choose, instead, to use an ad created by PEF and modified by the partner to include partner's advertising messages.
  7. PEF must approve a proof of the final advertising materials prior to production. Two business days are needed to proof and approve the advertising materials.

8. Co-op funds must be used within 6 months of completed construction.
9. Partner is reimbursed for co-op advertising after advertising has run or after printed materials have been produced.
10. For co-op reimbursement, a media invoice or printer's invoice, accompanied by five (5) samples, must be submitted to your PEF Residential New Construction Representative.
11. PEF reserves the right to withhold payment for advertising which it deems to be untruthful or offensive.

### 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 and promotional literature	Home must have a centrally ducted heat pump system and meet FPCPEF 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 or R19 attic insulation with radiant barrier system	10.2	11.5 13	7.07.5	2.9
		\$100	Ground source heat pump	11			3.8
		\$300	Level One and a high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation or R 19 attic insulation with radiant barrier system	11.0	12.5 14	7.5 8	3.0
		\$300	Ground source heat pump	11.7			4.10
		\$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				
		\$350	Level I and high performance windows	<u>U - Factor</u>	<u>Solar Heat Gain Coefficient</u>		
			<.75		<.50		
Level Three	Incentive from Levels One & Two, Plus-plus PEF will match on a 50/50 basis up to \$50 per qualified home/account for Co-Op advertising	Home must meet all Level One & Two requirements, Three qualifying measures and Plus home must qualify for EPA's Energy Star Program (Refer to A.3.3)					

## A.5. INCENTIVE PROCESSING

1. The ~~FPCPEF~~ employee, builder or representative or HVAC contractor will complete an ~~RNC~~ Residential New Construction 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), and high performance windows information (U-Factor and SHGC).
2. The Residential New Construction program form must be accompanied by documentation that supports the claimed efficiency ratings. For heat pumps refer to the Air Conditioning and Refrigeration Institute and Department of Energy test standards 210/240 (ARI Guide). For high performance windows refer to the National Fenestration Rating Council (NFRC label).
- ~~2.3.~~ The builder or HVAC contractor will sign and date the form, and retain a copy.
- ~~3.4.~~ If the home is assigned for inspection, the original ~~RNC~~ Residential New Construction Program form is given to the inspector. After the inspection has been successfully completed, the inspector returns the original form to ~~FPCPEF~~ for payment processing.
- ~~4.5.~~ If the home is not assigned for inspection, or after it has passed inspection, builder's invoices will be processed for payment.
- ~~5.6.~~ ~~FPCPEF~~ 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-segment) promotes energy efficient manufactured home construction. This will provide customers with more efficient mechanical systems to lower energy consumption combined with improved environmental awareness. FPCPEF 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~~ Residential Manufactured New Home program.
3. A ~~RMNH~~ Residential Manufactured New Home manufacturer meeting FPCPEF standards must build the home. Manufacturer must comply with all HUD or DCA requirements. Developers or retailers must follow all procedures to ensure proper installation of high efficiency equipment.
4. The home must be accessible for verification of ~~RMNH~~ Residential Manufactured New Home Program standards by a FPCPEF employee or representative.
5. The home must be located in FPCPEF's service area and must be metered by FPCPEF.
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 FPCPEF procedures may result in termination of participation in any or all FPCPEF programs.
2. Equipment specification shall be according to Air Conditioning and Refrigeration Institute and Department of Energy test standards or by a FPCPEF-recognized engineering standard using sound engineering estimates.



3. Equipment information such as model numbers, manufacturers, and Btuh capacity shall be made accessible to the FPCPEF 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.
7. Attic Radiant Barrier Systems shall have an emissivity rating of < 0.06 as demonstrated by independent laboratory testing according to ASTM C-1371-97.
8. High performance windows must be labeled by the National Fenestration Rating Council (NFRC) as achieving a Solar Heat Gain Coefficient (SHGC) < .50 and a U-value < .75. Decorative glass is exempt provided its total area does not exceed 15% of the total glass area of the home.

## **B.2.2 MANUFACTURER<sup>3</sup> 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 FPCPEF manufacturer procedures specific to the level for which they are participating.
4. PEF reserves the right to request background checks of contractors participating in the Residential New Construction Program
- 4.5. It is the responsibility of the FPCPEF employee or representative to encourage each manufacturer, or interested party to move up to Level Two or Level Three.

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<sup>3</sup> Contractor and manufacturer are synonymous.

- 5.6. The manufacturer, HVAC contractor or developer must correct any deficiency found in the installation or product when advised by a FPCPEF employee or representative and notify the FPCPEF employee or representative of compliance within 30 days.
- 6.7. The manufacturer or developer shall indemnify and hold FPCPEF harmless against any and all injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.
- 7.8. Must meet the RMNH Residential Manufactured New Home technical specifications of either Level One, Level Two, or Level Three.
- 8.9. If the manufacturer or developer has a model center, FPCPEF 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.
- 9.10. 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 Residential Manufactured New Home Program requirements, then no test is required. If an educational duct test is required, a FPCPEF employee or representative must be present.
- 10.11. The manufacturer or developer must correct any problems discovered during the duct test before that manufacturer or developer may become certified in the RMNH Residential Manufactured New Home Program.
- 11.12. An incentive of \$15 will be paid to the retailer, developer 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 FPCPEF 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.
13. To be eligible for level two incentives, a completed incentive form must be received by the Company within six months of permanent electric service activation for the account.

### **B.3. TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY**

The RMNH Residential Manufactured New Home 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 ~~FPCPEF~~ 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 EER<sup>1</sup>~~ (Energy Efficiency Rating), or ~~of 13.0~~ ~~11.5~~ SEER (Seasonal Energy Efficiency Rating), with a minimum heating efficiency of ~~7.5~~ HSPF (Heating Season Performance Factor), or install a higher efficiency heat pump with a minimum cooling efficiency of ~~11.0 EER<sup>4</sup>~~ or ~~12.5~~ ~~14~~ SEER, with a minimum heating efficiency of ~~7.5~~ ~~8.0~~ HSPF. Ground source heat pumps must achieve a ~~2.9~~ ~~3.5~~ 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 or R-19 attic insulation with radiant barrier system.
3. Install a heat recovery unit.
4. Install a dedicated heat pump water heater.
5. High performance windows with a Solar Heat Gain Coefficient of < .50 and a U-Factor of < .75.

**B.3.3 LEVEL THREE**

Manufactured homes built under this level shall install the following measures:

- Homes must meet Level One and Level Two requirements
- Duct leakage of total air handler rated flow shall be < 5% to unconditioned spaces at 25 Pascals.

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

\*Homes may qualify at Level Three with 12 SEER and 7 HSPF heat pump or greater efficiencies, but will not be eligible for equipment incentives

### B.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.
  1. PEF offers co-op incentive funds at the rate of \$50 per home/unit built to the Residential New Construction Program level three/Energy Star requirements.
  2. Co-op funds are available after construction is completed, electric meters are set, and units pass inspection by PEF.
  3. A variety of media may be purchased with co-op funds: TV, radio, daily newspaper, direct mail, point-of-purchase materials, home; apartment and manufactured-housing magazines if mutually agreed upon in advance.
  4. PEF will pay 50% of the cost of advertising, not to exceed the total co-op funds earned by the partner.
  5. A minimum of 25% of the ad content must promote energy efficiency and the PEF partnership.
  6. Partners may choose to incorporate content provided by PEF into their advertising or may choose, instead, to use an ad created by PEF and modified by the partner to include partner's advertising messages.
  7. PEF must approve a proof of the final advertising materials prior to production. Two business days are needed to proof and approve the advertising materials.
  8. Co-op funds must be used within 6 months of completed construction.
  9. Partner is reimbursed for co-op advertising after advertising has run or after printed materials have been produced.
  10. For co-op reimbursement, a media invoice or printer's invoice, accompanied by five (5) samples, must be submitted to your PEF Residential New Construction Representative.
  11. PEF reserves the right to withhold payment for advertising which it deems to be untruthful or offensive.

### B.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 and promotional literature	Residency/unit must have centrally ducted heat pump system and meet FPCPEF 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 or R-19 attic insulation with radiant barrier system	10.2	11.5 13	7.0 7.5	2.9
		\$100	Ground source heat pump	11			3.8
		\$300	Level One and high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation, or R 19 attic insulation with radiant barrier system	11.0	12.5 14	7.5 8	3.0
		\$300	Ground source heat pump	11.7			4.10
		\$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				
		\$350	Level One and High Performance Windows	<b>U-Factor</b>	<b>Solar Heat Gain Coefficient</b>		
			<.75	<.50			
Level Three	Incentive from Levels One & Two, Plus FPCPEF will match on a 50/50 basis up to \$50 in co-op advertising per unit per home/account for Co-Op advertising	Residency/unit Home(s) must meet Level Three qualifying measures and all Level One & Two requirements, Plus unit must qualify for EPA's Energy Star Program (Refer to B.3.3)					

## B.5. INCENTIVE PROCESSING

1. The FPCPEF employee or representative, manufacturer, HVAC contractor, or park owner will complete an RMNH Residential Manufactured New Home Program form which will record as a minimum the following information: manufacturer's name, subdivision, address or lot and block of certified home, Level number, equipment information (manufacturer, model numbers, EER or SEER, HSPF or COP), and high performance windows information (U-Factor and SHGC).
2. The Residential New Construction Program form must be accompanied by documentation that supports the claimed efficiency ratings. For heat pumps refer to the Air Conditioning and Refrigeration Institute and Department of Energy test standards 210/240 (ARI Guide). For high performance windows refer to the National Fenestration Rating Council (NFRC label).
- 2.3. The manufacturer, developer, retailer or park owner will sign and date the form, and retain a copy.
- 3.4. If the home is assigned for inspection, the original RMNH Residential Manufactured New Home Program form is given to the inspector. After the inspection has been successfully completed, the inspector returns the original form to FPCPEF for payment processing.
- 4.5. If the home is not assigned for inspection, or after it has passed inspection, builder's invoices will be processed for payment.
- 5.6. FPCPEF 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~~ segment promotes energy efficient new building construction in order to ensure that energy efficient rental apartments are available for customers.

It is ~~FPCPEF~~'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~~Multi-Family New Construction program.
3. An ~~MFNC~~Multi-Family New Construction builder, owner or agency meeting ~~FPCPEF~~ 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~~Multi-Family New Construction Program standards by a ~~FPCPEF~~ employee or representative.
5. The residency/unit must be located in ~~FPCPEF~~'s service area and must be metered by ~~FPCPEF~~.
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 FPCPEF procedures may result in termination of participation in any or all FPCPEF 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.~~
- ~~3.2.~~ Equipment specification shall be according to Air Conditioning and Refrigeration Institute and Department of Energy test standards 210/240/94 or by a FPCPEF-recognized engineering standard using sound engineering estimates.
- ~~4.3.~~ Minimum wall insulation is R-4 for masonry and R-11 for frame.
- ~~5.4.~~ Equipment information such as model numbers, manufacturers, and Btuh capacity shall be made accessible to the FPCPEF employee or representative.
- ~~6.5.~~ 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.
- ~~7.6.~~ 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.
- ~~8.7.~~ 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.
8. Attic Radiant Barrier Systems shall have an emissivity rating of < 0.06 as demonstrated by independent laboratory testing according to ASTM C-1371-97.
9. High performance windows must be labeled by the National Fenestration Rating Council (NFRC) as achieving a Solar Heat Gain Coefficient (SHGC) < .50 and a U-value < .75. Decorative glass is exempt provided its total area does not exceed 15% of the total glass area of the home.

## 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 FPCPEF contractor procedures specific to the level for which they are participating.
4. PEF reserves the right to request background checks of contractors participating in the Residential New Construction Program
- 4.5. The contractor must correct any deficiency found in the installation or product when advised by a FPCPEF employee or representative and notify the FPCPEF employee or representative of compliance within 30 days.
- 5.6. The contractor shall indemnify and hold FPCPEF harmless against any and all injuries, damages, claims or costs whatsoever caused by items furnished or services rendered.
- 6.7. Must meet the MFNC Multi-Family New Construction technical specifications of either Level One, Level Two, or Level Three.
- 7.8. If the builder has a model apartment, FPCPEF 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.
- 8.9. 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 MFNC Multi-Family New Construction Program, then no educational test is required. If an educational duct test is required, a FPCPEF employee or representative must be present.
- 9.10. The builder must correct any problems discovered during the duct test before that builder may become certified in the MFNC Multi-Family New Construction Program.
- 10.11. 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 FPCPEF 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.
12. To be eligible for level two incentives, a completed incentive form must be received by the Company within six months of permanent electric service activation for the account.

### C.3. TECHNICAL SPECIFICATIONS ON EQUIPMENT ELIGIBILITY

The ~~MFNC~~Multi-Family New Construction 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 ~~FPCPEF~~ 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 EER<sup>4</sup>~~ (Energy Efficiency Rating), or ~~13.0~~ 11.5 SEER (Seasonal Energy Efficiency Rating), with a minimum heating efficiency of ~~7.0~~ 7.5 HSPF (Heating Season Performance Factor), or install a higher efficiency heat pump with a minimum cooling efficiency of ~~11.0 EER<sup>5</sup>~~ or 14 12.5 SEER, with a minimum heating efficiency of ~~7.5~~ 8.0 HSPF. Ground source heat pumps must achieve a ~~2.9~~ 3.5 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 or R-19 attic insulation with radiant barrier system. (Top floor only, all units).
3. Install a heat recovery unit.
4. Install a dedicated heat pump water heater.
5. High performance windows with a Solar Heat Gain Coefficient of < .50 and a U-Factor of < .75.

#### C.3.3 LEVEL THREE

Residency/units built under this level shall install the following measures:

- Residency/units must meet Level One and Level Two requirements..

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<sup>4</sup> 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.

- Duct leakage of total air handler rated flow shall be < 5% to unconditioned spaces at 25 Pascals

Units shall also be at least 30 percent more efficient than the Council of American Building Officials (CABO) 1993 Model Energy Code (MEC) meet performance guidelines as defined by the US Environmental Protection Agency's (EPA) Energy Star Program.

\* Homes may qualify at Level Three with 12 SEER and 7 HSPF heat pump or greater efficiencies, but will not be eligible for equipment incentives.

### **C.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.~~
1. PEF offers co-op incentive funds at the rate of \$50 per home/unit built to the Residential New Construction Program level three/Energy Star requirements.
2. Co-op funds are available after construction is completed, electric meters are set, and units pass inspection by PEF.
3. A variety of media may be purchased with co-op funds: TV, radio, daily newspaper, direct mail, point-of-purchase materials, home; apartment and manufactured-housing magazines if mutually agreed upon in advance.
4. PEF will pay 50% of the cost of advertising, not to exceed the total co-op funds earned by the partner.
5. A minimum of 25% of the ad content must promote energy efficiency and the PEF partnership.
6. Partners may choose to incorporate content provided by PEF into their advertising or may choose, instead, to use an ad created by PEF and modified by the partner to include partner's advertising messages.
7. PEF must approve a proof of the final advertising materials prior to production. Two business days are needed to proof and approve the advertising materials.
8. Co-op funds must be used within 6 months of completed construction.
9. Partner is reimbursed for co-op advertising after advertising has run or after printed materials have been produced.
10. For co-op reimbursement, a media invoice or printer's invoice, accompanied by five (5) samples, must be submitted to your PEF Residential New Construction Representative.

11. PEF reserves the right to withhold payment for advertising which it deems to be untruthful or offensive.

**C.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 and promotional literature		Residency/unit must have centrally ducted system and meet FPCPEF duct sealing specifications				
		\$100	Level One and high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation or R-19 attic insulation with radiant barrier system	10.2	11.5 13	7.0 7.5	2.9
Level Two	Incentive from Level One Plus	\$100	Ground source heat pump	11			3.8
		\$300	Level One and high efficiency electric heat pump, plus Manual D duct design or R-30 attic insulation or R-19 attic insulation with radiant barrier system	11.0	12.5 14	7.5 8	3.0
		\$300	Ground source heat pump	11.7			4.10
		\$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				
		\$350	Level One and high performance windows		<b>U-Factor</b>	<b>Solar Heat Gain Coefficient</b>	
				<.75	<.50		
Level Three	Incentive from Levels One & Two, plus FPCPEF will match on a 50/50 basis up to \$50 in co-op advertising per unit		Residency/unit must meet all Level One & Two requirements, install Level Three qualifying measures and Plus unit must qualify for EPA's Energy Star Program (Refer to section C.3.3)				

## C.5. INCENTIVE PROCESSING

1. The ~~FPCPEF~~ ~~employee or representative~~, builder or HVAC contractor will complete an ~~MFNC~~Multi-Family New Construction 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), and high performance windows information (U-Factor and SHGC).
2. The Residential New Construction Program form must be accompanied by documentation that supports the claimed efficiency ratings. For heat pumps refer to the Air Conditioning and Refrigeration Institute and Department of Energy test standards 210/240 (ARI Guide). For high performance windows refer to the National Fenestration Rating Council (NFRC label).
- ~~2.3.~~ 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).
- ~~3.4.~~ The builder/owner or HVAC contractor will sign and date the form, and retain a copy.
- ~~4.5.~~ When the complex is assigned for inspection, the original ~~MFNC~~Multi-Family New Construction Program form is given to the inspector. After the inspection has been successfully completed, the inspector returns the original form to ~~FPCPEF~~ for payment processing.
- ~~5.6.~~ ~~FPCPEF~~ 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.

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<sup>i</sup> 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.

**PROGRESS ENERGY FLORIDA, INC.**  
**FLORIDA POWER CORPORATION**  
**PROGRAM PARTICIPATION STANDARDS**  
**RESIDENTIAL ENERGY MANAGEMENT**  
**(RATE SCHEDULES RSL-1 AND RSL-2)**

**1. PROGRAM OVERVIEW**

The Residential Energy Management Program is a direct load control program that reduces FPC's Progress Energy Florida, Inc. (PEF)'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 or RSL-2 may remain on RSL-1 or RSL-2 unless they choose to exit the program or make any equipment schedule changes. Any RSL-1 or RSL-2 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 or RSL-2) will only be eligible for the RSL-2 rate schedule with heat pump option.

Service under the RSL-1 and RSL-2 rate schedules is subject to FPC's PEF'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 PEF'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 p~~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~~PEF employee or representative.

4. A FPCPEF-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.

## 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 FPCPEF 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 FPCPEF Purchasing Standards for contractors doing business with FPCPEF.
2. PEF reserves the right to request background checks of contractors participating in the Residential Energy Management Program.
- 2.3. 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.
- 3.4. The contractor must comply with all Federal, State and local licensing, codes and regulations.
- 4.5. 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.
- 5.6. Contractors shall indemnify and hold FPCPEF harmless against any and all injuries, damages; claims or cost, whatsoever caused by items furnished or services performed.
- 6.7. 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.

### **4. INCENTIVE PROCESSING**

Customers on the RSL-2 rate schedule will be eligible to receive a monthly credit on their electric bill for the billing months of November through March only. Customers on the RSL-1 rate schedule will be eligible to receive a monthly credit during every month of the year.

### **5. REPORTING REQUIREMENTS**

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

**RATE SCHEDULE RSL-2  
 RESIDENTIAL LOAD MANAGEMENT – WINTER ONLY**

**Availability:**

Available only within the range of the Company's load management system.

**Applicable:**

To Customers eligible for residential service under Rate Schedule RS-1 or RSS-1 having a minimum average monthly usage of 600 kWh for the months of November through March (based on the most recent billings or, where not available, a projection for those months), and utilizing both an electric water heater and central-an electric central heating systems:

**Character of Service:**

Continuous service, alternating current, 60 cycle, single-phase, at the Company's standard distribution secondary voltage available. Three-phase service, if available, will be supplied only under the conditions set forth in the Company's booklet "Requirements for Electric Service and Meter Installations.

**Limitation of Service:**

Service to the electrical equipment specified above may be interrupted at the option of the Company by means of load management devices installed on the Customer's premises.

Standby or resale service not permitted hereunder. Service under this rate schedule is subject to the Company's currently effective and filed "General Rules and Regulations for Electric Service."

**Rate Per Month:**

<b>Customer Charge:</b>	\$ 8.03
<b>Energy and Demand Charges:</b>	
Non-Fuel Energy Charges:	
First 1,000 kWh	3.315¢ per kWh
All additional kWh	4.315¢ per kWh
plus <u>an</u> Energy Conservation Cost Recovery Factor:	See Sheet No. 6.105
plus <u>a</u> Capacity Cost Recovery Factor:	See Sheet No. 6.105
plus <u>an</u> Environmental Cost Recovery Clause Factor:	See Sheet No. 6.105
<b>Additional Charges:</b>	
Fuel Cost Recovery Factor:	See Sheet No. 6.105
Gross Receipts Tax Factor:	See Sheet No. 6.106
Right-of-Way Utilization Fee:*	See Sheet No. 6.106
Municipal Tax:*	See Sheet No. 6.106
Sales Tax:*	See Sheet No. 6.106

\* If applicable

**Load Management Credit Amount:<sup>1</sup>**

<u>Interruptible Equipment</u>	<u>Monthly Credit<sup>2</sup></u>
Water Heater and Central Heating System <sup>3</sup>	\$11.50

- Notes: (1) Load management credits shall not exceed 40% of the Non-Fuel Charge associated with kWh consumption in excess of 600 kWh/month.  
 (2) For billing months of November through March only.  
 (3) For Heat Pump systems after MMDDYY the Company reserves the right to may, at its option, interrupt only the secondary resistive-resistance heating elements for the duration of the entire designated Peak Period. During this time, in which case the primary heat pump system will not be allowed subject to operate without interruption.

**Appliance Equipment Interruption Schedule:**

<u>Central Heating</u>	Equipment interruptions will not exceed an accumulated total of 16.5 minutes during any 30 minute interval within the Company's designated Peak Periods, <u>except as provided in Note (3) above.</u>
<u>Water Heater</u>	Equipment may be interrupted continuously, not to exceed 300 minutes, and during the Company's designated Peak Periods.

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**RATE SCHEDULE RSL-2  
RESIDENTIAL LOAD MANAGEMENT – WINTER ONLY**  
(Continued from Page No. 1)

**Peak Periods:**

The designated Peak Periods, expressed in terms of prevailing clock time and subject to Special Provision 5 below, shall be, but are not limited to these as follows:

(4) For the calendar months of November through March – All Days: 6:00 a.m. to 11:00 a.m., and  
6:00 p.m. to 10:00 p.m.

**Terms and Conditions:**

All terms and conditions of Rate Schedule RS-1, Residential Service, ~~i.e., including~~ Fuel Charges and other Billing Adjustments, Minimum Monthly Bill, Terms of Payment, Term of Service, and Budget Billing Plan, shall apply to service under this rate schedule.

**Special Provisions:**

1. The Company shall be allowed reasonable access to the Customer's premises to install, maintain, inspect, test and ~~or remove~~ the load management devices on for the electrical equipment specified above.
2. Prior to the installation of load management devices, the Company ~~may inspect the Customer's electrical equipment specified above to ensure good repair and working condition, but the Company shall not be responsible for the repair or maintenance of the electrical-such equipment.~~
3. The Company shall not be required to install load management devices on electrical equipment which would not be economically justified for reasons, such as, excessive installation costs, insufficient load, oversized heating ~~or cooling~~ equipment, or abnormal utilization of the electrical equipment, including but not limited to, vacation-seasonal or other limited occupancy residences or qualifying common use facilities.
4. Multiple units of any electrical equipment specified above must all be installed with load management devices to qualify for the load management credit attributable to that equipment that at that premise under this rate schedule.
5. The ~~limitations on interruptible equipment interruptions contained in this rate Schedules~~ shall not apply during critical capacity conditions on the Company's system; nor shall limitations apply at times the Company requires additional generating resources to maintain firm power sales commitments or supply emergency interchange service to another utility for its firm load obligations only. The Company may also exercise equipment interruptions at any times for the purpose of testing and or evaluating the performance evaluation of its load management system.
6. If the Company determines that the load management devices installed on a Customer's premises have been tampered with, the Company may discontinue service under this rate schedule and bill for all prior load management credits received by the Customer, unless ~~an earlier~~ the tampering date can be established to the Company's satisfaction, plus applicable investigative charges.
7. Billing under this ~~Rate S~~chedule will commence with the first complete billing period following installation of the load management devices. A Customer may transfer to another rate schedule by notifying the Company at least forty-five (45) days in advance, if a however the eCustomer transfers to another rate schedule they are will not be eligible service under this rate schedule for 12 months from the date of the transfer.
8. If the Company determines that the effect of equipment interruptions has been offset by the Customer's use of supplementary or alternative electrical equipment, or if access cannot be obtained by the Company to inspect, maintain, test or remove load management devices, service under this rate schedule may be discontinued and the Customer billed for all prior load management credits received over a period not in excess of six (6) Mmonths.