

Steel Hector & Davis

Tallahassee Florida

Charles A Guyton (904) 222 3423

January 31, 1995

By Hand Delivery

Blanca S. Bayó, Director Records and Reporting Florida Public Service Commission 101 East Gaines Street Tallahassee, Florida 32399

Officenda HE COD

Re: Approval of Demand Side Management Plan Docket No. 941170-EG

Dear Ms. Bayó:

Enclosed for filing on behalf of Florida Power & Light Company ("FPL") in Docket No. 941170-EG are the original and fifteen (15) copies of the Petition For Approval OF Modifications To Florida Power & Light Company's Demand Side Management Plan, the Demand Side Management Plan of Florida Power & Light Company Plan Document, and the Demand Side Management Plan of Florida Power & Light Company Plan Appendix A.

Attached as Appendices A and B to FPL's petition are the new and revised rate schedules necessary to implement the modifications to FPL's DSM Plan. These rate schedules are for General Service Load Control ("GSLC") and Commercial Industrial Load Control ("CILC"), and the following tariff sheets are being filed:

Original Sheet No. 8.109
Original Sheet No. 8.110
Fifth Revised Sheet No. 8.650
Sixth Revised Sheet No. 8.651
Second Revised Sheet No. 8.652
Second Revised Sheet No. 8.653
First Revised Sheet No. 8.654
First Revised Sheet No. 8.655
Original Sheet No. 8.655
Original Sheet No. 8.657
Original Sheet No. 8.658
Original Sheet No. 8.659
Second Revised Sheet No. 9.490
Second Revised Sheet No. 9.491
First Revised Sheet No. 9.492 RECEIVED & FILED

mor

Tallahassee Office 215 South Monroe Sute 601 Tallahassee, FL 32301-180-(904) 222-2300 Fax (904) 222-8410 4000 Souti east Financial Center Marni, FL 33131 - 2398 (305) 577 - 7000 Fax: (305) 358 - 1418 1900 Philips Point West 777 South Flagter Drive West Palm Beach, FL 33401 6 (407) 650-7200 Fax: (407) 655-1509 PSC-RECORDS REPORTIN

FPSC-RECORDS/REPORTING

PSC-RECORDS/REPORTING

Blanca S. Bayó, Director Records and Reporting Florida Public Service Commission January 31, 1995 - Page Two

The changes to the CILC rate will not change the typical bill, and the GSLC rate is a new rate. The estimated number of customers and the estimated gross decrease in annual revenues for these rates are shown in the Plan Document or on their respective cost-effectiveness analyses in the Plan Appendix A.

A description of the service offered under each rate schedule and the justification and supporting documentation for the changes to CILC are in the Plan Document. The tariff sheets in final form are in Appendix A to the petition. The CILC sheets in legislative format are in Appendix B to the petition.

If you or your Staff have any questions regarding this transmittal, please contact me.

Very truly yours,

Charles A. Guyton

CAG/sh encs.

cc: All Parties of Record

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of (1) the Petition For Approval Of Modifications To Florida Power & Light Company's Demand Side Management Plan, (2) the Demand Side Management Plan of Florida Power & Light Company Plan Document, and (3) the Demand Side Management Plan of Florida Power & Light Company Plan Appendix A, were served by Hand Delivery (when indicated with an *) or mailed this 31st day of January, 1995 to the following:

Michael A. Palecki, Esq.* Division of Legal Services Florida Public Service Commission 101 East Gaines Street, Room 226 Tallahassee, Florida 32301

James A. McGee, Esq. Florida Power Corporation Post Office Box 14042 St. Petersburg, Florida 33733-4042

G. Edison Holland, Jr., Esq. Beggs & Lane Post Office Box 12950 Pensacola, Florida 32576-2950

Lee L. Willis, Esq.*
James D. Beasley, Esq.
Macfarlane, Ausley, et al.
227 South Calhoun Street
Tallahassee, Florida 32302

Debra Swim, Esq.*
Legal Environmental
Assistance Foundation, Inc.
1115 North Gadsden Street
Tallahassee, Florida 32303

Jack Shreve, Esquire*
John Roger Howe, Esquire
Office of Public Counsel
111 West Madison Street, Room 812
Tallahassee, Florida 32399-1400

Robert Scheffel Wright, Esq.* Landers & Parsons 310 West College Avenue Third Floor Tallahassee, Florida 32301

Charles A. Guyton

TABLE OF CONTENTS

	<u>P</u> :	age
INTRODUC	CTION	. 3
SECTION	I - OVERVIEW	. 6
A.	Aggressive Commission Goals	. 6
в.	Composition of DSM Plan	13
c.	Reassessment of Residential Water Heating	18
D.	Green Pricing	20
E.	Measures Comprising Programs	20
F.	Measures Previously Classified as "R&D"	22
G.	Summary	26
SECTION	II - RESIDENTIAL PROGRAMS	27
A.	Residential Program Overview	27
в.	Detailed Program Descriptions	29
	1. Residential Building Envelope	30
1	2. Duct System Testing and Repair	38
	3. Residential Air Conditioning	47
y and a second	4. Residential Load Management (On Call)	55
	5. Residential Heat Recovery Water Heating	66
	6. Residential Conservation Service	74
SECTION	III - COMMERCIAL/INDUSTRIAL PROGRAMS	80
Α.	Commercial/Industrial Program Overview	80
в. 1	Detailed Program Descriptions:	
	 Commercial/Industrial Heating, Ventilating 	
	and Air Conditioning	85
:	2. Commercial/Industrial Efficient Lighting	95

	3.	Commercial/Industrial Efficient Motors 103
	4.	Off Peak Battery Charging
	5.	Business Custom Incentive
	6.	Commercial/Industrial Load Control 130
	7.	Business Energy Evaluation
	8.	Commercial/Industrial Building Envelope 162
	9.	General Service Load Management
SECTION	IV	- RESEARCH EFFORTS
A.	Res	earch Overview
в.	Gre	en Pricing
c.	Flo	rida Coordinating Group (FCG) Efforts 187
D.	Det	ailed Program and Project Descriptions 188
	1.	Conservation Research and Development Program 188
	2.	Existing Research and Development Projects 190
		. Wat Water Change Bassauch Bradest 190
		a. Hot Water Storage Research Project 190
		b. Residential Thermal Energy Storage Project 191
		 New Home Construction Research Project 192 d. Commercial/Industrial Dehumidification
		Research Project
	3.	Proposed Research and Development Projects 195
		a. Residential Heat Pump Water Heating Research
		Project
		Terms and Conditions
		c. Cool Communities
		d. Residential Solar Water Heating 229
SECTION	v -	LOST REVENUES AND INCENTIVES
SECTION	VI	- LOW INCOME PARTICIPATION AND BENEFITS 242
CPCSTON	177 T	_ gmanpy 249

INTRODUCTION

Pursuant to Florida Administrative Code Rule 25-17.0021, Florida Power & Light Company (FPL) is submitting a Demand Side Management Plan designed to meet the conservation goals established by the Commission in Order No. PSC-94-1313-FOF-EG. This Demand Side Management (DSM) Plan consists of: six (6) Residential DSM programs, nine (9) Commercial/Industrial DSM programs, one (1) Conservation Research and Development program, eight (8) research and development (R&D) projects, participation Florida in Coordinating Group (FCG) research and one (1) concept (Green Pricing). FPL anticipates that the proposed programs will achieve FPL's approved goals in their entirety through the year 2000. As the Commission recognized in approving FPL's goals, FPL will be looking primarily to the results of its research efforts to be able to achieve its 2001 through 2003 goals. FPL's eight R&D projects, participation in FCG research and the continuation of the existing Conservation Research and Development program reflect FPL's commitment to find the savings necessary to achieve its goals through 2003.

This report builds upon FPL's two reports previously filed with the Commission and reviewed in Docket No. 930548-EG: FPL's Cost-Effectiveness Goals Results Report (CEGRR) filed February 18, 1994 and FPL's Technical Market Potential Results Report (TMPRR) filed September 16, 1993. The TMPRR provided the starting point from which the quantification of the achievable market potential for

each of the measures examined in the CEGRR was determined. The CEGRR contained a detailed economic evaluation of 217 measures and identified 41 of those measures to be cost-effective under the Rate Impact Measure (RIM) and Participants tests. Those 41 measures, as well as an additional measure (Water Heating Heat Recovery Unit), have been packaged into comprehensive FPL programs.

This report contains seven sections. Section I provides an overview of FPL's DSM Plan, addressing how the Plan will achieve FPL's goals and listing the programs, projects and measures offered. Section II is a detailed description of the Residential DSM programs being proposed. Section III is a detailed description of the Commercial/Industrial DSM programs being proposed. Section IV is a detailed description of FPL's DSM research and development efforts being undertaken and proposed. Section V is a discussion of FPL's analysis of whether to seek lost revenue recovery or incentives for measures in selected end uses. Section VI addresses the participation of low income customers in FPL's DSM programs and discusses the benefits obtained by low income customers from FPL's DSM Plan. Section VII is a summary.

This report also has a companion Appendix A containing copies of the cost effectiveness analyses performed in support of individual programs. It also contains the "Summary of Demand-Side Management Programs Included in The Proposed Plan Period 1994-2003" required by Order No. PSC-94-1486-PCO-EI (Attachment F).

SECTION I - OVERVIEW

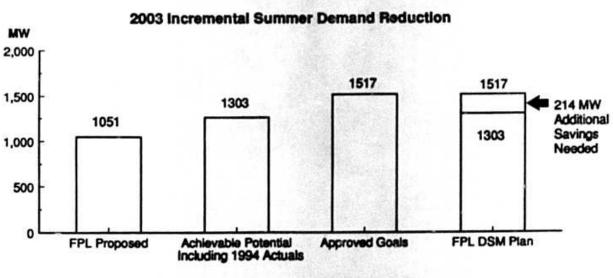
A. Aggressive Commission Goals

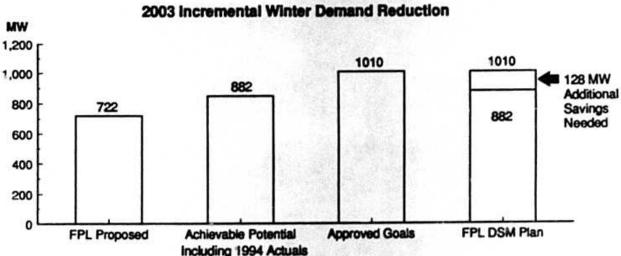
Consistent with the Commission's approach in establishing FPL's conservation goals, FPL's DSM Plan consists of programs that pass the Rate Impact Measure (RIM) and Participants tests and R&D projects that evaluate measures having the potential to pass the RIM and Participants tests. By FPL offering programs and R&D projects that pass these tests, both participants and nonparticipants will benefit from FPL DSM offerings.

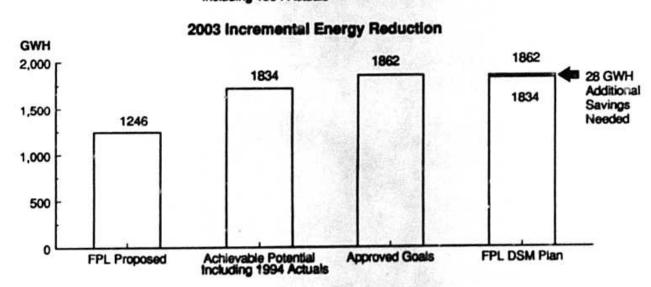
FPL's DSM Plan has been designed to achieve the aggressive RIM-based goals established by the Commission for FPL. As shown on Table 1, these goals for the entire ten year period (1994-2003) significantly exceed not only the planning process based goals proposed by FPL, but also the entire Achievable Potential under the RIM and Participants tests quantified by FPL through 2003.

To achieve the aggressive goals established by the Commission, FPL will have to offer programs that capture the entire Achievable Potential of DSM under the RIM and Participants test plus find additional savings. This is shown graphically in Table 1. Finding these additional savings will be challenging. FPL's 2003 goals exceed all currently known Achievable Potential under the RIM and Participants tests by 214 MW of Summer demand, 128 MW of Winter

TABLE 1
Comparison of Proposed Goals, Achievable Potential, Goals, Plan







demand, and 28 GWH. These additional savings will have to come from either achieving more than projected savings from the programs proposed here or from new programs/measures identified from R&D efforts.

Recognizing this challenge, FPL's DSM Plan includes extensive R&D efforts. Eight individual research projects and FCG research efforts are proposed, as well as continuing FPL's existing Conservation Research and Development program. In addition, there is the Green Pricing concept included in FPL's DSM Plan. FPL's ongoing Commercial/Industrial Real Time Pricing Research Project that has not been included in FPL's DSM Plan, but it has potential to contribute towards the goals.

The reliability analyses presented by FPL in the Conservation Goals proceeding show that FPL's proposed DSM goals would have deferred the need for additional resources until the year 2002. However, achieving the Commission's goals approved for FPL would, under the same planning assumptions used in the Conservation Goals proceedings, defer all resource needs to the year 2003. This is shown in Table 2, which compares the level of DSM necessary to meet FPL's reliability criteria in each year with FPL's proposed goals and FPL's approved goals.

TABLE 2

COMPARISON OF DSM RESOURCES NEEDED TO MEET FPL SYSTEM RELIABILITY CRITERIA WITH FPL'S PROPOSED AND APPROVED GOALS (Cumulative Incremental Summer Demand)

Year	Cumulative Incremental DSM HW Resources	PPL's** Proposed Goals	Approved Goals
1995	0	292	292
1996	0	439	439
1997	276	585	585
1998	443	740	740
1999	443	896	896
2000	601	1,051	1,051
2001	940	1,051	1,206
2002	1,280	1,051	1,361
2003	1,646	1,051	1,517

^{*} These values are premised upon the planning assumption used by FPL in the Conservation Goals proceeding, Docket No. 930548-EG. They were taken from page 61 of FPL's Cost Effectiveness Goals Results Report.

^{**} Includes 111 MW of Summer demand projected in 1994.

Tables 3 and 4 show the market segment demand and energy data information required by Order No. PSC-94-1486-PCO-EI (Attachments D and E). Each table shows that FPL anticipates meeting the prescribed goals. However, it should be noted that for the years 2001 through 2004 FPL has not yet identified programs for all the projected savings; FPL will rely upon its existing and future R&D efforts primarily to achieve the remaining savings. This is consistent with the Commission's discussion of FPL's goals in Order No. PSC-94-1313-FOF-EG, where the Commission acknowledged that successful R&D efforts are necessary for FPL to achieve its goals.

TABLE 3 (ATTACHMENT D)

RESIDENTIAL MARKET SEGMENT DEMAND AND ENERGY DATA

		PROJECTED SUMMER DEMAND SAVINGS (MW) COMMISION		PROJECTED WINTER DE SAVINGS	MAND	COMMISION	PROJECTE ANNUAL E SAVINGS	NERGY	COMMISION
YEAR	INCR.	CUM.	APPROVED SUMMER MW GOAL (CUM.) **	INCR.	CUM.	APPROVED WINTER MW GOAL (CUM.) **	INCR.	CUM.	APPROVED ANNUAL GWH GOAL (CUM.) **
1995***	93	201	181	80	181	157	84	186	150
1996	92	292	272	79	260	236	91	277	239
1997	91	383	362	78	338	315	99	376	337
1998	94	477	455	79	418	394	117	493	453
1999	89	565	543	74	492	468	117	610	568
2000	89	654	631	74	566	542	117	727	684
*2001 PP 2001 R&D	36 29	719	719	32 19	617	617	56 15	799	799
*2002 PP 2002 R&D	36 52	807	807	32 43	691	691	56 59		
*2003 PP 2003 R&D	36 52	895		32	766	200	56		
*2004 PP 2004 R&D	0	895		0	766		0	1030	

NOTE:

INCR.- INCREMENTAL CUM.- CUMULATIVE

^{*** 1995} CUMULATIVE NUMBER INCLUDES 1994 ACTUAL VALUES

[&]quot; - PURSUANT TO ORDER NO. PSC-94-1313-FOF-EG

^{*}VALUES FOR 2001-2004 INCLUDE SAVINGS FROM PROPOSED PROGRAMS(PP)
AS WELL AS FROM OTHER ALTERNATIVES SUCH AS R&D EFFORTS

TABLE 4 (ATTACHMENT E)

COMMERCIAL/INDUSTRIAL MARKET SEGMENT DEMAND AND ENERGY DATA

	PROJECTED SUMMER DI SAVINGS (EMAND	COMMISION	PROJECTED WINTER DE SAVINGS	MAND	COMMISION	PROJECTE ANNUAL E SAVINGS	NERGY	COMMISION
YEAR	INCR.	CUM.	APPROVED SUMMER MW GOAL (CUM.) **	INCR.	CUM.	APPROVED WINTER MW GOAL (CUM.) **	INCR.	CUM.	APPROVED ANNUAL GWH GOAL (CUM.) **
1995***	88	132	111	60	77	69	72	216	139
1996	55	187	167	23	100	93	75	291	212
1997	57	244	223	21	121	114	82	373	292
1998	62	306	285	21	143	136	92	464	383
1999	67	373	353	21	164	158	90	554	473
2000	67	440	420	21	185	180	90	644	563
*2001 PP 2001 R&D	34 13	487	487	7 9	202	202	69	713	652
*2002 PP 2002 R&D	34	554	554	12 10	223	223	98 0	811	742
*2003 PP 2003 R&D	34	622		16	245		127 0	937	
*2004 PP 2004 R&D	0	622			245			937	

NOTE:

INCR.- INCREMENTAL CUM.- CUMULATIVE

^{*** 1995} CUMULATIVE NUMBER INCLUDES 1994 ACTUAL VALUES

[&]quot; - PURSUANT TO ORDER NO. PSC-94-1313-FOF-EG

^{*}VALUES FOR 2001-2004 INCLUDE SAVINGS FROM PROPOSED PROGRAMS(PP)
AS WELL AS FROM OTHER ALTERNATIVES SUCH AS R&D EFFORTS

B. Composition of DSM Plan.

FPL's DSM Plan is a diversified plan designed to achieve FPL's approved conservation goals. To meet those aggressive goals, FPL's DSM Plan captures all known cost-effective DSM potential and attempts to find additional cost-effective savings through extensive research. As currently designed, FPL's DSM Plan consists of six (6) Residential programs, nine (9) Commercial/Industrial programs, one (1) research program, eight (8) individual research projects, a concept and participation in the Florida Coordinating Group (FCG) research. Other concepts may evolve into research projects or programs. As with prior plans, FPL anticipates that the Plan will likely change over time due to program experience, research results, changes in FPL's system needs, and the options which may become available to FPL.

Residential Programs

Residential Building Envelope

Duct System Testing and Repair

Residential Air Conditioning

Residential Load Management (On Call)

Residential Heat Recovery Water Heating

Residential Conservation Service (RCS)

Commercial/Industrial Programs

Commercial/Industrial Heating, Ventilating and Air Conditioning
Commercial/Industrial Efficient Lighting

Commercial/Industrial Efficient Motors
Off Peak Battery Charging
Business Custom Incentive
Commercial/Industrial Load Control
Pusiness Energy Evaluation
Commercial/Industrial Building Envelope
General Service Load Management

Research Efforts

Research Program:

Conservation Research and Development
Research Projects:

Hot Water Storage

Residential Thermal Energy Storage

New Home Construction

Commercial/Industrial Dehumidification

Residential Heat Pump Water Heating

Demand Load Control Trial

Cool Communities

Residential Solar Water Heating

Concept:

Green Pricing

Other Research:

Florida Coordinating Group (FCG)

Tables 5 and 6 show how existing conservation programs are being incorporated into FPL's proposed Plan. These tables show that all existing FPL programs will be continued in some fashion. These tables also illustrate how some of the existing programs have been combined with other measures under one of the proposed programs to offer a more comprehensive approach. For example, that is the case for the Residential Ceiling Insulation and Window Treatment programs. Those two programs have been combined with new measures under the Residential Building Envelope Program.

TABLE 5

CLASSIFICATION OF PROGRAMS AND RED PROJECTS

RESIDENTIAL PROGRAMS

PROGRAM OR RED PROJECT NAME	Existing Program or R&D Project to Continue w/o Change	Existing Program or R&D Project to Continue with Modifications	Existing Program or R&D Project to be Discontinued	New programs or R&D Projects
RESIDENTIAL CEILING INSULATION		X BLDG, ENV.		1
CONSERVATION WINDOW TREATMENT		X BLDG, ENV.		
HOME ENERGY LOSS PREVENTION (H.E.L.P.)		X DUCT	X LOW COST	
RESIDENTIAL HIGH EFFICIENCY HVAC		XHVAC		- 2-75
RESIDENTIAL LOAD MANAGEMENT(ON CALL)	×			
RESIDENTIAL CONSERVATION SERVICE(RCS)	×	Barring and		w Family
CONSERVATION WATER	The state of	X WHRU		X SOLAR RED
CONSERVATION RESEARCH & DEVELOPMENT (CRD)		хсяо	J. 1944	
NEW HOME CONSTRUCTION	X ReD			
THERMAL ENERGY STORAGE	X ReD			
HOT WATER STORAGE	X ReD			
WATER HEATING HEAT PUMP		PK W	- Valley	X RAD
COOL COMMUNITIES	3			X RED

BLDG.ENV.=BUILDING ENVELOPE PROGRAM DUCT=DUCT SYSTEM TEST.& REPAIR PROGRAM HVAC=AIR CONDITIONING PROGRAM

WHRU-HEAT RECOVERY WATER HEATING PROGRAM CRD-CONSERVATION REASERCH AND DEVELOPMENT PROGRAM

CLASSIFICATION OF PROGRAMS AND RED PROJECTS

C/I PROGRAMS

PROGRAM OF RED PROJECT NAME	Existing Program or R&D Project to Continue w/o Change	Existing Program or R&D Project to Continue with Modifications	Existing Program or R&D Project to be Discontinued	New programs or R&D Projects
HIGH EFFICIENCY HVAC DX		X HVAC		
WATER COOLED CHILLER		X HVAC	Mar on	
AIR COOLED CHILLER		X HVAC	25	
THERMAL ENERGY STORAGE	W 40-1-1-1-1	XHVAC		
EFFICIENT LIGHTING		X LIGHT		
EFFICIENT MOTORS		X MOTORS		
OFF PEAK BATTERY CHARGING		XOPEC		
BUSINESS EMERGY EVALUATION (BEE)		X DEE		
BUSINESS ENERGY EVALUATION NEW CONSTRUCTION		XME		
BUSINESS CUSTOM INCENTIVE (BCI)		XICI		PE-CHE
COMMERCIAL INDUSTRIAL LOAD CONTROL(CR.C)		xcac		
BUILDING ENVELOPE				x
GS LOAD MANAGEMENT				x
REFRIGERATION		X acı		
CONSERVATION RESEARCH & DEVELOPMENT (CRD)		X CRD		
DEHUMIDIFICATION	X RSD			
DEMAND LOAD CONTROL				X RAD

HVAC=HVAC PROGRAM LIGHT=EFFICIENT LIGHTING PROGRAM MOTORS=EFFICIENT MOTORS PROGRAM CILC=C/I LOAD CONTROL PROGRAM OPBC=OFF PEAK BATTERY CHARGING PROGRAM
BEE=BUSINESS ENERGY EVALUATION PROGRAM
BCI=BUSINESS CUSTOM INCENTIVE PROGRAM
CRD=CONSERVATION REASERCH AND DEVELOPMENT PROGRAM

Two (2) new programs and four (4) new R&D efforts have also been added to FPL's DSM Plan. The two new programs are: C/I Building Envelope and General Service (GS) Load Management. The new R&D efforts are: Cool Communities, Residential Water Heating Heat Pump, Residential Solar Water Heating, and a Demand Load Control Trial.

The only programs that have not undergone changes and will continue to be offered without modifications are: Residential Load Management (On Call) and Residential Conservation Services (RCS). Four (4) R&D efforts also remain unchanged: Residential Thermal Energy Storage, Hot Water Storage, New Home Construction, and Commercial/Industrial Dehumidification.

C. Reassessment of Residential Water Heating

As required by Order No. PSC-94-1486-PCO-EI, FPL has reassessed its residential water heating measures. This reassessment has resulted in FPL continuing to offer the measures currently offered in its Conservation Water Heating Program, but offering them in a different fashion. The existing Heat Recovery Unit (HRU) offering will continue, with modifications, as a program offering. Solar water heating installations will be made through a R&D project.

The HRU measure did not pass the Participant test in the analyses performed in the Conservation Goals Docket because of high installation costs. Since FPL's CEGRR report was filed, further research has indicated that most HRUs are installed when customers

replace their air conditioner. Research also indicated that when both units are installed, the price for the HRU installation decreases considerably. Once this decrease in price was incorporated into the cost-effectiveness analysis, the measure passed the Participant test. Since this was the only obstacle to its inclusion in FPL's proposed list of conservation measures (it never failed the RIM test), the measure is now being continued as a conservation program.

The Residential Solar Water Heating measure has also been reassessed. The reassessment has resulted in the development of a research project. Some of the potential issues that will be addressed during the project are: investigation of new solar water heating technologies that potentially could be cost-effective under the RIM and Participant tests and the determination of market segments, if any, for which Residential solar water heating could be a cost-effective alternative. If this proposed R&D project is approved by June 1995, FPL currently plans to start implementation of it in the third quarter of 1995.

Independent of the research project, FPL is pursuing with DCA a joint effort to commit \$2.5 million of DCA funds to FPL's service territory/customers for installation of solar water heating measures.

D. Green Pricing

Green Pricing is also being pursued as a concept. When implemented, Green Pricing will be used to collect funds on a voluntary basis from all willing FPL customers to cover the cost of the installation and operation of photovoltaic (PV) modules. Bids will be solicited from the PV industry for the construction and installation of the PV modules. FPL is now attempting to determine the cost to convert its billing system to allow the collection of voluntary contributions through customers' electric bills. When plans are finalized, FPL will be presenting the results to the Commission Staff. FPL seeks to recover the expenses associated with the initial research and development requirements and the ongoing administrative costs for the establishment of the Green Pricing concept through the Energy Conservation Cost Recovery (ECCR) clause.

E. Measures Comprising Programs

Table 7 lists the proposed Residential programs and the measures offered in each program. As shown in the table, FPL is proposing six (6) Residential programs: Residential Air Conditioning, Residential Building Envelope, Duct System Testing and Repair, Residential Heat Recovery Water Heating, Residential Load Management, and Residential Conservation Services (RCS). The table also shows the incentive amount and demand and energy savings associated with each program.

21

TABLE 7
SUMMARY OF RESIDENTIAL PROGRAMS

PROGRAM NAME	ELIGIBLE MEASURES	ELIGIBLE MEASURE DESCRIPTION	/PART.(5)	/PART.(W)	KWH SAVINGS /PARTICIPANT	INCENTIVE/
	RSC-1	HILEFF.HEAT PUMP	0.31			1200
	RSC-21A	HI EFF.AC	0.36			STATE OF THE STATE OF
AIR CONDITIONING	RSC-24A&C	HI EFF.ROOM AC	0.15	0.00		and and
	PROGRAM	A CONTRACTOR OF THE PARTY OF TH	0.26	0.0004	664	\$336-\$384
	RSC-10A	CLINS.RO-R19	0.31	0.36	840	House to the
	RSC-108	CLING.RO-R19	0.10		The second secon	
	RSC-11A	CLINS.R11-R30 EXS.	0.19	0.25		
BUILDING ENVELOPE	RSC-12A	CLINS.R19-R30 EXS.	0.07	0.13		1951.15 902
	RSC-16A	FILM & REF.GLASS	0.17	0.00	The second section of the second seco	
	RSC-17A	LOW E GLASS	0.07	0.17	The County of th	
	RSC-18A	SHADE SCREENS	0.18	0.00	372	
	PROGRAM	e the state of the	0.19	0.14		\$344-\$348
	RSC-8A	DLC HEAT SOY	0.00	0.44	7	Walter Carrie
	RSC-88	DLC HEAT SHED	0.00	2.00		ALTON AND A
	RSC-26A	DLC AC 50%	0.84	0.00	29 23	
LOAD MANAGEMENT	RSC-268	DLC AC SHED	1.88	0.00	42	
(ON CALL)	PP-3	DLC POOL PUMP	0.49	0.15	46	
	WH-10 COMBINATION	DLC WATER HEAT.	0.21	0.49	13	118
	PROGRAM	10-10-1	1.03	0.97	42	\$76
at the same of	RSC-5A	REDUCE DUCT LEAK	0.34	0.65	546	
DUCT SYSTEM	RSC-58	REDUCE DUCT LEAK	0.35	0.65	554	
testing a repair	PROGRAM		0.34	0.65	547	\$629
HEAT RECOVERY	WH-4	HEAT REC.UNIT	0.22	0.00	579	
WATER HEATING	PROGRAM		0.22	0.00	579	\$509-\$632
RESIDENTIAL CONS.	RCS	RESIDENTIAL AUDITS	II N/A	N/A	N/A	N/A
SERVICES (RCS)	PROGRAM		N/A	N/A	N/A	N/A

[&]quot;-INCENTIVE VALUE FOR THE ON CALL PROGRAM IS PER MONTH

Table 8 lists the proposed Commercial/Industrial programs and their associated measures. The nine (9) Commercial/Industrial programs are: High Efficiency Heating, Ventilation and Air Conditioning, Building Envelope, Efficient Lighting, Off Peak Battery Charging, High Efficiency Motors, Commercial/Industrial Load Control, General Service (GS) Load Management, Business Custom Incentive (BCI) and Business Energy Evaluation (BEE). Even though there is not a separate program for refrigeration measures, these measures will be offered as part of the BCI Program.

F. Measures Previously Classified as "R&D"

During the technical market potential phase of the Conservation Goals Docket, several measures were identified by FPL and the Commission as R&D. As illustrated on Tables 9 and 10, FPL is addressing these measures in four (4) venues: individual R&D projects, the CRD program, coordinated efforts through the Florida Coordinating Group (FCG), and the Gas R&D filing which is due six (6) months from the day Order No. PSC-94-1313-FOF-EG was issued.

TABLE 8

SUMMARY OF C/I PROGRAMS

HOGEAM	EUGIBLE	MEASURE		UGIBIL	TY	KW SAVIN	OL/PAM,	CO STATE OF	W SAVING	S/PART (W) 2015	EWH SAY	/INGS/PAR	100155-007	PARTICIPANT	INCENTIVE /
AME .	MEASURES	DESCRIPTION	GS	CID	eard	C3	eso	esto	GS	GSD	eard	GS	E3D	GSLD	DEFINITION	KW
	SCD-1	HIGH EFF.CHILLER		×	×		84.00	84.00		1,80	1.80		100,000	100,000		
	SCD-2	HIGH EFF.CHLASD		×	×		84.00	84,00		1,00	1.80		144,460	144,460		1
	SCD-3	HIGH EFF.DX	×	×	×	1.41	1.41	1.41	8,00	0.00	8.00	4,337	4,337	4,337		
	SCD-4	HIGH EFF. ROOM AC	×			1.62	i samera		0.00			4,363				
COMPRESCIAL	SCD-6	COOL STORAGE		×	×		244.40	244.40		10,78	10,76		-37,648	-37,644		
MVAC	VD-1	LEAK PREE DUCTS	1	×	×		1.26	0.00	- 1	13.66	0.82		2,432	26,048		
	VD-18	SEP MAKE UP AR CH		X	×		60.00	460.00	- 1	24.23	342.54		270,575	2,932,105		1
	VD-11	SEP MAKE UP AR DX	×	×	×	6.66	42.54	400.00	0.92	6.91	64.67	14,777	107,227	1,209,339		
	FPL-1	AR TO WATER CHL		×	×	1.0	10.06	10.06		0.60	0.40		63,910	63,910		
The state of	PROGRAM	2. 国际发展的现在分词	N. P. Call	Section	515A1	14,250	3.86	6345X6	BOX THE	0.11	は多くない	REPRESENTATION AND ADDRESS OF THE PARTY AND AD	4,264	A CONTRACTOR	PARTICIPANT	\$134 - \$234
	9CD-18	SOOL BREAFTCHATTES	7) Best	×	×	100100	3.23	34.84		9.84	9.10		8,544	40,047		
BATTOSIO	9CD-19	RCOF BISULDX	X	×	X	0.87	8.84	60,65	0.14	0.87	9.44	1,825	4,866	71,809		
BIVELOPE	BCD-22	WINDOW FILM CHL	1	X	X	1.0020	2.21	23.61	1.0	0.06	0.56	5000	7,067	76,273		
	SCD-25	WINDOW FILM DX	X	X	X	0.41	2.61	20,54	0.01	0.07	0.70	1,309	8,067	97,348		J
The second	PROGRAM	和思想的問題的可能是	会の中国対	能地	SEPARE.	\$400 W.	1.10	PANASA.	ESE 250	0.07	readbase.	DESIGNA	1,239	为中心社会	PARTICIPANT	We 14 1413
EFFICIENT	CTO-ALL	LIGHT ALL MEASURES	X	X	X	0.06	0.07	0.07	0.04	0.04	0.04	247	301	344		
DOMINIO	PROGRAM	参加的企业和政治的	COMPANY.	語言の	(医物体)	信用を記される計	NEW PARTY	神事を必然	(40) TO 100 (10)	SEE BAS	diam'r.	PARTICIPAL PAR	342	Middle Holes St.	FOCTURE .	\$116-\$114
	20-1 20-2	MILAR CLD/NO SUS	9 (graph		X	SELEC	vein.	4.91		100	4.62	Maria .	9600	84,142		Serie Line
1	200	MTAR CLD/AMB.999	13 5 5 00	が変形	X			4.91	100		4.82		EFFER.	69,422		Service and
-	201	MT. AIR CLD/MRC. 978	10 23 35	2014	250	100		4.73	1.00		4.00			60,700		The state of the state of
DICENTIVE	804	MITAR CLD/AMBANEC		25,140		2.770	14-50	4.70		25005	4.00			63,966		Parking
BICERINE		MTAR CLD/UG SUC	9 10151		X		4.77	9.57	KURSE	4.00	8.97		30,918	80,761		10 miles 45 8
	20-8 280GRAM	HIGH R VALUE DOOR	_	X	X	10.00	4.76 Squi 8.10	13.20		4.23	12.34		39,133	110,049	CHILD STREET	
		20 和中央公司的公司的公司	2000000	2000	The second	TUCHEN	ingle-8.10	STREET, I	CIDADIO	MORE AND	STREET,	NUMBER OF STREET	42,944	Manuel Str.	1,000 10 PT	\$36 - \$46
MOTORS	FPL-MI	HIGH EFF,MOTORS	X			8.06		40000000	0.06	UE 3344	100	143	FI STORY OF	學學的是其他的	ARTICLE TO SERVICE STATE OF THE PARTY OF THE	
	PEOGRAM	2、19年1年,2人19年1月1日	1.75/09	Province.	Significant Control	的和概念	1.14	100	ALMOST I	30H 8.96 3	0720305-	COMMENSA	急速143	NAME AND ADDRESS OF	MOTOR SHALL	\$250
OFF PEAK	FPL ONLY	OFF PK BAT.CHR		X			43.00	10%	1000	4.00	and the last	NAME OF		食中を対象して		Indiana Share
BATTERY	PROGRAM	后, 经验 的可能被解析程度加强。20	0.9 (3.8%)	96 275	2250	SUBSTANCES.	43.00	670 CTV	1687	924.00	NI WAR	20 M		数がまず	PAIRTICIPANT	\$67
CILOAD	IPL ONLY	carc		X.	X		0.93	8.93	Sec.	0.93	0.93		16	96		
CONTROL	PROGRAM	S MARCHINE TO SHARE	with and	CO.	200	50,000,000,000	8,93	Metalous 1	到2月 00年	10 8.93	1650/20	5000	は後年	Section Co.	AND THE REAL PROPERTY.	\$44 **
GE LOAD	FPL ONLY	GS LOAD CONTROL	X			1.20			0.00		19-	33	5-11/25 P			
CTEL	PROGRAM	E 萨默特斯特的第三人称单	Seltury China	15. 18.	经经验	和红色的	1.20	还多数心力	W/ 2013	0.00	機比定	1561.370		STATE OF THE PARTY	PARTICIPANT	47***
BUSINES	361	C'A VADILE EXELING	×	×	×				$\neg \neg$					П		
EHERGY	BEE NC	C/I AUDITS HEW CON.	×	X	x									l l		Annual Control
NORABLAYS	PROGRAM	2. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	3 20 5 10 10	N/A	05/20151	Charach.	WA	SUSPECT OF A	PHILIPPE	VA See	TESN.	14536.00	N/A LENE	Charles and	PARTICIPANT	N/A

OVER 200 KW ONLY

^{***} PER SUMMER MONTH

TABLE 9

DISPOSITION OF MEASURES FILED AS R&D IN TECHNICAL MARKET POTENTIAL RESULTS REPORT

RESIDENTIAL R & D SUMMARY

MEASURE #	DESCRIPTION	PSC CODE N/E	METHOD TO OBTAIN DATA		
RSC-19A	REFLECTIVE ROOF COATING	R&D	FCG RESEARCH		
RSC-19B	REFLECTIVE ROOF COATING	R&D	FCG RESEARCH		
RSC-28A	CEILING FANS	CUE/R&D	FCG RESEARCH		
RSC-288	CEILING FANS	CUE/R&D	FCG RESEARCH		
FPL	THERMAL ENERGY STORAGE	R&D	EXISTING R&D PROJECT		
FPL	HOT WATER STORAGE	R&D	EXISTING R&D PROJECT		
FPL	PHOTOVOLTAIC POOL PUMP	R&D	COMPLETED R&D PROJECT		
FPL	BUILDSMART	R&D	EXISTING RAD PROJECT		
FPL	SUBCOOLERS	R&D	CRD PROGRAM		
FPL	DESUPERHEATERS	R&D	CRD PROGRAM		
FPL	GAS SPACE HEATING	R&D	GAS R&D FILING		
FPL	GAS WATER HEATING	R&D	GAS R&D FILING		
FPL	GAS COOLING	R&D	GAS R&D FILING		
FPL	GAS CLOTHES DRYING	R&D	GAS R&D FILING		
FPL	COOL COMMUNITY	NOT.INC.	PROPOSED R&D PROJECT		
FPL	SOLAR WATER HEATING	NOT.INC.	PROPOSED R&D PROJECT		
FPL	FLY ASH CONCRETE BLOCK	NOT.INC.*	CRD PROGRAM		
FPL	COOL MIST	NOT.INC.*	CRD PROGRAM		
FPL	MAINTENANCE OF AC CHARGE	NOT.INC.*	CRD PROGRAM		

[&]quot;= NOT INCLUDED IN TECHNICAL MARKET POTENTIAL RESULTS REPORT

2

TABLE 10 DISPOSITION OF MEASURES FILED AS R&D IN TECHNICAL MARKET POTENTIAL RESULTS REPORT

COMMERCIAL R & D SUMMARY

MEASURE #	DESCRIPTION	PSC CODE N/E	METHOD TO OBTAIN DATA	
SC-D-6	HEAT PIPE ENH.DX AC	R&D	COMPLETED R&D PROJECT	
FPL	COLD AIR DISTRIBUTION	R&D	COMPLETED R&D PROJECT	
FPL	REAL TIME PRICING	R&D	EXISTING R&D PROJECT	
SC-D-26	LITE COLORED ROOF CHILLER	R&D	FCG RESEARCH	
SC-D-27	LITE COLORED ROOF DX.	R&D	FCG RESEARCH	
V-D-2	VAV W/INLET VALVE CH	R&D	FCG RESEARCH	
V-D-3	VAV W/INLET VALVE DX	R&D	FCG RESEARCH	
V-D-4	ASD W/VAV-CHILLER	R&D	FCG RESEARCH	
V-D-5	ASD W/VAV-DX	R&D	FCG RESEARCH	
L-D-28	OCCUPANCY SENSOR	C3/R&D	FCG RESEARCH	
R-D-10	DUAL PATH AC	R&D	FCG RESEARCH	
FPL	SUBCOOLERS	R&D	FCG RESEARCH	
FPL	DESUPERHEATERS	R&D	FCG RESEARCH	
FPL	LIQUID PRESSURE AMPLIFICATION	R&D	CRD PROGRAM	
FPL	DEMAND LOAD CONTROL	R&D	PROPOSED R&D PROJECT	
FPL	GAS SPACE HEATING	R&D	GAS R&D FILING	
FPL	GAS WATER HEATING	R&D	GAS R&D FILING	
FPL	GAS COOLING	R&D	GAS R&D FILING	
FPL	GAS COOKING	R&D	GAS R&D FILING	
FPL	DAYUGHT DESIGN	C3/NA	CRD PROGRAM	
FPL	COOLING TOWER ENHANCEMENT	NOTINC.*	CRD PROGRAM	
FPL	MOISTURE TEST	NOT INC.*	CRD PROGRAM	
FPL	DEAC (dehumidification technology)	NOT INC.	CRD PROGRAM	
FPL	NEW CONSTRUCTION	NOT INC.	CRD PROGRAM	

^{*=} NOT INCLUDED IN TECHNICAL MARKET POTENTIAL RESULTS REPORT

G. Summary

FPL's DSM Plan provides a variety of programs in which FPL's customers may participate. It is designed to achieve aggressive RIM based goals. To meet those goals FPL will offer programs that include all measures currently known to be cost-effective to participants and nonparticipants. To achieve its goals through 2003, FPL will need to supplement these programs in the years 2001-2003 by finding additional savings. Therefore, FPL has incorporated in its Plan vigorous R&D efforts as well.

SECTION II - RESIDENTIAL PROGRAMS

A. Residential Program Overview

FPL's DSM Plan offers six (6) conservation programs. The six conservation programs are: Residential Building Envelope, Duct System Testing and Repair, Residential Air Conditioning, Residential Load Management (On Call), Residential Heat Recovery Water Heating and Residential Conservation Service.

FPL will continue to offer all of its existing measures found to be cost-effective in FPL's CEGRR analysis as part of the proposed Plan. However, the measures may be offered in modified programs.

For example, the measures currently offered as part of the Ceiling Insulation and Window Treatment programs have been combined with other measures, such as low-e glass and various levels of attic/ceiling/roof insulation up to R-30 under the umbrella of the proposed Building Envelope Program. The Building Envelope program will be available to all existing residential customers served by FPL who have whole-house electric air conditioning. Building envelope measures that are required to be installed by federal, state, or local building or energy codes when additions and/or renovations are made to existing buildings are not eligible for this program.

The existing High Efficiency HVAC program is being renamed Residential Air Conditioning and modified to include window/wall units, to restructure the incentives paid for central systems and to exclude measures not cost-effective. This program will be made available to all of FPL's existing Residential customers. The incentives will be issued to the customers at the time the customer purchases a qualifying unit(s) from a qualifying participating contractor.

The Duct Repair measure, which is currently part of the H.E.L.P. program, will be offered as a stand alone program. The Duct System Testing and Repair program will be expanded to include multi-family dwellings and small, non-demand commercial/industrial customers. The Low Cost portion of the H.E.L.P. program is being discontinued because, as shown in FPL's CEGRR filing, the low cost measures are not cost-effective.

The existing Conservation Water Heating program is being revised. It is renamed the Residential Heat Recovery Water Heating Program, and heat recovery units (HRU) will continue to be offered with revised incentives. The solar water heating portion of the existing program is being modified and proposed as an R&D project. This project will try to identify market segments and Residential solar water heating technologies that will be cost-effective.

The On Call Program and the Residential Conservation Services (RCS) program have not been revised.

B. DETAILED PROGRAM DESCRIPTIONS

RESIDENTIAL BUILDING ENVELOPE PROGRAM

I. Program Description

The Residential Building Envelope Program is designed to encourage qualified customers to install energy-efficient building envelope measures that cost-effectively reduce FPL's coincident peak air conditioning load and customer energy consumption. The objective is accomplished by providing incentives to customers to facilitate the installation of efficient building envelope measures.

FPL proposes that the Residential Building Envelope Program will replace FPL's existing Residential Window Treatment and Ceiling Insulation Programs originally approved as a part of FPL's Demand Side Management Plan for the 90's. Substantive changes to these programs include: 1) coupling FPL's existing Ceiling Insulation and Window Treatment programs into one program, 2) including high performance replacement windows, such as low-e glass, 3) including up to R-30 attic/ceiling/roof insulation, and 4) reducing incentive payment levels. FPL proposes to implement the above modifications in the third quarter of 1995 based on Commission approval in June 1995.

FPL plans to make residential customers aware of this program through contractors, retail outlets and other trade allies, appropriate advertising and promotion activities, as well as direct contact with potential participants by FPL personnel.

FPL plans to continue to facilitate the application of this program to potential low income participants. This will be accomplished by: 1) expanding the program to include up to R-30 attic/ceiling/roof insulation and, 2) targeting public agencies and governmental housing authorities for program education and implementation. An example of this effort is the potential qualification of public agency or housing authority personnel to install measures as participating contractors, thus, assisting in lowering the installation costs of measures for low income participants. FPL also will assist agencies in the selection of qualified contractors for the installation of qualifying measures, if requested to do so.

II. Description of Program Administration

The Residential Building Envelope Program will be available to all existing residential customers served by FPL who have whole-house electric air conditioning. Whole-house electric air conditioning is defined as a central system(s) or sufficient window/wall units to provide cooling to the majority of the living spaces of the house. Building envelope measures that are required to be installed, by federal, state, or local building or energy codes when additions and/or renovations are made to existing buildings are not eligible for incentives offered by this program.

An energy audit must be performed under FPL's Residential Conservation Service Program prior to FPL issuing an incentive

(Watt-Saver Certificate) for building envelope measures. energy auditor will determine which components, if any, of the building envelope qualify for an incentive to install an energy efficient measure and the amount of the incentive. Incentive amounts will be based upon the kw reduction specific measures contribute to FPL's coincident peak air conditioning load. Incentive tables will be included in FPL's program standards and will range from \$346 to \$348 per kw, which is based on costeffectiveness analyses included in Appendix A. Watt-Saver Certificates must be given to customers by an FPL representative prior to the installation of any qualifying envelope measure. When the installation is completed, the customer will sign and give the Watt-Saver Certificate to the contractor as partial payment for the installation. The contractor then completes the Watt-Saver Certificate and forwards it to FPL for payment.

To be eligible for incentives, qualifying building envelope measures must be installed according to manufacturer's recommendations and specifications by contractors who are certified, licensed and insured as deemed necessary by applicable state or local governmental agencies and FPL. All performance claims must be supported by testing procedures and documentation which are acceptable to FPL. All installations must be accessible for verification by FPL.

All incentive requests will be tracked by a computer system, which will record a history of the incentive payments made to customers/contractors.

FPL will file Program Standards for this program. The Program Standards will be subject to periodic review and may change over time based on factors such as, but not limited to, technological advances, operational needs, program results, application assumptions, and incentive amounts.

III. Projected Participation and Savings

The projected demand and energy savings for a typical installation are shown on Attachments B and C. The energy consumption and demand reduction projections are based on evaluation results.

The projected participation in this program and associated savings are shown on Attachments A, B and C. The projected participation is based upon FPL's Cost Effective Goals Results Report (CEGRR).

IV. Cost-Effectiveness Analysis

FPL has used the Commission approved cost-effectiveness methodologies required by Rule 25-17.008 to determine the cost-effectiveness of this program. These cost-effectiveness analyses can be found in Appendix A. These analyses show the following benefit-cost ratios: 1.49 Participants, 1.20 RIM, 1.16 TRC for the Residential Building Envelope program.

V. Program Monitoring and Evaluation:

The impact of this program on demand and energy consumption will be evaluated over time by FPL. Data will be collected from nonparticipants in order to establish a non-DSM technology baseline. Participants' data will be compared against nonparticipants' data to establish usage patterns, demand impacts and to validate engineering assumptions.

FPL will utilize any or all three major impact evaluation analysis methods in a manner that most cost-effectively meets the overall impact evaluation objectives—engineering analysis, statistical billing analysis and on-site metering research. As these evaluations proceed, the components to be analyzed and the periods for which data is available will increase, resulting in continual enhancements in the scope and accuracy of reported evaluation results.

Attachment A

Program Name: RESIDENTIAL BUILDING ENVELOPE PROGRAM

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level
1995	3,137,639	2,145,341	44,752	2 %
1996	3,228,813	2,136,304	50,099	4 %
1997	3,316,793	2,127,267	56,974	7 %
1998	3,400,288	2,118,229	66,142	10 %
1999	3,481,111	2,109,192	66,142	13 %
2000	3,560,268	2,100,155	66,142	17 %
2001	3,638,945	2,091,118	16,503	18 %
2002	3,717,227	2,082,080	16,503	18 %
2003	3,794,579	2,073,043	16,503	19 %
2004	3,871,482	2,064,129	0	19 %

Note:

Column a - The total number of customers in the residential rate class.

Column b - The total number of eligible customers in the residential rate class.

Column c - The annual number of participants in the program.

Attachment B

Program Name: RESIDENTIAL BUILDING ENVELOPE PROGRAM

At the Meter

Year	Per Customer kwh Reduction	Per Customer Winter kw Reduction	Per Customer Summer kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
1995	464	0.14	0.19	20,757,746	6,121	8,643
1996	465	0.14	0.19	23,302,938	6,843	9,707
1997	466	0.14	0.19	26,575,218	7,771	11,076
1998	468	0.14	0.20	30, 938, 665	9,009	12,900
1999	468	0.14	0.20	30, 938, 665	9,009	12,900
2000	468	0.14	0.20	30, 938, 665	9,009	12,900
2001	456	0.14	0.19	7,531,982	2,274	3,127
2002	456	0.14	0.19	7,531,982	2,274	3,127
2003	456	0.14	0.19	7,531,982	2,274	3,127
2004	TBD	TBD	TBD	0	0	0

Attachment C

Program Name: RESIDENTIAL BUILDING ENVELOPE PROGRAM

At the Generator

Year	Per Customer kwh Reduction	Per Customer Winter kw Reduction	Per Customer Summer kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
1995	503	0.15	0.22	22,518,709	6,845	9,666
1996	505	0.15	0.22	25,279,820	7,653	10,856
1997	506	0.15	0.22	28,829,701	8,690	12,386
1998	507	0.15	0.22	33,563,316	10,075	14,426
1999	507	0.15	0.22	33,563,316	10,075	14,426
2000	507	0.15	0.22	33,563,316	10,075	14,426
2001	495	0.15	0.21	8,170,950	2,543	3,497
2002	495	0.15	0.21	8,170,950	2,543	3,497
2003	495	0.15	0.21	8,170,950	2,543	3,497
2004	TBD	TBD	TBD	0	0	0

DUCT SYSTEM TESTING AND REPAIR PROGRAM

I. Program Description

The objective of FPL's Duct System Testing and Repair Program is to encourage demand and energy conservation through air leak identification in air conditioning duct systems and repair of those leaks by qualified contractors. This objective is accomplished by performing on-site tests at the customer's premise, identifying leak sites, and providing incentives to customers for leak repairs.

The Duct System Testing and Repair Program is a modification of FPL's Conservation H.E.L.P. Program. FPL's existing Conservation H.E.L.P. Program is comprised of (1) low-cost conservation measures and (2) identification and repair of central HVAC air distribution system ("ADS") leaks. The low-cost portion of the program was initially approved in 1983, and the duct repair portion was approved on August 30, 1991 and made available to FPL customers in February, 1992. The material changes proposed to the Conservation H.E.L.P. program are: 1) the change of the program name to "Duct System Testing and Repair Program", 2) the inclusion of residential multi-family dwellings and small, non-demand commercial/industrial customers, and 3) the discontinuance of the "low-cost conservation measures" portion of this program because they are not cost-effective.

These low cost measures include:

- · water heater insulation wraps,
- · hot water pipe insulation,
- · faucet restrictors,
- · low-flow showerheads (with adapters, if necessary),
- · door sweeps,
- · caulking, and
- weatherstripping

FPL proposes to implement the above modifications in the third quarter of 1995 based on Commission approval in June, 1995.

FPL plans to make residential customers aware of this program through contractors, retail outlets and other trade allies, appropriate advertising and promotion activities, as well as direct contact with potential participants by FPL personnel.

FPL plans to facilitate the application of this program to potential low income participants. This will be accomplished by:

1) including residential multi-family dwellings in duct testing and repairs, and 2) targeting public agencies and governmental housing authorities for program education and implementation. An example of this effort is the potential qualification of public agency or housing authority personnel to perform duct system testing or duct repairs as participating contractors, thus, assisting in lowering the installation costs of measures for low income participants. FPL also will assist agencies in selecting qualifying contractors, if requested to do so. Additionally, by including multi-family

units in the program, the potential to reach low income participants is increased.

IT. Description of Program Administration

The Duct System Testing and Repair Program is available to all residential customers and to small, non-demand commercial/industrial customers. Dwellings must have an electric air conditioning duct system. Eligible dwellings must be one year old or older to qualify for FPL test and repair incentives.

Duct tests are performed by diagnosticians using a blower door device, which is a diagnostic and measurement tool designed to assist in locating air leakage in air conditioning duct systems. There is a charge for this test, and FPL proposes to continue to pay a portion of the customer cost of the test. If leaks are identified during the test, the diagnostician will provide the customer with a diagram of the leak sites and a list of independent FPL participating contractors. Repair incentives are also given to customers by the diagnostician at the time the test is performed. When the repair of the duct system is completed, the customer signs and gives the Watt-Saver Certificate to the contractor as partial payment for the installation. The contractor then completes the Watt-Saver certificate and forwards it to FPL. FPL will perform post installation inspections on a random basis for a sample of participants prior to payment of incentives.

Duct system testing and duct system repairs must be performed by approved and current FPL Testing and Repair Contractors, to qualify for conservation incentives. As part of the Duct System Repair Contractor responsibilities, each contractor must complete an FPL specified training course in testing and repair techniques.

Repair incentives will be based on the amount of time required to repair the leak sites identified and will be included in the Program Standards. Incentives will not exceed a program average of \$629 per kw, which is based on cost-effectiveness analyses included in Appendix A. All incentive requests will be tracked by a computer system, which will record a history of incentive payments made to customers.

FPL will file Program Standards for this program. The Program Standards will be subject to periodic review and may change over time based on factors such as, but not limited to, technological advances, program results, operational needs, application assumptions and incentive amounts.

III. Projected Participation and Savings

The projected demand and energy savings for a typical installation are shown on Attachments B and C. The energy consumption and demand reduction are based on research performed by the Florida Solar Energy Center.

The projected participation and savings associated with this program are shown on Attachments A, B and C. Projected participation is based on FPL's Cost Effectiveness Goals Result Report (CEGRR).

IV. Cost Effectiveness Analysis

FPL has used the Commission Approved cost-effectiveness methodologies required by Rule 25-17.008 to determine the cost-effectiveness of this program. These cost-effectiveness analyses can be found in Appendix A. These analyses show the following benefit-cost ratios: 1.88 Participants, 1.22 RIM, and 1.51 TRC for the Duct System Testing and Repair Program.

Also shown in Appendix A are the cost-effectiveness analyses performed for the low cost measures. These analyses show that none of the low cost measures are cost-effective under both the Participants and RIM tests.

V. Program Monitoring and Evaluation

The impact of this program on demand and energy consumption will be evaluated over time by FPL. Data will be collected from nonparticipants in order to establish a non-DSM technology baseline. Participants' data will be compared against nonparticipants' data to establish usage patterns, demand impacts and to validate engineering assumptions.

FPL will utilize any or all three major impact evaluation analysis methods in a manner that most cost-effectively meets the overall impact evaluation objectives - engineering analysis, statistical billing analysis and on-site metering research. As these evaluations proceed, the components to be analyzed and the periods for which data is available will increase, resulting in continual enhancements in the scope and accuracy of reported evaluation results.

Attachment A

Program Name: DUCT SYSTEM TESTING AND REPAIR PROGRAM

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level
1995	3,137,639	1,073,915	32,167	3 %
1996	3,228,813	1,069,392	36,188	6 %
1997	3,316,793	1,064,869	41,358	10 %
1998	3,400,288	1,060,346	48,251	15 %
1999	3,481,111	1,055,823	48,251	20 %
2000	3,560,268	1,051,300	48,250	24 %
2001	3,638,945	1,046,777	29,982	27 %
2002	3,717,227	1,042,254	29,982	30 %
2003	3,794,579	1,037,727	29,982	33 %
2004	3,871,482	1,033,264	0	33 4

Note:

Column a - The total number of customers in the residential rate class.

Column b - The total number of eligible customers in the residential rate class.

Column c - The annual number of participants in the program.

Attachment B

Program Name: DUCT SYSTEM TESTING AND REPAIR PROGRAM

At the Meter

Year	Per Customer kwh Reduction	Per Customer Winter kw Reduction	Per Customer Summer kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
1995	547	0.65	0.34	17,604,134	20,903	11,027
1996	547	0.65	0.34	19,804,728	23,516	12,405
1997	547	0.65	0.34	22, 634, 124	26,876	14,177
1998	547	0.65	0.34	26,406,478	31,356	16,540
1999	547	0.65	0.34	26, 406, 478	31,356	16,540
2000	547	0.65	0.34	26, 406, 478	31,356	16,540
2001	547	0.65	0.34	16,407,862	19,483	10,277
2002	547	0.65	0.34	16,407,862	19,483	10,277
2003	547	0.65	0.34	16,407,862	19,483	10,277
2004	TBD	TBD	TBD	0	0	0

Attachment C

Program Name: DUCT SYSTEM TESTING AND REPAIR PROGRAM

At the Generator

Year	Per Customer kwh Reduction	Per Customer Winter kw Reduction	Per Customer Summer kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
1995	593	0.73	0.38	19,097,563	23,376	12,331
1996	593	0.73	0.38	21,484,843	26,298	13,873
1997	593	0.73	0.38	24,554,268	30,056	15,854
1998	593	0.73	0.38	28, 646, 646	35,066	18,497
1999	593	0.73	0.38	28, 646, 646	35,066	18,497
2000	593	0.73	0.38	28, 646, 646	35,066	18,497
2001	593	0.73	0.38	17,799,807	21,788	11,493
2002	593	0.73	0.38	17,799,807	21,788	11,493
2003	593	0.73	0.38	17,799,807	21,788	11,493
2004	TBD	TBD	TBD	0	0	0

RESIDENTIAL AIR CONDITIONING PROGRAM

I. Program Description

The Residential Air Conditioning Program is designed to reduce the summer and winter coincident peak demand and energy attributable to central and room heating, ventilating, and air conditioning (HVAC) equipment by encouraging customers, through the use of incentives, to purchase higher efficiency equipment. This program is a modification of FPL'S Residential High Efficiency HVAC Systems Program, originally included in FPL's Demand Side Management Plan for the 90's.

FPL proposes to implement its program modifications in the third quarter of 1995 based on FPSC approval in June, 1995. Substantive changes to this program are: 1) the inclusion of window/wall units, 2) restructuring of incentives paid for central systems, and 3) exclusion of ground source heat pumps, multi-speed condensing units and multi compressor condensing units for central systems.

FPL plans to make residential customers aware of this program through contractors, retail outlets and other trade allies, appropriate advertising and promotion activities, as well as direct contact with potential participants by FPL personnel.

FPL plans to continue to facilitate the application of this program to potential low income participants. This will be accomplished by:

1) targeting public agencies and governmental housing authorities for program education and implementation, and 2) increasing program scope to include window/wall units. Expanding the program to include window/wall units will make the program more attractive to low income customers. Another example of how FPL will facilitate low income participation in this program is the potential qualification of public agency or housing authority personnel to install measures as participating contractors, thus, assisting in lowering the installation costs of measures for low income participants. FPL also will assist agencies in the selection of qualified contractors for the installation of qualifying measures, if requested to do so.

II. Description of Program Administration

The primary method of encouraging prospective customers to participate in the program will be the payment of incentives. The amount of the incentives will vary depending on several factors: the size of the unit being installed, the Seasonal Energy Efficiency Ratio (SEER) or Energy Efficiency Ratio (EER) for central units, and the Energy Efficiency Ratio (EER) for room units. Incentive tables will be included in FPL's Program Standards and will range from \$336 to \$384 per kw which is based on cost effectiveness analyses included in Appendix A. Eligible units can be either a straight cool or a heat pump. Central air conditioning units must have a single speed compressor.

To be eligible for incentives for central air conditioning systems, the customer must make an installation at a residence which has had a Certificate of Occupancy or equivalent for at least one year. All customers can receive an incentive for installing a qualifying room air conditioner.

The incentives for central air conditioning systems will be issued to the customer at the time the customer purchases a qualifying HVAC unit(s) from a qualifying contractor. The contractor fills out the incentive certificate and gives it to the customer for his/her signature. The customer signs and gives the incentive certificate back to the contractor as partial payment for the installation. The contractor then forwards the certificate to FPL for payment.

Customers who purchase a qualifying room air conditioner will complete an incentive certificate, obtained at point of sale, and forward it to FPL along with proof of purchase. The incentive payment will be mailed directly to the customer.

FPL will perform random post installation inspection on a selected sample of participants prior to payment of incentives. All incentive requests will be tracked by a computer system, which will record a history of incentive payments made to customers.

FPL will file Program Standards for this program. The Program Standards will be subject to periodic review and may change over time based upon factors such as, but not limited to, technological advances, operational needs, program evaluation results, application assumptions, and incentive amounts.

III. Projected Participation and Savings

The projected demand and energy savings for a typical installation are shown on Attachments B and C. The energy consumption and demand reduction projections are based on engineering assumptions and existing research data.

The projected participation in this program and associated savings are shown on Attachments A, B and C. Projected participation is based upon FPL's Cost Effective Goals Results Report previously filed with the FPSC on February 18, 1994.

IV. Cost-Effectiveness Analysis

FPL has used the Commission approved cost-effectiveness methodologies required by Rule 25-17.008 to determine the cost-effectiveness of this program. These cost-effectiveness analyses can be found in Appendix A. These analyses show the following benefit-cost ratios: 1.49 Participants, 1.08 RIM, 1.05 TRC for the Residential Air Conditioning Program.

V. Program Monitoring and Evaluation

The impact of this program on demand and energy consumption will be evaluated over time by FPL. Data will be collected from nonparticipants in order to establish a non-DSM technology baseline. Participants' data will be compared against nonparticipants' data to establish usage patterns, demand impacts and to validate engineering assumptions.

FPL will utilize any or all three major impact evaluation analysis methods in a manner that most cost-effectively meets the overall impact evaluation objectives - engineering analysis, statistical billing analysis and on-site metering research. As these evaluations proceed, the components to be analyzed and the periods for which data is available will increase, resulting in continual enhancements in the scope and accuracy of reported evaluation results.

Attachment A

Program Name: RESIDENTIAL AIR CONDITIONING PROGRAM

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level
1995	3,137,639	3,137,639	64,681	2 %
1996	3,228,813	3,228,813	69,088	4.4
1997	3,316,793	3,316,793	74,762	6 %
1998	3,400,288	3,400,288	89,510	9 %
1999	3,481,111	3,481,111	89,510	11 %
2000	3,560,268	3,560,268	89,510	13 %
2001	3,638,945	3,638,945	38,812	14 %
2002	3,717,227	3,717,227	38,812	15 %
2003	3,794,579	3,794,579	38,812	16 %
2004	3,871,482	3,871,482	0	15 %

Note:

Column a - The total number of customers in the residential rate class.

Column b - The total number of eligible customers in the residential rate class.

Column c - The annual number of participants in the program.

Attachment B

Program Name: RESIDENTIAL AIR CONDITIONING PROGRAM

At the Meter

Year	Per Customer kwh Reduction	Per Customer Winter kw Reduction	Per Customer Summer kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
1995	658	0.2530/60	0.26	42,590,288	27	16,746
1996	642	0	0.25	44,346,012	31	17,516
1997	623	0	0.25	46,611,778	35	18,507
1998	632	0	0.25	56,599,218	41	22,415
1999	632	0	0.25	56,599,218	41	22,415
2000	632	0	0.25	56,600,188	41	22,415
2001	782	0	0.30	30, 336, 954	10	11,600
2002	782	0	0.30	30, 336, 954	10	11,600
2003	782	0	0.30	30, 336, 954	10	11,600
2004	TBD	TBD	TED	0	0	0

Attachment C

Program Name: RESIDENTIAL AIR CONDITIONING PROGRAM

At the Generator

Year	Per Customer kwh Reduction	Per Customer Winter kw Reduction	Per Customer Summer kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
1995	714	0.00	0.29	46, 203, 393	30	18,728
1996	696	0.00	0.28	48,108,063	35	19,588
1997	676	0.00	0.28	50, 566, 042	39	20,697
1998	686	0.00	0.28	61,400,758	46	25,067
1999	686	0.00	0.28	61,400,757	46	25,067
2000	686	0.00	0.28	61,401,809	46	25,067
2001	848	0.00	0.33	32,910,560	11	12,972
2002	848	0.00	0.33	32,910,560	11	12,972
2003	848	0.00	0.33	32,910,560	11	12,972
2004	TBD	TBD	TBD	0	0	0

RESIDENTIAL LOAD MANAGEMENT PROGRAM ("ON CALL" PROGRAM)

Program Description

The On Call Program is designed primarily to reduce system peak demand but it also reduces energy consumption. The On Call Program involves the installation of direct load control equipment on selected customer end-use equipment to allow FPL to control customer loads on an as needed basis. This is an existing program which FPL plans to continue offering without any modifications.

FPL plans to make residential customers aware of this program through contractors, appropriate advertising and promotion activities, as well as direct contact with potential participants by FPL personnel.

II. Description of Program Administration

FPL's On Call Program is available to all residential customers who are individually metered (i.e., who do not receive service through commonly owned facilities of condominium, cooperative or homeowners' associations) and who have one or more of the following electrical appliances/equipment: central electric air conditioners, central electric space heaters, conventional electric water heaters and swimming pool pumps. A customer may sign up for one, or more than one, of these appliances/equipment (with the exception of electric space heating, which is eligible only in combination with one of the other equipment types).

Customers who participate in the Program will be eligible based on three primary factors: whether the customer has the proper eligible loads, whether their service characteristics (voltage, etc.) are compatible with existing load control equipment, and whether the customer receives service from a substation which has load control equipment installed. A copy of the current On Call Program tariff sheets, Schedule RSL, is attached.

Once the customer signs-up for the program, the installation request will be sent to a contractor for installation. Once the installation is completed, the contractor sends the paperwork to FPL, which is then entered into the Load Management Information System (LMIS), resulting in the activation of the equipment at the customer's facility. Upon installation and inspection of the equipment, the customer will receive a monthly credit, which may vary seasonally, on his/her electric bill.

The incentives will be paid as specified in the On Call Program tariff sheets, Schedule RSL. FPL maintains an internal audit trail for all incentive payments by means of LMIS. This computer database maintains interview and installation information for each program participant as well as a history of all incentives paid.

III. Projected Participation and Savings

The projected demand and energy savings for a typical installation are shown on Attachments B and C. The energy consumption and

demand reduction projections are based on the program monitoring and evaluation results performed to determine the demand reductions obtained for the On Call Program.

The projected participation and savings from this program are shown on Attachments A, B and C. Projected participation and savings are based upon FPL's Cost Effective Goals Results Report (CEGRR).

IV. Cost-Effectiveness Analysis

FPL has used the Commission approved cost-effectiveness methodologies required by Rule 25-17.008 to determine the cost-effectiveness of this program. These cost-effectiveness analyses can be found in Appendix A. These analyses show the following benefit-cost ratios: infinite Participants, 1.43 RIM, 3.39 TRC for the On Call Program.

V. Program Monitoring and Evaluation

The impact of this program on demand and energy consumption will be evaluated over time by FPL. Data will be collected from nonparticipants in order to establish a non-DSM technology baseline. Participants' data will be compared against nonparticipants' data to establish usage patterns, demand impacts and to validate engineering assumptions.

FPL will utilize any or all three major impact evaluation analysis methods in a manner that most cost-effectively meets the overall

impact evaluation objectives - engineering analysis, statistical billing analysis and on-site metering research. As these evaluations proceed, the components to be analyzed and the periods for which data is available will increase, resulting in continual enhancements in the scope and accuracy of reported evaluation results.

Attachment A

Program Name: RESIDENTIAL LOAD MANAGEMENT (ON CALL) PROGRAM

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level
1995	3,137,639	2,022,308	55,000	3 %
1996	3,228,813	2,088,485	50,000	5 %
1997	3,316,793	2,152,344	45,000	7 %
1998	3,400,288	2,212,948	40,000	9 %
1999	3,481,111	2,271,612	35,000	10 %
2000	3,560,268	2,329,067	35,000	11 %
2001	3,638,945	2,386,174	9,977	11 %
2002	3,717,227	2,442,993	9,977	11 %
2003	3,794,579	2,449,138	9,977	12 %
2004	3,871,482	2,455,261	0	12 %

Note:

Column a - The total number of customers in the residential rate class.

Column b - The total number of eligible customers in the residential rate class.

Column c - The annual number of participants in the program.

Attachment B

Program Name: RESIDENTIAL LOAD MANAGEMENT (ON CALL) PROGRAM

At the Meter

Year	Per Customer kwh Reduction	Per Customer Winter kw Reduction	Per Customer Summer** kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
1995	42	0.97	1.03	2,305,600	53,350	56,650
1996	42	0.97	1.03	2,096,000	48,500	51,500
1997	42	0.97	1.03	1,886,400	43,650	46,350
1998	42	0.97	1.03	1,676,800	38,800	41,200
1999	42	0.97	1.03	1,467,200	33,950	36,050
2000	42	0.97	1.03	1,467,200	33,950	36,050
2001	42	0.97	1.03	418,219	9,677	10,276
2002	42	0.97	1.03	418,219	9,677	10,276
	42	0.97	1.03	418,219	9,677	10,276
2003	TBD	TBD	TED	0	0	0

Note:

Per customer winter kw reduction for high system load days.

^{** -} Per customer summer kw reduction for high system load days.

Attachment C

Program Name: RESIDENTIAL LOAD MANAGEMENT (ON CALL) PROGRAM

At the Generator

		At t	he Generato	T Company of the Comp		
	Per Customer kwh	Per Customer Winter kw	Per Customer Summer* kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
Year	Reduction	Reduction	1 1200 1 1200	2,501,193	59,662	63,353
1995	46	1.08	1.15		54,238	57,593
1996	46	1.08	1.15	2,273,812		51,834
	46	1.08	1.15	2,046,431	48,815	
1997		1.08	1.15	1,819,050	43,391	46,075
1998	46	The second of the	THE STREET CONTROLS	1,591,668	Committee of the commit	40,315
1999	46	1.08	1.15		THE RESERVE OF THE PARTY OF THE	40,315
2000	46	1.08	1.15	1,591,668		11,492
	46	1.08	1.15	453,699	10,822	
2001			1.15	453,699	10,822	11,492
2002	46	1.08	0.0000000000000000000000000000000000000	453,699	10,822	11,492
2003	46	1.08	1.15	S SINGLE LEGICALISM	0	0
2004	TBD	TBD	TED	0	DE SE	

Notes:

⁻ Per customer winter kw reduction for high system load

^{** -} Per customer summer kw reduction for high system load days.

RATE SCHEDULE RSL

RESIDENTIAL LOAD MANAGEMENT PROGRAM (FPL *ON CALL* PROGRAM)

SCHEDULE: RSL

AVAILABLE:

Available only within the geographic areas served by the Company's Load Management System.

APPLICATION:

To Customers receiving service under Rate Schedule RS-1 who elect to participate in this program and who utilize at least one of the following installed electrical appliances on the premises:

- 1. Conventional electric water heater
- 2. Central electric air conditioning
- 3. Swimming pool pump (including pool sweeps as appropriate)
- 4. Central electric space heating*

*Central electric space heating systems alone are ineligible for program participation. These systems are eligible for program participation only when one or more of the other 3 appliances listed above is signed up for participation.

This schedule is not applicable for service to commonly-owned facilities of condominium, cooperative, or homeowners' associations.

SERVICE:

The same as specified in Rate Schedule RS-1.

LIMITATION OF SERVICE:

The same as specified in Rate Schedule RS-1. The specified electrical appliances shall be interrupted at the option of the Company by means of load management equipment installed on the Customer's premises.

MONTHLY CREDIT:

Customers receiving service under this schedule will receive a credit on the monthly bill as follows:

DEVICE (OPTION)		APPLICABILITY	CREDIT
1.	Conventional electric water beater	Year-round	\$ 3.50
2	Central electric air conditioning (Option C)	April-October	\$ 6.00
3.	Central electric air conditioning (Option S)	April-October	\$ 9.00
4.	Swimming pool pump	Year-round	\$ 3.00
5.	Central electric space beating (Option C)	November-March	\$ 2.00
6.	Central electric space heating (Option S)	November-March	\$ 4.00

Total monthly credit shall not exceed 40 percent of the Rate Schedule RS-1 "energy charge" actually incurred for the month (if the Budget Billing plan is selected, actual energy charges will be utilized in the calculations, not the levelized charges) and no credit will be applied to reduce the minimum bill specified on Rate Schedule RS-1.

Note: Option C or Option S (listed below) may be selected for either central air conditioning or heating systems. If both appliance types are participating in the program, the same option must be selected.

(Continued on Sheet No. 8.208)

(Continued from Sheet No. 8.207)

INTERRUPTION SCHEDULES FOR ELECTRICAL APPLIANCES

The Customer's participating electrical appliances will be interrupted only during the following periods except under emergency conditions:

April 1 through October 31: 2 p.m. to 10 p.m.

November I through March 31; 5 a.m. to 11 a.m. 4 p.m. to 10 p.m.

The interruption schedules available for each appliance are as follows:

- Conventional electric water heating equipment may be interrupted up to, but not to exceed, 240 minutes per day.
- 2. Central electric air conditioning equipment may be interrupted under one of the following options selected by the Customer.

Option C equipment may be interrupted an accumulated total of 15 minutes during any 30 minute period with a cumulative interruption time of up to 180 minutes per day.

Option S equipment may be interrupted up to, but not to exceed, 180 minutes per day.

- 3. Swimming pool pump equipment may be interrupted up to, but not to exceed, 240 minutes per day.
- Central electric space heating equipment may be interrupted under one of the following options selected by the Customer:

Option C equipment may be interrupted an accumulated total of 15 minutes during any 30 minute period with a cumulative interruption time of up to 180 minutes per day.

Option 5 equipment may be interrupted up to, but not to exceed, 180 minutes per day.

The limitations on interruptions of electrical equipment shall not apply during emergencies on the Company's system or to interruptions caused by force majeure or other causes beyond the control of the Company.

TERM OF SERVICE:

During service under this schedule, a Customer may change interruption options or the selection of electrical appliances connected to the load management equipment or discontinue service under this schedule by giving the Company 7 days advance notice. If the Customer requests to have one or more appliances removed from participation in the program, the Customer will be ineligible to participate with such appliance(s) again in the program for one year (12 months) from the time participation ended.

SPECIAL PROVISIONS

- The Company shall not be required to install load management equipment if the installation cannot be economically justified for reasons such as: excessive installation costs, oversized/undersized heating or cooling equipment or abnormal utilization of equipment, including vacation or other limited occupancy residences.
- Billing under this schedule will commence upon the installation and inspection of the load management equipment.
- 3. Multiple units of any particular appliance type must all be connected with load management equipment to qualify for the credit attributable to that appliance type. In such circumstances, only a single credit for that appliance type will be applied. Pool sweeps, when coupled with pool pumps, are included in this category.

(Continued on Sheet No. 8.209)

(Continued from Sheet No. 8,208)

- 4. Installation of the load management equipment in the Customer's home is to be the sole responsibility of a licensed, independent contractor. The Customer agrees that the Company will not be liable for any damages or injuries that may occur as a result of the interruption or restoration of electric service pursuant to the terms of this schedule.
- The following types of electric water heaters are ineligible for participation in the program: solar water heaters, heat recovery units and heat pump water heaters.
- If the Company determines that the Customer no longer uses one or more of the appliances signed up for program
 participation, the Company has the right to remove the appropriate load management equipment and to discontinue the
 appropriate credits.
- 7. The Customer shall give the Company and the licensed, independent contractor reasonable access for installing, maintaining, testing and removing the Company's load management equipment, and for verifying that the equipment effectively controls the Customer's appliances as intended by this schedule.
- 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, service under this schedule may be discontinued and the Customer billed for all prior load management credits received over a period not to exceed six months.
- 9. If the Company determines that its load management equipment on the Customer's premises has been rendered ineffective by mechanical, electrical or other devices or actions, the Company may discontinue the Customers participation in the program and bill for all expenses involved in removal of the load management equipment, plus applicable investigative charges. The Company may rebill all prior load management credits received by the Customer from an established tampering date. If such a date cannot be established, rebilling shall be for the previous twelve months.

RESIDENTIAL HEAT RECOVERY WATER HEATING PROGRAM

Program Description

The Residential Heat Recovery Water Heating Program is designed to reduce the summer and winter coincident peak demand and energy attributable to electric resistance water heating equipment by encouraging customers, through the use of incentives, to purchase heat recovery units. This program is a modification of FPL's Conservation Water Heating Program approved as part of FPL's Demand Side Management Plan for the 90's. FPL proposes to implement the above modifications in the third quarter of 1995 based on FPSC approval in June, 1995. Substantive changes to this program are: 1) the exclusion of solar water heating units, which will be addressed in a separate research project, and 2) restructuring of incentives.

FPL plans to make residential customers aware of this program through contractors and other trade allies, appropriate advertising and promotion activities, as well as direct contact with potential participants by FPL personnel.

FPL plans to facilitate the application of this program to potential low income participants. This will be accomplished by: 1) targeting public agencies and governmental housing authorities for program education and implementation, and 2) increasing incentives for heat recovery units. An example of how FPL will facilitate low income participation in this program is the potential qualification

of public agency or housing authority personnel to install measures as participating contractors. This should lower the installation costs of measures for low income participants. FPL also will assist agencies in the selection of qualified contractors for the installation of qualifying measures, if requested to do so.

II. Description of Program Administration

The primary method of encouraging prospective customers to participate in the program will be the payment of incentives. The amount of the incentives will vary depending on several factors, including the size of the central air conditioning system and the net superheat recovery of the heat recovery unit. Incentive tables will be included in FPL's Program Standards and will average \$509 per summer kw through the year 2000 and \$632 per summer kw from 2001 through 2003. This is based on cost effectiveness analyses found in Appendix A.

The incentives will be issued to the customer at the time a heat recovery unit is installed by a qualifying contractor. When the installation is completed, the contractor fills out the incentive certificate and gives it to the customer for his/her signature. The customer signs and gives the incentive certificate back to the contractor as partial payment for the installation. The contractor then forwards the certificate to FPL for payment.

FPL will perform random post installation inspection on a selected sample of participants prior to payment of incentives. All

incentive requests will be tracked by a computer system, which will record a history of incentive payments made to customers.

The Residential Heat Recovery Water Heating Program applies only to dwelling units that have been served by FPL for at least one year.

FPL will provide Program Standards for this program. The Program Standards will be subject to periodic review and may change over time based on factors such as, but not limited to, technological advances, operational needs, program results, application assumptions, and incentive amounts.

III. Projected Participation and Savings

The projected demand and energy savings for a typical installation are shown on Attachments B and C. The energy consumption and demand reduction projections are based on engineering assumptions and existing data.

The projected participation in this program and associated savings are shown on Attachments A, B and C.

This heat recovery water heating measure was not shown as contributing to energy and demand reduction goals for FPL in the Cost Effectiveness Goals Results Report (CEGRR), as this measure did not pass the Participants Test based on the data available at

the time of the report. Recent analysis, however, indicates that this measure will pass the Participants Test based on the following new findings and assumptions:

- Actual 1993 and 1994 year-to-date data from the existing program database indicates that the installed cost is less than that used for the CEGRR;
- By encouraging participants to install these units at the time of central HVAC system change out, installation costs can be reduced; and
- Raising the incentive level will encourage higher program participation, which, in turn, should help reduce installed cost from increased installation volume and added competition.

IV. Cost-Effectiveness Analysis

FPL has used the Commission approved cost-effectiveness methodologies required by Rule 25-17.008 to determine the cost-effectiveness of this program. These cost-effectiveness analyses can be found in Appendix A. These analyses show the following benefit-cost ratios: 1.05 Participants, 1.03 RIM, 0.74 TRC for the Residential Heat Recovery Water Heating Program.

V. Program Monitoring and Evaluation

The impact of this program on demand and energy consumption will be evaluated over time by FPL. Data will be collected from nonparticipants in order to establish a non-DSM technology baseline. Participants' data will be compared against nonparticipants' data to establish usage patterns, demand impacts and to validate engineering assumptions.

FPL will utilize any or all three major impact evaluation analysis methods in a manner that most cost-effectively meets the overall impact evaluation objectives - engineering analysis, statistical billing analysis and on-site metering research. As these evaluations proceed, the components to be analyzed and the periods for which data is available will increase, resulting in continual enhancements in the scope and accuracy of reported evaluation results.

Attachment A

Program Name: RESIDENTIAL HEAT RECOVERY MATER HEATING PROGRAM

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level
1995	3,137,639	2,480,304	1,248	*
1996	3,228,813	2,552,377	No cruise	0.05 %
1997	3,316,793	7 THE LOCAL PROPERTY AND RESIDENCE AND RESID	2,697	0.15 %
1998	3,400,288	2,621,925	2,751	0.26 %
1999	3,481,111	2,687,928	2,806	0.35 %
2000		2,751,818	2,862	0.45 %
2001	3,560,268	2,814,392	2,919	0.54 %
	3,638,945	2,876,586	2,978	
2002	3,717,227	2,938,468	Manufacture -	0.63 %
2003	3,794,579	2,999,615	3,037	0.72 %
2004	3,871,482	3,062,007	3,098	0.81 %
		3,062,007	0	0.80 %

Note:

- Column a The total number of customers in the residential rate class.
- Column b The total number of eligible customers in the residential rate class.
- Column c The annual number of participants in the program.

Attachment B

Program Name: RESIDENTIAL HEAT RECOVERY WATER HEATING PROGRAM

At the Meter

Year	Per Customer kwh Reduction	Per Customer Winter kw Reduction	Per Customer Summer kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
1995	579	0.00	0.22	722,592	0	275
1996	579	0.00	0.22	1,561,563	0	593
1997	579	0.00	0.22	1,592,829	0	605
1998	579	0.00	0.22	1,624,674	0	617
1999	579	0.00	0.22	1,657,098	0	630
2000	579	0.00	0.22	1,690,101	0	642
2001	579	0.00	0.22	1,724,262	0	655
2002	579	0.00	0.22	1,758,423	0	668
2003	579	0.00	0.22	1,793,742	0	682
2004	TBD	TBD	TBD	0	0	0

Attachment C

Program Name: RESIDENTIAL HEAT RECOVERY WATER HEATING PROGRAM

At the Generator

Year	Per Customer kwh Reduction	Per Customer Winter kw Reduction	Per Customer Summer kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
1995	628	0.00	0.25	783,892	0	308
1996	628	0.00	0.25	1,694,037	0	663
1997	628	0.00	0.25	1,727,955	0	677
1998	628	0.00	0.25	1,762,502	0	690
1999	628	0.00	0.25	1,797,676	0	705
2000	628	0.00	0.25	1,833,479	0	718
2001	628	0.00	0.25	1,870,538	0	732
2002	628	0.00	0.25	1,907,597	0	747
2003	628	0.00	0.25	1,945,912	0	763
2004	TED	TBD	TED	0	0	0

RESIDENTIAL CONSERVATION SERVICE

I. Program Description

The Residential Conservation Service (RCS) Program is an existing program which FPL intends to continue offering to its residential customers. The RCS Program was approved as part of FPL's Demand Side Management Plan for the 90's.

FPL offers its residential energy audits through the RCS Program. The program provides a free walk through energy audit, a computer generated Class A audit and a customer assisted energy audit. The free, walk through energy audits and the computerized Class A audits are conducted by an FPL representative in order to inform residential customers of cost-effective conservation measures and practices that are suitable for the customer's home. The free, computerized, customer assisted energy audit provide a residence's energy analysis directly to the customer, and is based on the customer's responses to an energy survey.

In addition to providing conservation information, the RCS Program also serves as the vehicle for introducing customers to residential conservation incentive programs featuring incentive payments for qualified customers to help them overcome the initial cost of implementing conservation measures.

During the RCS Program audit, the auditor discusses a variety of

potential conservation measures with the customer. In addition, if the customer is eligible for participating in any, or all, of the residential conservation programs featuring incentive payments, the customer receives a Watt-\$aver Certificate(s), which can be used by the customer as a partial payment for the cost of the conservation measure with the participating contractors. Upon request, FPL's representative also provides a listing of participating contractors from which the customer can choose.

II. Description of Program Administration

The number of audits which FPL will conduct in the future are directly correlated to the number of projected participants for the residential conservation programs featuring incentive payments. FPL has conducted over 370,000 RCS audits since October of 1990. During the same time period, there have been over 435,000 combined participants in all of the residential conservation incentive programs for which an RCS audit is required.

III. Projected Participation and Savings

FPL does not project demand or energy savings associated with the performance of a home energy audit. Demand and energy savings attributable to the implementation of measures identified during the performance of a residential home energy audit will be reported through their respective programs. It should be pointed out that FPL recommends measures beyond FPL's programs, and there should be additional savings associated with these measures.

IV. Cost Effectiveness Analysis

Since FPL does not project demand or energy savings from the implementation of this program, a cost effectiveness analysis is not applicable, and FPL requests that the Commission waive the requirements of showing this program's cost-effectiveness, as it has in the past.

V. Program Monitoring and Evaluation

Since FPL does not project demand or energy savings from the implementation of this program, separate monitoring and evaluation is not necessary for RCS. Savings achieved through other programs will be monitored and evaluated in those programs.

Attachment A

Program Name: RESIDENTIAL CONSERVATION SERVICE

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Program Participants	(d) Cumulative Penetration Level
1995	3,137,639	3,137,639	60,000-85,000	1.98-2.78
1996	3,228,813	3,228,813	60,000-85,000	3.74-5.34
1997	3,316,793	3,316,793	60,000-85,000	5.48-7.78
1998	3,400,288	3,400,288	60,000-85,000	7.14-10.04
1999	3,481,111	3,481,111	60,000-85,000	8.64-12.24
2000	3,560,268	3,560,268	60,000-85,000	10.14-14.34
2001	3,638,945	3, 638, 945	60,000-85,000	11.5%-16.4%
2002	3,717,227	3,717,227	60,000-85,000	12.94-18.34
2003	3,794,579	3,794,579	60,000-85,000	14.24-20.24
2004	3,871,482	3,871,482	0	13.94-19.84

Note:

- Column a The total number of customers in the residential rate class.
- Column b The total number of eligible customers in the residential rate class.
- Column c The annual number of participants in this program.

Attachment B

Program Name: RESIDENTIAL CONSERVATION SERVICE

At the Meter

Year	Per Customer kwh Reduction	Per Customer Winter kw Reduction	Per Customer Summer kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
1995	NA	NA	10.	200	NA	NA
1996	NA	NA	163.	XX	NA	NA
1997	NA	NA	NA.	10.	NA	NA
1998	NA.	NA	NA.	10.	NA	NA
1999	NA	NA	NA.	X .	MA	NA
2000	NA	NA	NA.	10.	NA	NA
2001	NA	NA H	10	-	NA	NA
2002	NA.	NA.	10.	TA	NA	NA
2003	NA.	NA	MA	10.	NA	NA
2004	NA	NA	NA	10.	NA	NA

Attachment C

Program Name: RESIDENTIAL CONSERVATION SERVICE

At the Generator

Year	Per Customer kwh Reduction	Per Customer Winter kw Reduction	Per Customer Summer kw Reduction	Total Annual kwh Reduction	Total Annual Winter kw Reduction	Total Annual Summer kw Reduction
1995	N/A	NA.	22.	m	MA	NA
1996	NA	NA	200	10.	NA	NA
1997	NA	NA NA	20.	10.	NA	NA
1998	NA	NA.	ž).	10.	NA	NA
1999	MA	NA.	12.)A	KA	NA
2000	NA	NA A	14	•	MA	NA
2001	NA	XA	XA.	100	NA	NA
2002	NA.	NA.	10.	10.	NA	NA
2003	NA	NA T	NA.	20.	NA.	NA
2004	NA	NA	NA.	•	NA	NA

SECTION III - COMMERCIAL/INDUSTRIAL PROGRAMS

A. Commercial/Industrial Program Overview

FPL's DSM Plan offers nine (9) Commercial/Industrial Conservation Programs. The existing programs in the C/I portfolio will be combined into seven (7) programs, and two (2) new programs, Building Envelope and General Service (GS) Load Management, will be introduced.

FPL will continue to offer with some modifications the following programs: Efficient Motors, Off Peak Battery Charging, C/I Load Control, Efficient Lighting, and Business Custom Incentive. Some of the modifications being proposed for these programs are:

Efficient Motors - Participation in the program is available only to General Services (CS) customers. The program qualifying motor horsepower size range is being reduced from 1-100 HP to 1-25 HP. The minimum nominal full load efficiency required per qualifying motor size is being increased. The prescribed incentive level is being reduced. These changes are a result of cost-effectiveness analyses.

off Peak Battery Charging - Other battery charging applications such as electric material handling equipment are being added to the program. The other modification is a reduction in the maximum incentive level. This revision was necessary due to changes in the assumptions associated with

The other proposed new program is General Service (GS) Load Management. This program is an extension of the On Call Program. Through this program small non-demand customers will now be able to take advantage of load control.